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Food: from farm to fork statistics

2008 edition

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FROM FARM TO FORK STATISTICS

This pocketbook provides statistical information on how the food chain in Europe evolves from the farm to the fork. Data are presented tracing the journey of food from the farm to the fork from primary agricultural production, through food processing, wholesale and retail distribution, ending with food consumption.

Information about primary agricultural production includes basic information on the number and types of farm holding and the area of land used for various types of agriculture. It also presents information on intermediate inputs within the production process, for example, providing details on fertilizers, plant protection products or feedingstuffs. The outputs of primary agricultural production include harvested crops, numbers of animals ready for slaughter (generally off-farm) and milk collected.

The next stage in the food chain involves the processing of agricultural output: as cereals, vegetables, fruit, milk, meat or fish are transformed into food products that are more familiar to consumers. This can be a relatively simple operation of grading and then preserving, tinning or freezing foods, or may involve more elaborate transformations, such as the production of ready-to-eat meals.

Before reaching the consumer, most food and drink passes along distribution channels in the form of wholesalers and retailers, or alternatively into restaurants, cafes and bars.

The end of the publication focuses on consumer-related issues, including the price, quality and choice of foods available in shops, markets and other retail outlets, as well as food safety, organic food, and genetically-modified food.

At all stages of the food chain, statistics are presented and balanced by information that highlights some of the main issues and challenges faced by actors in the food chain, including related externalities – for example, the impact of farming on the environment, or health implications associated with unhealthy diets. Details are also provided concerning efforts being made at a European level to improve food production systems through a broad range of policy initiatives and work being carried out by control and monitoring agencies.

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INTRODUCTION

STRUCTURE OF THE PUBLICATION

The aim of this publication is to provide readers with a balanced overview of the data that are available for the various stages along the food chain. The data are drawn principally from the 'farm to fork database' of the statistical office of the European Communities (EUROSTAT). The publication is not an exhaustive reflection of the data that are available in EUROSTAT databases – but, rather, a showcase of those data that are considered as most relevant for providing an overview of the farm to fork chain.

In comparison to the previous edition of this pocketbook, a number of changes have been made:

- the addition of accompanying text, to provide summary analyses and policy context;
- a change in the structure of the publication, to more closely reflect the sequential chain from the farm to the fork;
- the incorporation of associated environmental data and non-food outputs that are a product of the food chain, as well as results from consumer attitude surveys.

The publication is divided into five parts reflecting the farm to fork chain:

(i) an overview;

(ii) the primary production stage;

(iii) the processing stage;

(iv) the distribution stage, and;

(v) consumption and consumer-related issues.

As far as possible, a common approach has been taken to summarise the primary production, processing and distribution stages of the chain; as expressed by a structural review (such as information on the number of agricultural holdings/enterprises and the number of persons employed), an analysis of inputs, output and values, and where possible an overview of some of the externalities generated (particularly regarding environmental consequences).

The consumer stage of the publication is rather different from the other sections as it looks at consumption and consumption expenditure patterns, consumer price developments, health data, and concludes with a number of survey results concerning consumer attitudes to food related issues.

BACKGROUND INFORMATION

The European statistical system

The European statistical system comprises EUROSTAT and the national statistical offices, ministries, agencies and central banks that collect official statistics across the European Union Member States, Iceland, Liechtenstein, Norway and Switzerland. The European statistical system concentrates on European Union policy areas, although harmonisation has extended to a wide range of statistical fields.

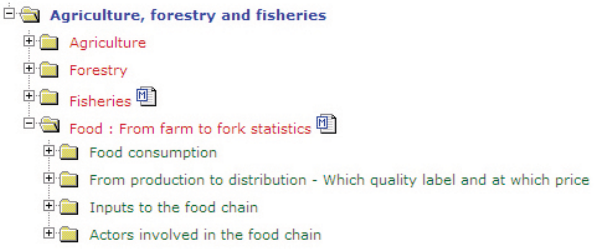
Data sources

Free access to data on the European Union is available through the EUROSTAT website, which can be found at: http://ec.europa.eu/eurostat. The website presents a vast array of information in the form of tables, databases, methodology and publications; these are structured primarily according to subjects/themes.

The survey (or data collection exercise) used as the source of information is generally provided in the source (for example, Economic accounts for agriculture or Purchasing power parities).

In addition, a code (such as 'FOOD_ACT1') has often been inserted as part of the source. This code allows the reader to easily access the most recent data on the EUROSTAT website (note that the data on the website is frequently updated and may also be more detailed or presented with a number of different measurement units). These codes refer to database tables that require the user to select from a list of dimensions/fields in order to return the data. In the top-right corner of the EUROSTAT homepage, there is a field entitled 'Quick search' – place the data code in this field and click on the 'Search' button in order to locate the path to the dataset.

EUROSTAT have grouped together the most important data in relation to farm to fork statistics into one sub-domain. This dataset may be found within the theme for agriculture, forestry and fisheries when browsing the data navigation tree.



Symbols

The colon (:) is used in tables to represent data that are not available, either because the values were not provided by the national statistical authority or because the values are confidential or unreliable. In figures (charts/graphs) missing information is footnoted as not available. A dash (-) is used to indicate values that are not relevant or not applicable.

Abbreviations

AWU	Annual work unit
BMI	Body mass index
BSE	Bovine spongiform encephalopathy (so-called mad cow disease)
CAP	Common Agricultural Policy
CN	Combined nomenclature (used for external trade statistics)
CPA	Classification of products by activity
EAGGF	European Agricultural Guidance and Guarantee Fund
EAA	Economic accounts for agriculture
EFSA	European Food Safety Authority
ESA	European system of accounts
ESU	Economic size unit
EU	European Union
EUR	Euro
EUROSTAT	Statistical office of the European Communities
FSS	Farm structure survey
FVO	Food and Veterinary Office

g	Gram
GATT	General Agreement on Tariffs and Trade
GDA	Guideline daily amounts
GDP	Gross domestic product
GM	Genetically modified
GMO	Genetically modified organisms
GVA	Gross value added
ha	Hectare
HBS	Household budget survey
ICT	Information and communication technologies
Kcal	Calories
kg	Kilogram
km	Kilometre
LSU	Livestock unit
m	Metre
m^2	Square metre
m^3	Cubic metre
mg	Milligram
n.e.c.	Not elsewhere classified
NACE	Classification of economic activities in the European Community
PDO	Protected designation of origin
PGI	Protected geographical indication
PLI	Price level index
PPP	Purchasing power parity
PPS	Purchasing power standard
PRODCOM	Statistics by product (for manufactured goods)
RASFF	Rapid alert system for food and feed
RDA	Recommended daily allowances
SBS	Structural business statistics
SGM	Standard gross margin
SITC	Standard international trade classification
UAA	Utilised agricultural area
VAT	Value added tax
vCJD	Variant Creutzfeldt-Jakob disease
VTEC	Verocytotoxinogenic Escherichia coli
µg	Microgram
%	Percent

European Union aggregates and Member States

EU	European Union
EU-27	European Union of 27 Member States from 1 January 2007 (BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK)
EU-25	European Union of 25 Member States from 1 May 2004 to 31 December 2006 (BE, CZ, DK, DE, EE, IE, EL, ES, FR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, SI, SK, FI, SE, UK)
EU-15	European Union of 15 Member States from 1 January 1995 to 1 May 2004 (BE, DK, DE, IE, EL, ES, FR, IT, LU, NL, AT, PT, FI, SE, UK)

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

USA	United States of America

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Overview

Context

Within Europe, concerns about food have largely moved away from issues of ensuring an adequate supply and choice of products towards issues of food safety, animal and plant welfare, labelling and traceability. These changes in emphasis have been shaped by scientific and technological advances within the food chain on the one hand, and health (such as so-called mad cow disease (BSE) and dioxin-contaminated feed) or environmental concerns on the other.

The commitment to secure safe and healthy food for citizens within the EU requires an on-going assessment of EU policies at each stage of the food chain. Arguably, the most far-reaching changes in recent times have concerned the Common Agricultural Policy (CAP), general food law, and food hygiene rules.

- The CAP has evolved from a model to promote self-sufficiency and ensure the security of food supply to one that is increasingly concerned with quality issues (including food safety standards) and the environment. The CAP reform of 2003 changed the way the EU supports its farm sector, moving away from production-linked subsidies towards new 'single farm payments' that (to some degree) reflect issues such as the respect of environmental, food safety and animal welfare standards.
- A Regulation of the European Parliament and Council of 28 January 2002 ((EC) No 178/2002) laying down the general principles and requirements of food law aims to provide a coherent approach to the development of food legislation, by assuring a high level of protection of human life and health, taking into account the protection of animal health and welfare, plant health and the environment. It lays down the provisions for feed and food traceability, underlines the consumer's need for independent and publicly available scientific opinion and strengthens the rapid alert system for food and feed.

- Food hygiene rules have extended far beyond the initial 1964 rules for fresh meat; Regulation (EC) No 852/2004 of the European Parliament and of the Council was adopted in April 2004, and provides general rules on food and feed hygiene, as well as specific hygiene rules for food of animal origin. This Regulation seeks to ensure the hygiene of foodstuffs at all stages of the production process, from primary production up to and including sale to the final consumer. Food and feed operators within the EU must be registered and they are fully liable if unsafe food or feed is found in the marketplace. Imported products must meet the same high standards as EU goods under the updated hygiene rules, and regular checks are carried out at EU borders to verify this.

New developments within the food chain lead to additional burdens and further policy attention; there are growing numbers of plants, animals and micro-organisms whose genetic characteristics have been artificially modified (so-called genetically modified organisms or GMOs) in order to improve characteristics such as yields and disease resistance and to reduce reliance on chemical inputs; novel foods (such as dairy products with added plant chemicals – phytosterols – that are thought to reduce cholesterols) are being created in a way that alters nutritional values and aim to improve the efficiency of agricultural and food production; new product ingredients and foodstuffs are being imported into the EU which require the creation and application of new controls and guidelines in order to approve such food and feed.

In addition to product developments, the food chain is also shaped by changes in consumer demand and preferences. For some consumers, environmental considerations about food miles (the distance produce has travelled), food energy use, soil and water degradation, or types of farming practice are determining influences when making consumption choices. For other consumers, health issues concerning food additives, preservatives, or salt/sugar content are important criteria, while economic realities may shape the choices of other consumers. The continued strength of food production in the European Union is likely to depend (at least to some degree) on how the food chain responds to these various challenges.

Structural overview

The food chain is large: it comprises a considerable number of operators, employs vast numbers of people, and generates considerable amounts of value added (as shown in Tables 1.1 to 1.3).

There were 14.4 million agricultural holdings recorded in the EU-27 in 2005, a little under one half (46.6 %) of which were located in Romania and Poland together. However, almost half (46.0 %) of the EU-27's agricultural holdings were small units (typically semi-subsistence holdings) of less than 1 economic size unit (ESU) and in Slovakia (81.2 %), Hungary (78.3 %), Bulgaria (77.9 %) and Romania (71.0 %), this share was considerably higher.

The distribution of food and beverage manufacturing enterprises reflects more closely the economic weight of the Member State economies. The highest concentration was in France, which alone accounted for a little over one fifth (22.0 %) of all the EU-27's food and beverages manufacturing enterprises, while Italy (data are confidential and therefore cannot be included in Table 1.1), Germany and Spain also recorded a high number of enterprises present within these activities.

A different pattern of geographic concentration was evident among food, beverage and tobacco wholesalers and among specialist food retailers; 46.6 % of the EU-27's food, beverage and tobacco wholesalers were located in France, Italy and Spain, while this same group of countries accounted for a clear majority (56.2 %) of the EU-27's specialist food retailers.

Almost twelve and three quarter million persons were employed full-time on agricultural holdings in the EU-27 in 2005. A further 6.6 million persons were employed in restaurants, bars, canteens and catering throughout the EU-27, with just under a quarter of these (23.3 %) working in the United Kingdom. Over one fifth (21.3 %) of the 5.1 million persons estimated to be working in the EU-27's non-specialised food retailing sector were also employed in the United Kingdom, a much higher proportion than in Germany (13.8 %), France (11.8 %) or other Member States.

The food and beverages manufacturing sector of the EU-27 generated EUR 188.2 billion of value added in 2005, which corresponded to EUR 40 147 per person employed, in both cases more than any of the other stages in the farm to fork chain. Value added per person employed was also relatively high in the food,

beverages and tobacco wholesale trade (EUR 39 039 per person employed) and lowest for restaurants, bars, canteens and catering (EUR 16 437 per person employed) and primary agricultural production (EUR 11 726 per full-time labour equivalent).

The structure of agricultural production in the EU-27 in part reflects the different climatic and topographic conditions present in each country that influence growing conditions for crops and pasture, while consumer preferences may also be reflected in what is grown locally. Tables 1.4 to 1.6 show the principal producer countries for a selection of key agricultural products in the EU-27, the self-sufficiency of Member States with respect to these products, and the origin and quantity of imports of food and feed products from outside the EU-27.

The EU-27 harvested an estimated 269.4 million tonnes of cereals in 2006, more than one fifth (22.9 %) of which came from France. France had a self-sufficiency rate for cereals of 191.5 %, suggesting that production was almost double the amount of cereals consumed. Other countries with relatively high self-sufficiency ratios for cereals included Hungary, Bulgaria and Lithuania (all over 160 %). The EU-27 imported 22.4 million tonnes of cereals in 2007 to balance supply and demand, with a little under one half (46.5 %) coming from Brazil and Argentina. In addition, these two countries also provided a little over three quarters (79.3 %) of the 32.3 million tonnes of animal feedingstuffs (mostly soya cake) imported from non-Member countries by the EU-27 in 2007.

In contrast to cereals, many other agricultural products are more perishable and this may explain why they tend to be imported in much smaller quantities. The EU-27 imported 1.6 million tonnes of meat and meat products in 2007 (half of which came from Brazil), and 0.3 million tonnes of dairy products and eggs (mostly from Switzerland and New Zealand).

For a little over 20 years, the volume of milk produced in the EU has been limited by production quotas. An estimated 154.1 million tonnes of milk were produced on farms across the EU-27 in 2005, some 80.9 % of which came from the EU-15 Member States, with more than half (52.2 %) of the EU's total milk production being accounted for by Germany (18.5 %), France (16.6 %), the United Kingdom (9.5 %) and Italy (7.7 %).

Table 1.1: Number of operators across the food chain, 2005 (units)

	Agricul. holdings	Food & bev. manuf.	Food, bev. & tobacco whole.	Special. food retailers	Non-special. food retailers	Restaur., bars, canteens, catering
EU-27	14 406 090	309 702	214 007	508 817	474 688	1 392 298
BE	51 540	7 671	5 402	11 441	6 722	39 952
BG	527 010	5 937	5 741	8 105	22 491	20 932
CZ	41 670	:	:	:	:	:
DK	51 370	1 778	1 821	2 853	3 266	12 077
DE	389 880	32 709	10 187	27 330	20 642	120 514
EE	27 740	425	514	172	920	1 152
IE	132 620	:	1 626	1 964	3 217	9 738
EL	833 120	15 195	15 233	30 037	25 834	79 660
ES	1 069 750	29 353	43 716	122 780	31 295	261 997
FR	567 140	67 985	21 114	47 731	31 190	179 674
IT	1 726 130	:	34 969	115 674	57 127	224 379
CY	45 160	960	489	833	2 171	6 237
LV	128 670	778	1 028	238	2 289	2 255
LT	252 940	1 434	746	174	3 703	2 713
LU	2 450	190	336	254	196	2 341
HU	711 520	6 766	4 092	7 587	18 008	29 593
MT	11 000	:	:	:	:	:
NL	80 600	4 585	6 690	9 780	3 145	31 870
AT	170 350	4 134	2 239	5 474	3 496	30 307
PL	2 476 240	16 998	13 819	28 384	84 064	45 321
PT	323 920	10 268	12 360	31 191	20 292	78 532
RO	4 239 190	10 820	8 219	9 325	62 199	16 651
SI	77 170	826	377	536	964	6 021
SK	68 470	:	419	242	176	954
FI	70 520	1 861	1 059	1 116	3 083	8 675
SE	75 260	3 288	4 368	6 409	5 955	20 816
UK	254 660	6 994	14 104	31 527	28 554	115 083

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT1, FOOD_ACT5, FOOD_ACT8, FOOD_ACT9 and Structural business statistics: SBS_NA_3B_TR)

Table 1.2: Number of persons employed, across the food chain, 2005 (units)

	Agricul. holdings (1)	Food & bev. manuf.	Food, bev. & tobacco whole.	Special. food retailers	Non-special. food retailers	Restaur., bars, canteens, catering
EU-27	12 715 590	4 688 100	1 835 900	1 442 900	*5 100 000*	6 663 400
BE	69 590	96 681	34 733	32 398	89 819	137 819
BG	624 660	106 962	39 478	19 721	76 533	81 895
CZ	151 900	:	:	:	:	:
DK	60 450	:	20 325	11 685	:	76 997
DE	643 230	844 775	211 875	159 626	702 676	812 229
EE	36 900	17 365	5 059	1 122	18 193	11 469
IE	152 380	:	20 890	9 929	69 974	90 005
EL	600 800	83 691	73 724	72 469	95 954	215 906
ES	992 640	389 065	338 554	263 035	391 772	933 375
FR	855 490	:	189 320	102 141	603 782	631 575
IT	1 374 260	:	164 261	218 000	422 989	810 273
CY	28 660	12 671	5 659	1 825	5 892	18 295
LV	137 250	35 461	11 706	1 926	41 361	24 136
LT	221 550	52 355	14 426	1 299	53 349	28 898
LU	3 990	:	6 260	1 238	3 677	11 384
HU	462 740	121 826	31 809	18 938	119 685	100 955
MT	4 060	:	:	:	:	:
NL	173 930	124 379	71 791	56 441	204 973	238 032
AT	166 440	75 885	26 310	22 570	85 991	134 053
PL	2 273 590	438 833	112 128	114 276	399 145	165 019
PT	398 080	104 942	67 012	47 864	94 002	217 031
RO	2 595 590	203 840	95 835	33 087	204 979	74 363
SI	94 980	:	2 348	1 658	23 441	20 912
SK	98 790	:	10 458	2 921	22 604	10 112
FI	83 460	:	8 808	4 537	48 144	40 476
SE	71 100	:	31 902	16 776	81 618	86 506
UK	339 080	463 988	206 779	206 573	1 085 226	1 555 173

(1) Expressed in annual work units (AWUs), which are full-time labour equivalents.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT5, FOOD_ACT8, FOOD_ACT9, Structural business statistics: SBS_NA_3B_TR and Survey on the structure of agricultural holdings: EF_OV_LFFT)

Table 1.3: Value added generated by each stage in the food chain, 2005
(EUR million)

	Agricul. holdings	Food & bev. manuf.	Food, bev. & tobacco whole.	Special. food retailers	Non-special. food retailers	Restaur., bars, canteens, catering
EU-27	149 106	188 214	71 672	24 929	*110 000*	109 526
BE	2 245	5 980	1 967	754	3 487	2 814
BG	1 544	458	127	25	119	124
CZ	916	:	:	:	:	:
DK	2 334	:	1 302	236	:	1 474
DE	12 715	32 987	13 125	3 059	16 968	12 592
EE	208	201	70	7	135	63
IE	2 057	:	2 193	228	2 032	1 988
EL	8 015	2 988	2 037	826	1 818	1 620
ES	24 537	18 441	9 325	4 430	9 849	15 096
FR	28 721	:	9 752	3 240	21 121	17 433
IT	25 948	:	5 916	4 308	9 587	11 944
CY	330	343	154	40	135	425
LV	280	291	174	9	185	99
LT	600	462	130	4	213	80
LU	102	:	376	44	158	346
HU	2 301	1 901	452	84	795	370
MT	58	:	:	:	:	:
NL	8 317	:	5 474	939	3 585	4 370
AT	2 292	3 715	1 774	558	2 326	2 802
PL	6 097	8 391	1 585	658	2 486	708
PT	2 460	2 481	1 508	361	1 599	1 916
RO	6 269	1 328	585	78	548	184
SI	480	:	58	21	484	241
SK	450	:	49	17	125	57
FI	1 372	:	535	202	1 667	1 243
SE	1 178	:	1 630	497	2 402	2 054
UK	7 280	:	10 669	4 142	23 492	28 735

Source: Eurostat (Economic Accounts for Agriculture: AACT_EAA01, European business: EBD_ALL, Structural business statistics: SBS_NA_3B_TR and SBS_NA_3B_SE)

Table 1.4: Output of food chain: main agricultural and food products generated, 2006
(1 000 tonnes)

	Cereals (1)	Fresh veg. (2)	Milk (3)	Bovines	Pigs	Sheep	Poultry
EU-27	*269 398*	:	154 050	8 251	21 791	1 086	:
BE	2 742	:	3 120	269	1 006	1	:
BG	5 532	778	1 508	23	75	18	:
CZ	6 386	:	2 813	80	359	2	231
DK	8 632	245	4 568	129	1 749	2	170
DE	43 475	:	28 488	1 193	4 662	43	1 009
EE	619	33	670	14	35	1	13
IE	2 090	:	5 100	572	209	70	130
EL	3 804	3 640	1 836	61	123	75	154
ES	19 363	:	7 459	671	3 230	227	1 257
FR	61 708	5 654	25 526	1 510	2 263	121	1 722
IT	20 207	13 495	11 787	1 111	1 556	59	628
CY	67	140	193	4	53	3	27
LV	1 159	155	810	21	38	0	21
LT	1 856	151	1 862	47	106	0	66
LU	162	1	269	9	10	0	0
HU	14 467	1 779	1 937	34	489	1	385
MT	:	65	44	1	8	0	4
NL	1 750	4 027	10 978	384	1 265	16	661
AT	4 460	528	3 136	215	505	0	102
PL	21 776	:	11 946	355	2 071	1	1 058
PT	1 167	:	2 195	105	339	12	247
RO	15 759	:	5 833	313	316	99	:
SI	494	79	661	38	34	0	48
SK	2 929	140	1 098	21	122	1	94
FI	3 790	230	2 433	87	208	1	87
SE	4 128	:	3 206	137	264	4	102
UK	*20 878*	2 644	14 574	847	697	330	1 517

(1) Including rice.
(2) Including melons and strawberries.
(3) Unless otherwise stated, 2005; Belgium, Denmark, Greece, Luxembourg and Slovakia, 2004.

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR2, FOOD_IN_PAGR3 and FOOD_IN_PAGR5).

Table 1.5: Self-sufficiency in the main agricultural products, 2006
(%)

	Cereals (1)	Cattle (2)	Pigs (2)	Sheep & goats (2)	Poultry (2)
EU-27	:	:	:	:	:
BE	51.8	:	:	:	:
BG	162.5	:	:	:	:
CZ	106.7	:	:	:	:
DK	106.7	88.6	665.0	28.6	156.8
DE	106.7	122.9	97.3	52.4	87.4
EE	109.5	:	:	:	:
IE	69.5	:	:	:	:
EL	76.8	26.4	37.0	84.9	78.6
ES	69.6	97.6	125.3	108.2	96.3
FR	191.5	106.7	107.3	51.2	133.0
IT	79.1	57.0	66.4	40.7	109.6
CY	:	:	:	:	:
LV	137.3	:	:	:	:
LT	168.8	:	:	:	:
LU	110.0	:	:	:	:
HU	180.5	:	:	:	:
MT	0.0	:	:	:	:
NL	21.4	113.9	226.9	87.0	161.1
AT	100.0	145.8	99.5	83.3	70.1
PL	99.0	:	:	:	:
PT	16.8	54.4	62.3	75.8	91.7
RO	105.8	:	:	:	:
SI	57.6	:	:	:	:
SK	:	:	:	:	:
FI	116.5	88.1	115.3	27.3	102.3
SE	116.9	66.7	89.7	42.4	84.8
UK	105.6	66.0	51.5	86.7	85.3

(1) Excluding rice; Belgium, Bulgaria and the United Kingdom, 2005; the Czech Republic and Spain, 2004; Slovenia and Finland, 2003.
(2) Finland, 2005; Spain, 2004; the Netherlands and Sweden, 2003.

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR6).

Table 1.6: Extra-EU-27 imports of food and feed products, 2007

	Total imports (1 000 tonnes)	1st partner	(%)	2nd partner	(%)	3rd partner	(%)
Meat & meat products	1 572	Brazil	54.1	N. Zealand	14.4	Thailand	10.5
Dairy prod. & birds' eggs	329	Switzerland	37.3	N. Zealand	33.4	USA	10.6
Fish, crust., molluscs	3 484	Norway	18.9	Thailand	6.2	Ecuador	4.9
Cereals & cereal prep.	22 367	Brazil	32.1	USA	19.5	Argentina	14.5
Veg., fresh, chilled, frozen	5 316	Thailand	23.6	Morocco	11.2	Israel	8.7
Veg., roots, tubers & preserved	1 130	China	40.0	Turkey	18.9	Morocco	5.2
Fruit & nuts	10 309	Costa Rica	16.0	Ecuador	12.4	Colombia	11.5
Fruit, preserved & preparations	1 626	Thailand	16.0	China	15.8	Turkey	9.7
Fruit & veg. juices	1 779	Brazil	40.2	China	13.5	Switzerland	7.7
Sugars, sugar prep. & honey	5 811	India	16.5	Brazil	13.8	Mauritius	7.9
Coffee, tea, cocoa	5 432	Brazil	15.4	Ivory Coast	13.7	Vietnam	11.9
Feedingstuffs	32 357	Argentina	50.5	Brazil	28.8	USA	5.5

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_IMP2, FOOD_IN_IMP3, FOOD_IN_IMP4, FOOD_IN_IMP5, FOOD_IN_IMP61, FOOD_IN_IMP62, FOOD_IN_IMP71, FOOD_IN_IMP72, FOOD_IN_IMP73, FOOD_IN_IMP8, FOOD_IN_IMP9 and FOOD_IN_IMP10).

2

Farm production stage

Context

The Common Agricultural Policy (CAP) was originally based on objectives laid out in Article 39 of the 1957 Treaty of Rome. The five main points were:

(a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;
(b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
(c) to stabilise markets;
(d) to assure the availability of supplies;
(e) to ensure that supplies reach consumers at reasonable prices.

In this way, from its inception, the CAP has had an important bearing on many stages in the food chain from the farm to the fork. Key policy tools used to pursue the CAP objectives have included direct subsidies, export refunds and import tariffs, which have an important influence on supplies and prices. These tools underpinned the major principles guiding the CAP: market unity, Community preference and financial solidarity.

Over the years, there have been a number of reforms of the CAP, influenced by burgeoning stocks (such as wine lakes and butter mountains), rising expenditure, international trade reforms, food safety concerns (particularly after various animal health scares) and environmental concerns.

Among the various reforms, arguably two of the most significant were the CAP reforms of 1992 and 2003. The so-called MacSharry reforms of 1992 set limits on production, withdrew land from production under set-aside arrangements and began the process of freeing agricultural markets, which were historically set by the Uruguay round of the General Agreement on Tariffs and Trade (GATT). The 2003 reform of the CAP was based on decoupling subsidies from particular crops and replacing them with single farm payments that are subject to cross-compliance conditions relating to environmental, food safety and animal welfare standards (many of these were already either good practice recommendations or separate legal requirements regulating farm activities). The fundamental reform of the CAP in 2003 was also aimed at encouraging farmers to take a more entrepreneurial view of their farming (and non-farming) activities, encouraging them to look at their businesses in relation to market needs.

Rural development has become a key tool for restructuring the agricultural sector, encouraging diversification and innovation in rural areas. In all Member States, rural development is seen as promoting competitiveness in the agricultural and food processing sectors. Local initiatives such as Leader (one of four Community initiatives financed by EU structural funds to help rural actors improve the long-term potential of their local region) can play an important role in encouraging innovation and entrepreneurship, promoting new ways of selling/dealing with risk in competitive markets, improving management processes in the agri-food chain, and applying the benefits of research and development and information and communication technologies (ICT) on the farm.

The environment and associated tourism are a major source of income and employment potential in rural areas. As agriculture and forestry remain by far the largest land users shaping the rural environment and landscape, the provision of environmental goods, particularly through agri-environmental measures, can form the basis for growth and jobs. One area where policy makers try to encourage activity is in relation to the scope for innovative approaches that add value to the rural economy by remunerating farmers for environmental services and linking these to diversification into tourism, crafts and training, thus promoting sustainable development.

This chapter provides an overview of the start of the food chain, namely, farm activity. It looks at the changing structure of agriculture across the EU in terms of the number of farms, their size and workforces. It also covers developments regarding farming inputs, such as the use of seeds and fertilisers, or the provision of feedstuffs for livestock. It continues with information on the output of the agricultural sector, as measured by harvested production or the number of animals that are reared for slaughter, milk production or eggs levels, followed by information on price developments, and agri-environmental indicators.

Structural overview

There were 7.8 million commercial holdings in the EU-27 in 2005 and a further 6.7 million small holdings. Almost 60 % of all commercial agricultural holdings (being of at least 1 economic size unit – ESU – and thereby excluding subsistence farming) in the EU-27 were located in Italy (17.7 %), Romania (15.8 %), Poland (13.8 %) and Spain (12.3 %).

Table 2.1: Number of agricultural holdings (1)
(units)

	1993	1995	1997	2000	2003	2005
EU-27	:	:	:	:	15 021 410	14 482 010
BE	76 330	70 980	67 180	61 710	54 940	51 540
BG	:	:	:	:	665 550	534 610
CZ	:	:	:	:	45 770	42 250
DK	73 780	68 770	63 150	57 830	48 610	51 680
DE	:	:	:	471 960	412 300	389 880
EE	:	:	:	:	36 860	27 750
IE	159 370	153 420	147 830	141 530	135 620	132 670
EL	819 150	802 410	821 390	817 060	824 460	833 590
ES	1 383 910	1 277 600	1 208 260	1 287 420	1 140 730	1 079 420
FR	:	:	:	:	614 000	567 140
IT	2 488 390	2 482 100	2 315 230	2 153 720	1 963 820	1 728 530
CY	:	:	:	:	45 200	45 170
LV	:	:	:	140 840	126 610	128 670
LT	:	:	:	:	272 110	252 950
LU	3 400	3 180	2 980	2 810	2 450	2 450
HU	:	:	:	966 920	773 380	714 790
MT	:	:	:	:	10 990	11 070
NL	119 720	113 200	107 920	101 550	85 500	81 830
AT	:	221 750	210 110	199 470	173 770	170 640
PL	:	:	:	:	2 172 210	2 476 470
PT	489 030	450 640	416 690	415 970	359 280	323 920
RO	:	:	:	:	4 484 890	4 256 150
SI	:	:	:	86 470	77 150	77 170
SK	:	:	:	71 040	71 740	68 490
FI	:	100 950	91 440	81 190	74 950	70 620
SE	:	88 830	89 580	81 410	67 890	75 810
UK (2)	243 470	234 500	233 150	233 250	280 630	286 750

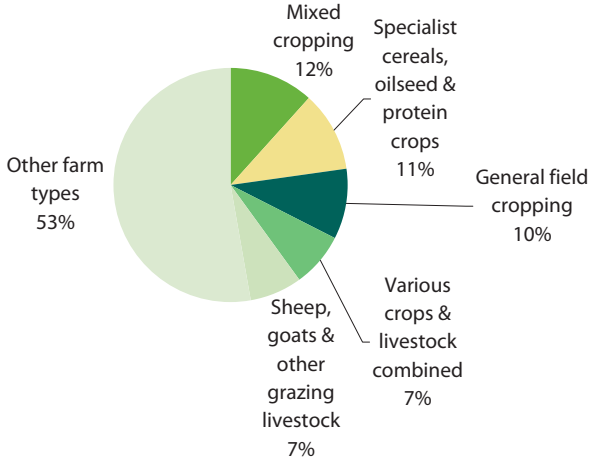
(1) About 6.7 million holdings in the EU-27 were smaller than 1 ESU in 2005, of which about 3.0 million were in Romania.
(2) The rise in agricultural holdings in the United Kingdom between 2000 and 2003 is almost entirely accounted for by holdings that were smaller than 1 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_KVAAESU)

Among most Member States there was a steady decline in the number of agricultural holdings during the period 1993 to 2005 (see Table 2.1). The numbers of agricultural holdings in Portugal, Belgium and the Netherlands in 2005 were about one third less than the numbers in 1993, while there were also declines of between 20 % and 30 % in Denmark, Spain, Italy and Luxembourg during the period considered.

There is a great variety in the types of farming that are practised across agricultural holdings in the EU; to a large degree this may be explained by their geographic distribution, or more precisely the agro-climatic conditions they face. Just over one in ten (11.6 %) of all agricultural holdings in the EU-27 could be described as a mixed cropping farms (see Figure 2.1), although this proportion was much higher in Slovakia, Lithuania, Malta, Portugal, Romania and Slovenia. Specialist cropping and general field cropping each accounted for around 10 % of all agricultural holdings, while mixed cropping and livestock farms and farms specialised in rearing sheep and goats and other grazing livestock both accounted for 7 % of the EU-27's farms in 2005. Outside of these five most frequently occurring types of farming, 6.0 % of agricultural holdings in the EU-27 were specialised in olive growing (mainly found around the Mediterranean), while a further 5.0 % were specialised in fruit and citrus fruit production (principally in Cyprus and Spain).

Figure 2.1: Agricultural holdings by main type of farming, EU-27, 2005
(% of total)



Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_KVFTAA)

Table 2.2: Utilised agricultural area (UAA), 2005 (1)

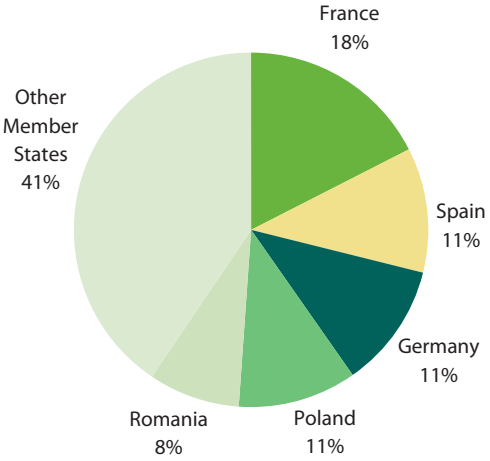
	Utilised agricultural area (1 000 hectares)				Average UAA per holding (hectares)
	Total	Arable land	Permanent pasture	Permanent crops	
EU-27	171 996	104 717	55 984	10 872	11.9
BE	1 386	845	519	21	26.9
BG	2 729	2 523	107	81	5.1
CZ	3 558	2 640	875	40	84.2
DK	2 708	2 501	198	9	52.4
DE	17 035	11 903	4 929	198	43.7
EE	829	584	237	3	29.9
IE	4 219	1 152	3 065	2	31.8
EL	3 984	2 058	824	1 088	4.8
ES	24 855	11 937	8 653	4 260	23.0
FR	27 591	18 339	8 131	1 106	48.6
IT	12 708	7 040	3 347	2 286	7.4
CY	152	110	0	41	3.4
LV	1 702	1 076	599	25	13.2
LT	2 792	1 873	891	28	11.0
LU	129	60	68	2	52.7
HU	4 267	3 607	469	167	6.0
MT	10	8	0	1	0.9
NL	1 958	1 117	809	32	23.9
AT	3 266	1 405	1 788	68	19.1
PL	14 755	11 308	3 020	330	6.0
PT	3 680	1 241	1 769	649	11.4
RO	13 907	8 867	4 530	339	3.3
SI	485	174	282	27	6.3
SK	1 879	1 319	530	26	27.4
FI	2 264	2 233	26	5	32.1
SE	3 192	2 681	509	4	42.1
UK	15 957	6 114	9 809	34	55.6

(1) Holdings of less than 1 ESU accounted for 10.3 million hectares of utilised agricultural area in the EU-27, raising the UAA per commercial holding to an average 20.7 hectares.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LUFT and EF_OV_KVAAESU)

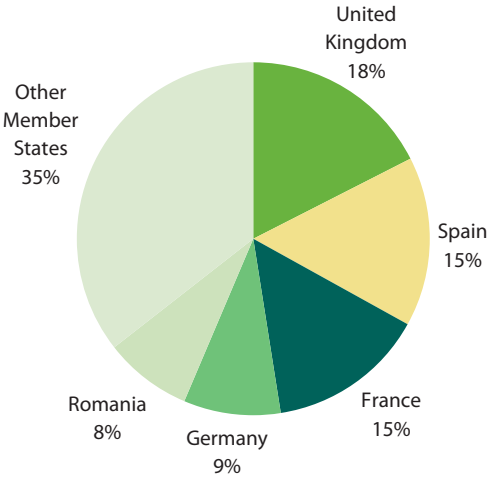
The majority (60.9 %) of the utilised agricultural area in the EU-27 was devoted to arable land in 2005 (see Table 2.2). This proportion rose to over 90 % in Bulgaria, Denmark and Finland. In contrast, closer to two thirds or more of the utilised agricultural area in Ireland and the United Kingdom was permanent pasture. Permanent crops (such as citrus and olive plantations and vineyards) accounted for a relatively high proportion of the utilised agricultural area in most Mediterranean countries, but particularly Greece and Cyprus, where they accounted for slightly more than a quarter of the land utilised for agricultural production.

Figure 2.2a: Arable area, 2005
(% of EU-27 total)



Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LUFT)

Figure 2.2b: Permanent pasture, 2005
(% of EU-27 total)



Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LUFT)

Table 2.3: Number of agricultural holdings by utilised agricultural area, 2005
(1 000)

	Size class of holding in hectares						
	Total	<2	2<5	5<20	20<50	50<100	>=100
EU-27	14 482	7 284	3 065	2 615	826	399	293
BE	52	8	6	15	14	7	2
BG	535	471	40	15	3	2	4
CZ	42	15	7	9	4	2	4
DK	52	1	1	20	13	9	8
DE	390	27	61	129	88	54	30
EE	28	5	8	10	3	1	1
IE	133	2	7	49	51	20	4
EL	834	413	223	162	28	6	1
ES	1 079	313	264	291	111	50	50
FR	567	80	67	110	109	113	87
IT	1 729	854	417	337	82	26	13
CY	45	31	8	5	1	0	0
LV	129	30	31	53	11	3	2
LT	253	27	103	102	15	3	2
LU	2	0	0	0	0	1	0
HU	715	584	57	48	14	6	6
MT	11	10	1	0	0	0	0
NL	82	12	12	25	23	9	2
AT	171	19	36	71	34	8	3
PL	2 476	1 218	533	608	97	13	7
PT	324	158	84	58	13	5	6
RO	4 256	2 857	1 014	355	16	5	9
SI	77	18	28	29	2	0	0
SK	68	56	6	3	1	1	2
FI	71	2	4	25	26	11	3
SE	76	1	10	28	18	11	8
UK	287	73	34	59	47	36	39

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_KVAAESU)

Nearly three quarters (71.5 %) of the agricultural holdings in the EU-27 in 2005 were less than 5 hectares in size (see Table 2.3). However, in the period between 1990 and 2005, the average size of an agricultural holding tended to increase (see Table 2.4). There were considerable variations in the average size of commercial agricultural holdings across the Member States: the average farm size in Italy, Romania, Slovenia, Greece, Cyprus and Malta was less than 10 hectares, while in the Czech Republic and Slovakia it was well over 100 hectares.

Table 2.4: Average utilised agricultural area per agricultural holding
(hectares)

	All holdings				All commercial holdings (1)			
	1990	1995	2000	2005	1990	1995	2000	2005 (2)
EU-27	:	:	:	11.9	:	:	:	20.4
BE	15.8	19.1	22.6	26.9	17.3	20.1	23.7	27.9
BG	:	:	:	5.1	:	:	:	21.1
CZ	:	:	:	84.2	:	:	:	131.7
DK	34.2	39.6	45.7	52.4	34.2	39.6	45.8	52.7
DE	:	:	36.3	43.7	:	:	37.6	45.7
EE	:	:	:	29.9	:	:	:	57.0
IE	26.0	28.2	31.4	31.8	29.1	29.8	32.9	33.2
EL	4.3	4.5	4.4	4.8	5.5	5.4	5.3	5.8
ES	15.4	19.7	20.3	23.0	21.6	22.3	21.7	24.8
FR	:	:	:	48.6	:	:	:	52.1
IT	5.6	5.9	6.1	7.4	7.9	8.5	8.2	9.0
CY	:	:	:	3.4	:	:	:	4.8
LV	:	:	10.2	13.2	:	:	20.5	29.0
LT	:	:	:	11.0	:	:	:	18.2
LU	32.0	39.9	45.4	52.7	34.4	42.5	48.4	54.5
HU	:	:	4.7	6.0	:	:	22.7	25.8
MT	:	:	:	0.9	:	:	:	1.1
NL	16.1	17.7	20.0	23.9	16.1	17.7	20.0	23.5
AT	:	15.4	17.0	19.1	:	15.3	17.1	19.6
PL	:	:	:	6.0	:	:	:	12.1
PT	6.7	8.7	9.3	11.4	8.3	11.0	11.9	16.0
RO	:	:	:	3.3	:	:	:	8.4
SI	:	:	5.6	6.3	:	:	6.8	7.4
SK	:	:	30.4	27.4	:	:	171.4	143.0
FI	:	21.7	27.3	32.1	:	22.1	28.3	32.3
SE	:	34.4	37.7	42.1	:	36.7	40.5	46.7
UK	67.9	70.1	67.7	55.6	78.6	78.4	84.6	81.6

(1) Commercial holdings exclude the very smallest (subsistence) holdings of less than 1 ESU.
(2) The Netherlands, 2003.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_KVAAESU)

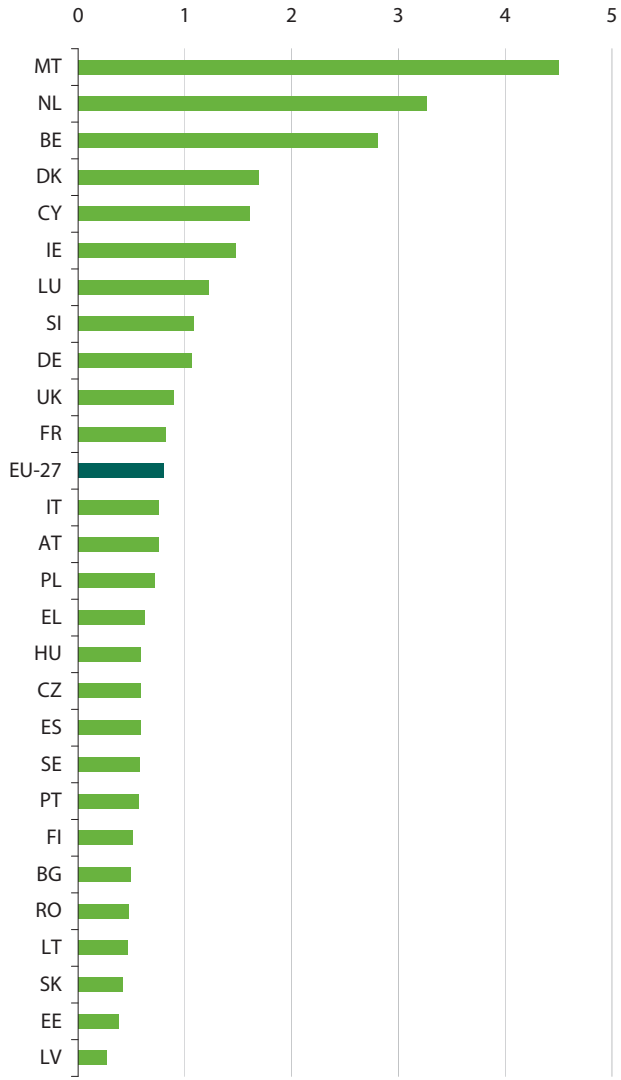
Of the 9.0 million agricultural holdings in the EU-27 that had livestock in 2005 (see Table 2.5), three quarters (75.2 %) were agricultural holdings with less than 5 livestock units (LSU). Slightly more than half (53.9 %) of all agricultural holdings with more than 100 LSU were located in France, Germany and the United Kingdom, although livestock density in these three countries was only slightly above the EU-27 average (see Figure 2.3), and considerably less than in Malta, the Netherlands and Belgium. The lowest livestock densities were recorded in the Baltic Member States and Slovakia.

Table 2.5: Number of agricultural holdings by livestock units, 2005 (1 000)

	Size class of holding in livestock units (LSU)						
	Total	0	0<5	5<20	20<50	50<100	>=100
EU-27	14 482	5 491	6 758	1 156	506	288	283
BE	52	13	5	7	6	8	12
BG	535	57	445	28	3	1	1
CZ	42	11	20	6	2	1	2
DK	52	20	7	7	4	3	10
DE	390	109	58	70	61	46	47
EE	28	10	14	3	1	0	0
IE	133	4	11	35	43	25	14
EL	834	430	321	48	26	6	2
ES	1 079	756	154	65	50	26	28
FR	567	198	102	59	66	77	64
IT	1 729	1 432	161	63	38	19	16
CY	45	33	9	1	1	0	0
LV	129	45	69	11	2	0	0
LT	253	29	160	59	3	1	0
LU	2	0	0	0	0	1	1
HU	715	218	461	29	4	1	2
MT	11	8	2	0	0	0	0
NL	82	26	7	11	8	12	19
AT	171	49	39	45	27	7	3
PL	2 476	938	1 105	332	82	13	7
PT	324	91	194	23	9	4	3
RO	4 256	812	3 257	172	12	2	1
SI	77	10	42	20	4	1	0
SK	68	11	54	1	0	0	1
FI	71	41	4	8	12	4	2
SE	76	34	12	12	8	5	4
UK	287	104	43	41	32	25	42

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_KVAAESU and EF_LS_OVLSUREG)

Figure 2.3: Livestock density index, 2005
(LSU per hectare of UAA)



Source: Eurostat (Survey on the structure of agricultural holdings, EF_LS_OVAAREG and EF_OV_LUFT)

Agriculture remains very much a family-oriented activity in the majority of Member States: of the 17.9 million persons working regularly on commercial agricultural holdings across the EU-27 in 2005, around 90 % were farm holders or members of their families (see Table 2.6). The main exceptions were in Slovakia and the Czech Republic, where different ownership structures led to the family labour force representing between just 15 % and 20 % of the total labour force. Most regular non-family workers on agricultural holdings tended to work on a full-time basis, in contrast to many family members who only worked part-time (see Table 2.7).

Table 2.6: EU agricultural farm labour force, 2005 (1)

Family labour force 16.1 million persons of which, 42 % women AWUs: 7.4 million			**Non-family labour force AWUs: 2.3 million**	
Holders	**Spouses of the holders**	**Other family members**	**Regular non-family labour**	**Non-regular labour force**
7.6 million persons	4.2 million persons	4.3 million persons	1.8 million persons	
of which, 23% women	of which, 80% women	of which, 36% women	of which, 28% women	
AWUs: 4.2 million	AWUs: 1.9 million	AWUs: 1.4 million	AWUs: 1.5 million	AWUs: 0.9 million

(1) Excluding subsistence labour on holdings of less than 1 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LFFT)

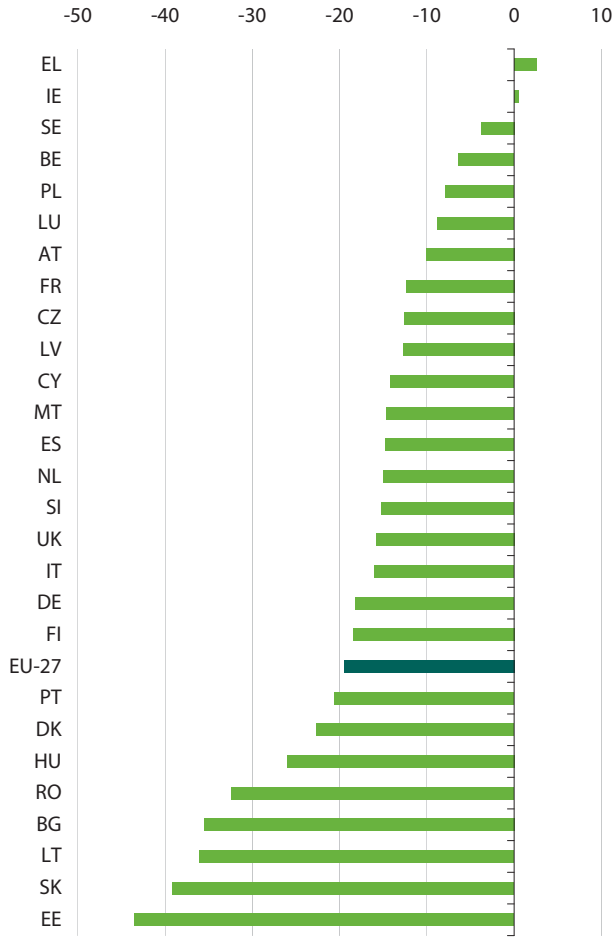
Table 2.7: Farm labour force, 2005

	Total farm labour force (1 000 AWU)	Subsistence labour (1) (1 000 AWU)	Family labour (2) (1 000 persons)	Family labour (2) (1 000 AWU)	Non-family labour: Regular (2) (1 000 persons)	Non-family labour: Regular (2) (1 000 AWU)	Non-family labour: Non-regular (2) (1 000 AWU)
EU-27	12 716	2 929	16 136	7 447	1 834	1 459	881
BE	70	1	79	55	14	11	3
BG	625	378	260	168	56	53	26
CZ	152	10	43	28	116	104	10
DK	60	0	73	38	24	20	2
DE	643	9	772	441	168	141	52
EE	37	9	34	15	14	12	1
IE	152	4	226	137	14	7	4
EL	601	24	1 272	470	25	18	88
ES	993	43	1 796	609	195	156	184
FR	855	11	667	413	424	339	92
IT	1 374	102	2 597	1 026	150	105	141
CY	29	3	54	18	5	5	3
LV	137	55	99	66	18	14	2
LT	222	69	286	125	26	22	5
LU	4	0	5	3	1	1	0
HU	463	232	323	139	94	83	9
MT	4	0	14	4	1	0	0
NL	174	0	160	110	77	51	13
AT	166	14	354	138	17	10	4
PL	2 274	547	2 671	1 608	64	58	61
PT	398	81	535	251	48	40	26
RO	2 596	1 241	3 000	1 180	71	53	121
SI	95	12	168	75	4	3	4
SK	99	32	27	10	60	53	3
FI	83	0	139	70	14	8	5
SE	71	4	118	49	21	14	3
UK	339	47	362	197	116	77	19

(1) Labour on holdings of less than 1 ESU.
(2) Excluding subsistence labour.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LFFT)

Figure 2.4: Overall change in the farm labour force, 2000-2007 (%, based on AWUs)



Source: Eurostat (Agricultural labour input statistics, AACT_ALI02)

There was a sharp decline in the volume of agricultural labour used in most of the Member States during the period from 2000 to 2007 (see Figure 2.4). Across the EU-27 the labour force shrank by 19.5 % during the period considered. The most rapid declines (between 32 % and 44 %) were registered in Romania, Bulgaria, Lithuania, Slovakia and Estonia, in large part reflecting structural adjustments during the period after land restitution and the relative pull from other sectors of the economy offering alternative employment opportunities. The relatively stable levels

Table 2.8: Commercial farm labour force, selected farm typologies, 2005 (1)
(% of all holdings)

	Mixed crops	Dairy	Field crops	Mixed crop & live-stock	Cereal	Mixed live-stock	Horti-culture	Other
EU-27	10.6	9.7	8.9	8.7	7.7	7.4	5.5	41.4
BE	3.1	15.3	9.2	9.3	2.0	2.0	16.5	42.6
BG	8.6	9.7	22.1	7.1	17.4	5.7	6.0	23.4
CZ	15.9	5.3	10.0	28.9	8.6	5.4	2.8	23.0
DK	2.6	18.2	15.3	4.8	21.7	0.6	8.0	28.7
DE	3.9	24.0	10.9	11.2	9.7	2.2	6.8	31.4
EE	8.0	27.3	9.2	19.1	10.2	9.1	2.7	14.4
IE	0.2	22.2	2.0	2.7	1.8	0.1	0.6	70.3
EL	12.6	0.9	18.0	3.3	3.9	3.4	4.5	53.4
ES	7.9	5.7	5.6	2.5	7.8	2.3	11.5	56.6
FR	4.4	12.9	7.5	8.1	11.0	2.0	6.3	47.8
IT	10.9	5.8	10.4	2.9	9.2	1.6	4.7	54.7
CY	12.1	2.6	8.2	0.9	2.0	0.9	10.5	62.7
LV	9.7	22.6	8.9	23.0	6.1	17.3	1.4	11.0
LT	16.4	13.0	6.2	17.2	7.4	23.5	2.6	13.7
LU	0.8	33.9	0.5	6.8	3.8	2.3	3.5	48.4
HU	13.1	6.1	9.2	7.5	20.2	4.2	5.9	33.8
MT	28.9	5.4	3.6	0.0	0.0	2.1	23.5	36.4
NL	2.3	22.6	9.0	2.0	0.6	0.4	32.7	30.4
AT	2.9	31.0	5.4	3.7	7.8	1.4	1.4	46.4
PL	12.3	6.4	7.9	13.5	4.0	10.5	3.4	41.9
PT	20.2	6.5	7.5	4.6	1.7	6.0	6.1	47.3
RO	19.5	5.1	5.6	13.3	5.9	23.8	1.5	25.3
SI	14.2	20.8	2.2	5.5	1.9	16.3	1.3	37.8
SK	8.9	9.5	9.1	36.3	15.1	3.9	0.6	16.5
FI	2.1	35.4	11.7	7.4	19.7	0.4	8.6	14.7
SE	2.1	24.4	23.3	10.7	15.5	0.6	5.2	18.3
UK	1.9	15.8	9.6	6.0	13.1	0.3	7.6	45.7

(1) Excluding labour on holdings of less than 1 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, EF_OV_LFFT)

of agricultural labour witnessed in Greece, Ireland and Sweden should, nevertheless, be seen against the backdrop of substantial reductions during the decade to 2000, as the volume of agricultural labour almost halved in Ireland and was reduced by about a third in Sweden and a quarter in Greece between 1990 and 2000.

Across the EU-27, more people worked on mixed crop farms than on any other farm type (see Table 2.8). In 11 of the Member States, however, the largest proportion of the agricultural workforce worked on dairy farms.

Organic farming is carried out by a relatively small proportion of agricultural holdings; the 158 000 holdings across the EU-25 that were organic in 2005 represented less than 2 % of the total (see Table 2.9). Against a background of general decline in the number of agricultural holdings, the number of organic holdings increased in several Member States, most notably Austria, France, Germany and Greece. In Italy, where there was a notable decline in the number of organic holdings, the organic crop area increased.

Table 2.9: Organic farming

	Producers (1)			Organic crop area (2)			
	(1 000)		(% of all holdings)	(1 000 hectares)		(% of total UAA)	Average organic area/ holding (hectares)
	2000	2005	2005	2000	2005	2005	2005
EU-25	:	*157.77*	1.6	:	*6 165.3*	4.0	*39.1*
BE	0.62	0.72	1.4	20.7	23.0	1.7	31.9
BG	:	:	:	:	4.7	0.2	:
CZ	:	0.84	2.0	:	255.0	7.2	305.4
DK	3.47	3.04	5.9	157.7	134.1	5.0	44.2
DE	12.74	17.02	4.4	546.0	807.4	4.7	47.4
EE	:	1.01	3.7	:	59.7	7.2	59.0
IE	0.85	0.96	0.7	27.2	34.9	0.8	36.5
EL	5.34	15.67	1.9	26.7	288.7	7.2	18.4
ES	13.39	15.26	1.4	380.9	807.6	3.2	52.9
FR	8.99	11.40	2.0	369.9	550.5	2.0	48.3
IT	52.80	44.86	2.6	1 040.4	1 069.5	8.4	23.8
CY	:	0.16	*0.4*	:	1.7	1.1	5.5
LV	:	2.87	2.2	:	118.6	7.0	41.3
LT	:	1.80	*0.7*	:	64.5	2.3	35.8
LU	0.03	0.07	3.0	1.1	3.2	2.4	42.7
HU	:	1.73	*0.2*	:	128.6	3.0	76.8
MT	:	0.01	0.1	:	0.0	0.1	2.3
NL	1.13	1.38	1.7	32.3	48.8	2.5	35.4
AT	18.39	20.32	11.9	275.8	360.4	11.0	17.7
PL	:	3.76	*0.2*	:	82.7	0.6	22.0
PT	0.75	1.58	0.5	48.1	233.5	6.3	148.0
RO	:	:	:	:	107.6	0.8	:
SI	:	1.72	2.2	:	23.5	4.8	13.6
SK	:	0.20	0.3	:	90.2	4.8	462.6
FI	5.23	4.63	6.6	147.3	147.6	6.5	31.9
SE	3.63	2.53	3.3	174.2	222.7	7.0	88.0
UK	3.56	4.24	1.5	578.8	609.0	3.8	143.7

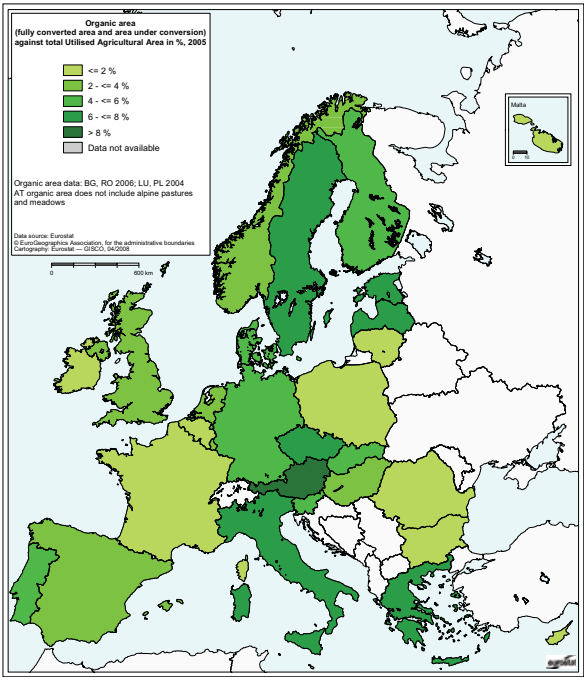
(1) Cyprus, Hungary and Poland, 2004; Lithuania, Eurostat estimate for 2005 taken from Statistics in Focus 69/2007)
(2) Fully converted and under conversion. Bulgaria and Romania, 2006; Luxembourg and Poland, 2004.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT2 and FOOD_IN_PORG1 and Survey on the structure of agricultural holdings, EF_OV_KVAAESU)

Organic farming area in the EU-25 represented around 4 % of utilised agricultural area in 2005, although this proportion rose to 7.2 % in Estonia and the Czech Republic among the Member States that joined the EU in 2004, 8.4 % in Italy and 11.0 % in Austria. A little less than one fifth of the total organic area of the EU-25 was found in Italy in 2005, while the highest share among those countries that joined the EU in 2004 was in the Czech Republic (4 %).

The average size of organic agricultural holdings (an estimated 39.1 hectares for the EU-25) in 2005 tended to be higher than the average size for all commercial agricultural holdings (20.7 hectares for the EU-27), perhaps reflecting the more extensive nature of organic farming. This contrast was particularly clear in Portugal, where the average size of an organic holding was 148.0 hectares compared with an average 16.0 hectares for all agricultural holdings. The largest organic holdings were, on average, in the Czech Republic and Slovakia – the same two countries with the largest average size for all agricultural holdings.

Map 2.1: Organic area (fully converted area and area under conversion) against total Utilised Agricultural Area in %, 2005



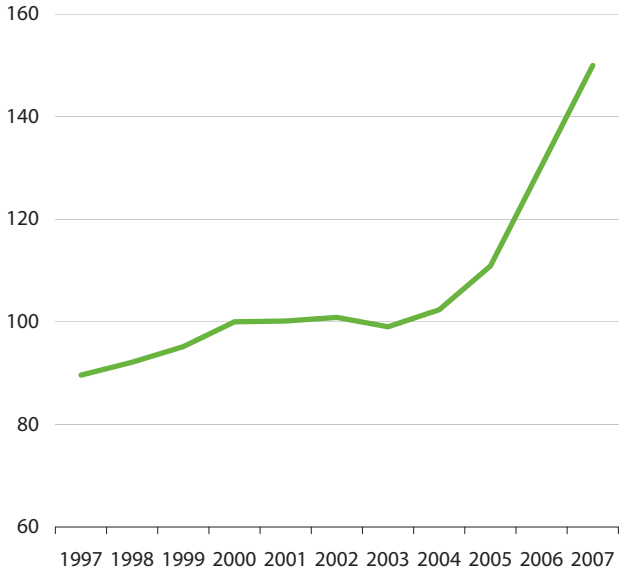
Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PORG1 and Survey on the structure of agricultural holdings, EF_OV_KVAAESU)

Inputs used in agriculture

As well as fixed assets such as land, labour and capital, agricultural production also requires variable or intermediate inputs (consumption goods and services). The volume of intermediate consumption goods and services used in agriculture can reflect price developments, environmental considerations, technological progress, or changes in production structure.

Animal feed is usually either forage or commercial compound feed. The ingredients in the compound feed vary, but in recent years there have been significant developments. Following animal health scares, the use of animal and bone meal in animal feed was banned in January 2001 and there has also been a withdrawal of some feed additives for toxicological precautions. Growth in the volume of animal feedingstuffs consumed in the EU-15 accelerated sharply during the period between 2005 and 2007 (see Figure 2.5).

Figure 2.5: Consumption of feedingstuffs, EU-15 (2000=100)



Source: Eurostat (Economic accounts for agriculture, AACT_EAA04)

Table 2.10: Consumption of seeds, 2006
(1 000 tonnes)

	Cereals (1)						
	Total	*of which*: own-produced (%)	Wheat	Grain maize	Rice (2)	Dried pulses (3)	Potatoes (4)
BE	43	4.3	36	1	0	0	71
BG	359	99.7	280	8	1	2	72
CZ	338	47.5	185	13	0	12	115
DK	273	0.0	124	0	0	3	100
DE	1 089	43.3	561	57	0	41	704
EE	66	:	23	0	0	1	36
IE	49	10.2	18	2	0	:	37
EL	175	52.6	140	5	3	2	89
ES	:	:	:	:	:	:	:
FR	1 116	:	744	90	2	98	320
IT	529	7.9	399	28	34	29	190
CY	:	:	:	:	:	:	:
LV	113	59.0	48	0	0	1	164
LT	187	97.4	71	2	0	11	189
LU	7	9.4	3	1	:	0	2
HU	451	23.6	272	39	0	2	60
MT	0	:	0	0	:	0	0
NL	100	6.0	82	12	:	1	:
AT	115	0.0	52	8	0	7	53
PL	1 756	90.0	564	49	0	21	1 480
PT	40	:	19	4	:	1	60
RO	927	70.5	696	65	1	12	862
SI	:	:	:	:	:	:	:
SK	191	0.0	103	21	0	4	35
FI	283	100.0	61	0	:	1	59
SE	175	32.6	75	0	0	7	78
UK	416	56.3	254	0	:	:	387

(1) Belgium, Bulgaria, the Czech Republic and Finland, 2005.
(2) The Czech Republic, 2005.
(3) The Czech Republic and Finland, 2005.
(4) Finland, 2005.

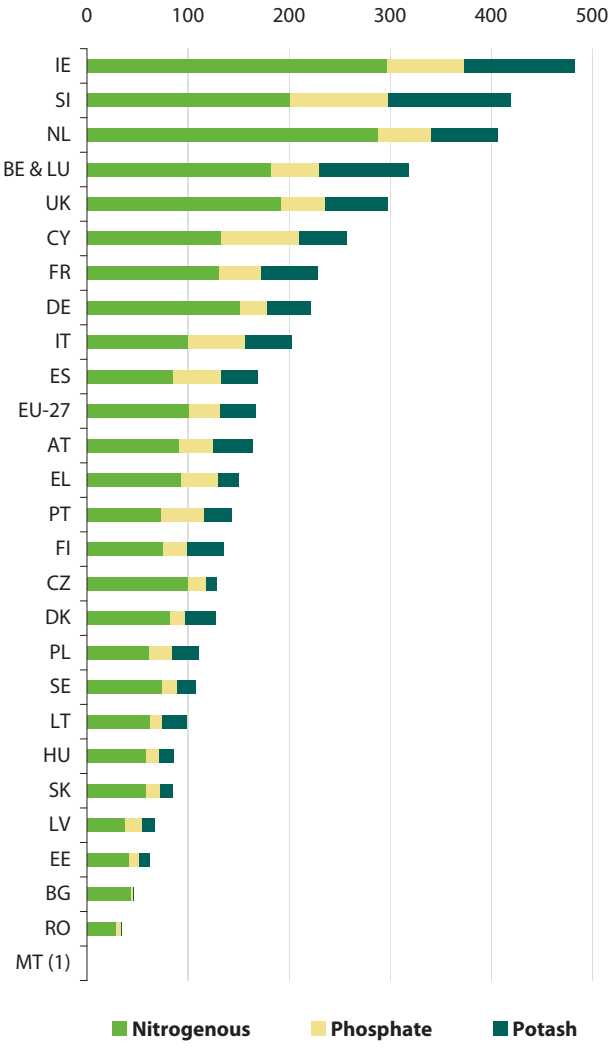
Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_ASEED1 and FOOD_IN_ASEED2)

Fertilisers are used by farmers to provide plants with the nutrients that they require for growth. Fertilisers can be organic in nature (comprising organic matter) but are mainly inorganic, mineral compounds. The intensity of fertiliser use has implications not only for production but also for the environment (such as through the leaching of nitrates and phosphates into water). The majority of fertilisers used in the EU-27 are nitrogenous, with phosphatic fertilisers and potash used in broadly equal measure (see Figure 2.6). The application rate of fertilisers per hectare of arable land was highest in the Benelux countries, Slovenia and Ireland in 2001 and lowest in some of the Baltic Member States, Bulgaria and Romania.

Plant protection products collectively represent products that prevent, control or limit damage to plant yields from disease (fungal or other), pests and competing weeds; some crops are more susceptible to infection and attack than others. The intensity of plant protection product consumption among the EU-27 Member States was highest in Portugal (predominantly in the use of fungicide products) and the Benelux countries (fungicides and herbicides used in almost equal measure) and lowest in the Baltic Member States in 2003 (see Figure 2.7). High application intensity does not necessarily mean a threat to the environment, but does suggest that attention should be given to soil and water pollution levels and the impact of plant protection products on insects and invertebrates.

Spending on fertilisers, soil improvers and plant protection products is not only a function of the quantities used but also price, which can vary significantly according to the price of energy. Removing these price fluctuations, the average spend on fertilisers and soil improvers per hectare of utilised agricultural area was highest in Belgium in 2005, followed by the Netherlands and Malta (see Table 2.11), in part reflecting the importance of horticulture and permanent crops, as well as generally intensive farming systems. The Netherlands and Belgium also spent by far the most on plant protection products per hectare of arable land between 1995 and 2005.

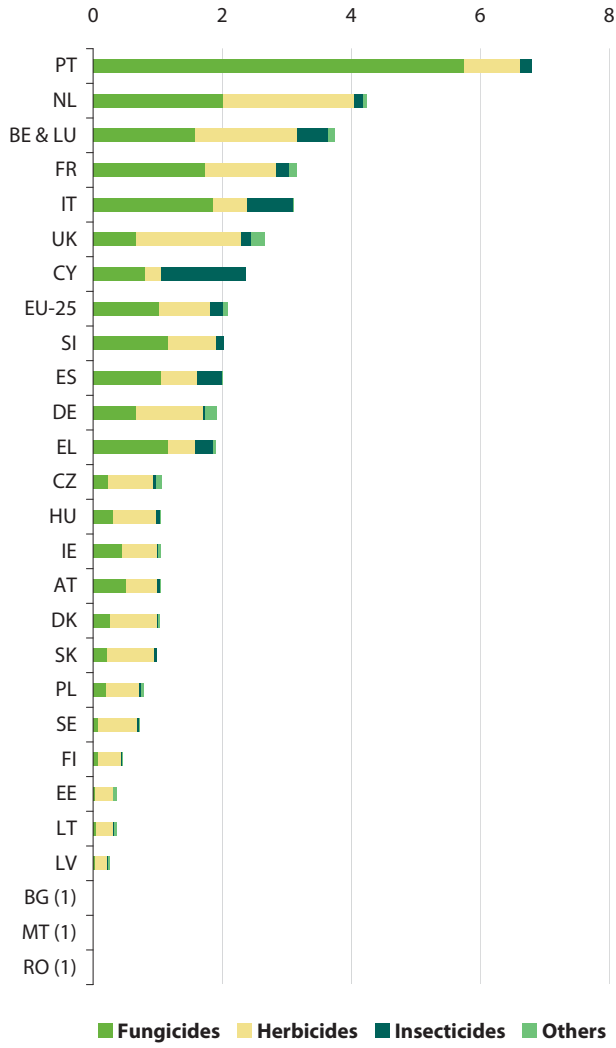
Figure 2.6: Fertiliser consumption, 2001
(kg of active ingredient per hectare of arable land)



(1) Not available.

Source: Eurostat (Agriculture and environment statistics, ENV_AG_FERT and Agricultural products statistics, APRO_CPP_LUSE)

Figure 2.7: Consumption of plant protection products, 2003 (kg of active ingredient per hectare of utilised agricultural area)



(1) Not available.

Source: Eurostat (Plant protection products publication, 2007)

Table 2.11: Spending on fertilisers and plant protection products (1)

	Fertilisers and soil improvers (EUR / hectare of UAA)			Plant protection products (EUR / hectare of arable land)		
	1995	2000	2005	1995	2000 (2)	2005 (3)
EU-27	:	*59.4*	:	:	*76.0*	:
BE	159.2	164.4	155.7	210.7	223.3	224.0
BG	:	40.0	21.7	:	:	:
CZ	:	26.5	24.8	:	32.0	48.7
DK	92.5	74.1	60.4	82.7	62.4	71.7
DE	90.2	102.8	73.0	98.1	113.8	133.9
EE	8.7	8.0	13.1	2.9	3.3	10.3
IE	95.9	85.4	64.3	40.5	43.2	45.3
EL	49.4	64.7	48.0	101.4	76.2	73.1
ES	37.8	45.1	36.3	44.8	65.7	50.5
FR	96.9	92.4	84.5	141.4	153.7	138.3
IT	68.3	57.4	66.4	101.2	81.0	78.6
CY	:	:	:	:	:	:
LV	:	8.0	23.1	:	5.4	21.8
LT	12.3	24.4	35.2	24.2	12.5	37.3
LU	87.2	72.9	66.1	57.8	71.0	95.0
HU	:	36.0	36.6	:	36.9	41.7
MT	:	117.1	123.2	:	101.6	103.9
NL	165.7	132.5	129.5	304.2	306.9	292.6
AT	36.3	33.4	32.3	53.9	71.1	63.5
PL	:	31.1	36.6	:	23.9	26.6
PT	29.8	32.1	32.7	28.3	54.2	74.4
RO	:	12.8	32.0	:	11.2	17.9
SI	43.6	61.3	74.2	78.1	111.1	129.7
SK	29.6	22.2	32.4	41.5	50.6	61.2
FI	113.4	99.6	89.2	17.6	22.8	33.8
SE	67.0	73.9	63.0	23.7	39.4	34.0
UK	84.3	76.6	54.7	150.6	155.7	160.7

(1) Values are in constant prices, at the level of 2000.
(2) Estonia, Hungary and Malta, 1999; the United Kingdom, 1998.
(3) The United Kingdom, 2003.

Source: Eurostat (Economic Accounts for Agriculture, AACT_EAA03 and the Agricultural Information System, AGR_IS)

In addition to fertilisers and plant protection products, genetically modified organisms (GMOs) present another, sometimes controversial, means of controlling pests and diseases as well as improving yields. Since the early 1990s there has been specific Community legislation on GMOs, partly designed to protect citizens' health and the environment. Since the entry into force of this legislation, the commercial release of 18 GMOs has been authorised in the EU, although none since October 1998. Recent legislation distinguishes between the deliberate release into the environment of GMOs (Directive 2001/18/EC of the European Parliament and of the Council) and the placing on the market of GMO food and feed, or food and feed products containing or consisting of GMOs (Regulation (EC) No 1829/2003 of the European Parliament and of the Council).

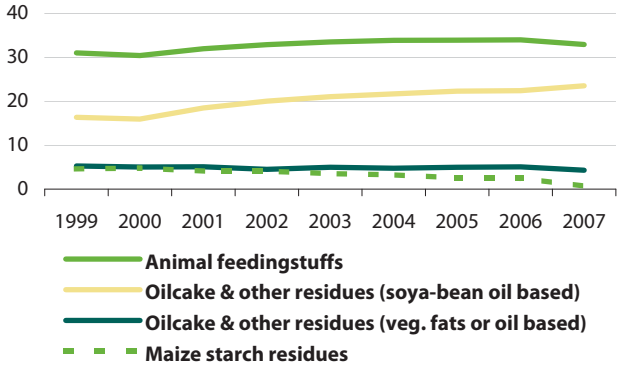
Globally, by far the largest area sown with GMOs is in the United States, followed by Argentina and Brazil (see Table 2.12). Regarding food and feed, the most important GMO crops are soybean and maize. Despite a slight dip in 2007, there was relatively steady growth in the volume of imports of animal feed from non-Member countries into the EU-27 after 2000 (see Figure 2.8). With a steady decline in maize starch residues and little change in vegetable fat or oil based oilcakes, the overall growth in imports during this period could be almost entirely attributed to rapid growth in the volume of soya-bean oilcake imports. Argentina and Brazil together accounted for just over three quarters (78.0 %) of the EU-27's imports of animal feed in 2007 (see Figure 2.9).

Table 2.12: Top 10 producers of genetically modified organisms (GMO) by area and main biotech crop, 2007

	Country	Area (million hectares)	Main crops
1	**USA**	57.7	Soybean, maize, cotton, canola, squash, papaya, alfalfa
2	**Argentina**	19.1	Soybean, maize, cotton
3	**Brazil**	15.0	Soybean, cotton
4	**Canada**	7.0	Canola, maize, soybean
5	**India**	6.2	Cotton
6	**China**	3.8	Cotton, tomato, poplar, petunia, papaya, sweet pepper
7	**Paraguay**	2.6	Soybean
8	**South Africa**	1.8	Maize, soybean, cotton
9	**Uruguay**	0.5	Soybean, maize
10	**Philippines**	0.3	Maize

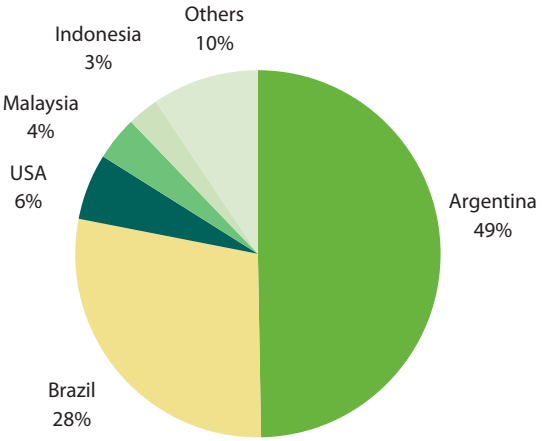
Source: International Service for the Acquisition of Agri-biotech Applications (ISAAA) and Clive James

Figure 2.8: Imports of animal feedingstuffs from outside the EU-27 (million tonnes)



Source: Eurostat (External trade data - by SITC and CN8)

Figure 2.9: Imports of animal feedingstuffs from outside the EU: main trading partners, 2007 (% of EU-27 imports)

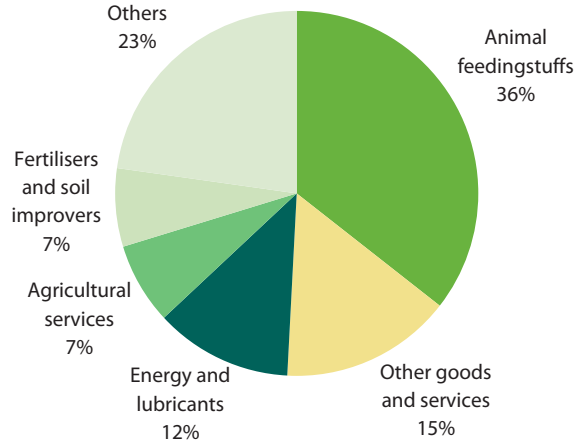


Source: Eurostat (External trade data - by SITC)

Intermediate consumption costs corresponded to more than half (57.8 %) of the value of agricultural output at basic prices generated across the EU-27 in 2006. Costs associated with animal production accounted for 38.6 % of total intermediate consumption costs in 2006, the overwhelming part of which was accounted for by animal feed (see Figure 2.10). Fertilisers, plant protection products and seeds, which are key costs within crop farming, accounted for 16.5 % of total intermediate consumption costs. Of the remaining costs, the category for other goods and services – that includes rental paid and fees for agricultural consultants and accountants among other items – accounted for a further 15.1 % of total costs, and energy and lubricants for a further 12.3 %.

Among the Member States, animal feedingstuffs accounted for over half of total intermediate consumption costs in Slovenia, Cyprus and Estonia in 2006, but closer to 25 % in the Netherlands, the United Kingdom, Sweden and Bulgaria (see Table 2.13). Energy costs accounted for over a quarter (27.1 %) of total intermediate consumption costs in Poland, more than twice the EU-27 average in 2006. Other goods and services accounted for about 30 % of total intermediate consumption costs in Portugal, about twice the EU-27 average, and one quarter of total costs in Sweden and the United Kingdom.

Figure 2.10: Intermediate consumption goods and services in agriculture, EU-27, 2006
(%, in value terms)



Source: Eurostat (Economic Accounts for Agriculture, AACT_EAA01)

Table 2.13: Value of intermediate consumption goods and services in agriculture, 2006
(%)

	Animal feeding-stuffs	Fertilisers & soil improvers	Energy & lubricants	Agri-cultural services	Other goods & services	Others
EU-27	35.6	6.8	12.3	7.3	15.1	22.9
BE	45.1	5.1	9.7	2.0	7.0	31.1
BG	22.5	7.8	22.5	12.7	9.0	25.6
CZ	37.9	5.7	12.1	3.1	15.7	25.6
DK	43.7	3.4	7.5	6.6	17.6	21.1
DE	39.6	6.6	11.7	5.7	15.0	21.4
EE	55.9	4.7	14.5	3.2	9.5	12.2
IE	46.6	9.7	7.9	7.0	11.1	17.7
EL	34.6	5.3	21.7	12.8	7.1	18.5
ES	42.8	7.7	10.3	3.7	7.6	27.9
FR	33.5	8.5	8.9	8.8	14.8	25.5
IT	35.6	6.2	12.5	10.9	15.7	19.1
CY	54.8	4.4	8.1	0.2	8.8	23.6
LV	37.8	8.8	17.8	4.1	10.4	21.1
LT	39.4	14.4	15.7	3.1	10.4	17.0
LU	34.6	7.4	9.5	5.0	15.8	27.6
HU	29.5	7.9	16.3	9.6	13.1	23.5
MT	49.3	2.2	13.2	0.0	13.1	22.1
NL	26.3	2.5	16.4	14.2	19.9	20.7
AT	38.5	4.0	10.6	7.2	19.3	20.4
PL	36.4	8.9	27.1	4.3	3.1	20.3
PT	34.2	3.8	10.9	6.1	30.4	14.7
RO	39.4	5.0	12.9	1.8	15.7	25.2
SI	53.4	5.6	13.7	3.2	5.5	18.7
SK	26.0	6.5	13.3	5.5	23.6	25.1
FI	38.1	7.9	10.8	2.5	20.6	20.0
SE	25.1	7.3	12.4	9.2	25.0	21.0
UK	25.8	8.3	8.8	6.7	24.7	25.7

Source: Eurostat (Economic Accounts for Agriculture, AACT_EAA01)

Agricultural production

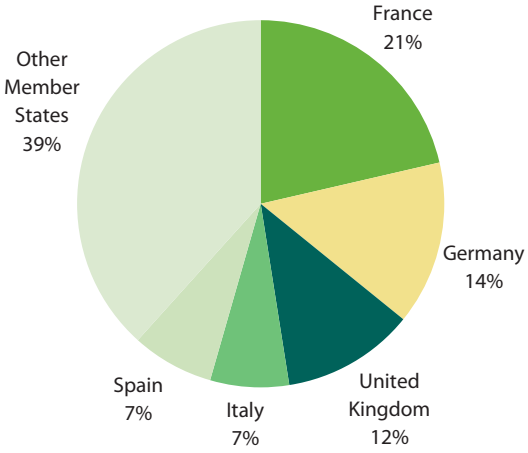
The livestock population across the EU-27 comprised about 161 million pigs, 95 million sheep, and 88 million head of cattle in 2006 (see Table 2.14), as well as 1.5 billion poultry birds. A little under half (47.4 %) of the EU-27's cattle population was found in France, Germany and the United Kingdom (see Figure 2.11). A similar proportion (44.2 %) of the pig population was concentrated in Germany, Spain and Poland, while a little under half (47.6 %) of the sheep population of the EU-27 was located in the United Kingdom and Spain.

Table 2.14: Livestock population, EU-27, 2006
(1 000 heads)

				Cattle	
			Laying hens		*of which:*
	Pigs	Sheep	(1)	Total	dairy cows
EU-27	161 526	*95 099*	478 600	88 463	24 305
BE	6 304	:	10 613	2 607	532
BG	1 013	1 635	8 263	637	350
CZ	2 741	169	9 917	1 390	417
DK	13 613	98	2 759	1 579	555
DE	26 602	2 017	43 300	12 677	4 054
EE	341	58	797	245	109
IE	1 620	3 826	4 133	6 002	1 087
EL	1 033	8 976	13 823	683	168
ES	26 034	21 847	:	6 184	942
FR	15 009	8 494	62 403	18 902	3 799
IT	9 281	8 227	55 500	6 340	1 814
CY	453	272	472	56	24
LV	417	41	2 115	377	182
LT	1 127	37	4 377	839	399
LU	87	9	:	186	46
HU	3 987	1 298	14 425	702	268
MT	74	12	500	19	8
NL	11 220	1 755	:	3 673	1 443
AT	3 139	312	5 552	2 003	527
PL	18 813	301	44 551	5 281	2 637
PT	2 296	3 549	7 677	1 407	307
RO	6 815	7 678	40 223	2 934	1 639
SI	575	132	:	454	113
SK	1 105	333	:	508	185
FI	1 435	88	3 180	929	309
SE	1 662	506	5 065	1 516	385
UK	4 731	23 429	36 600	10 335	2 005

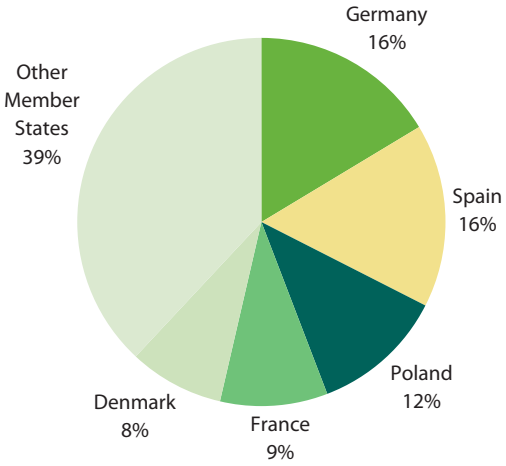
(1) EU-27, Belgium, the Czech Republic, Estonia, Greece, France, Finland and Sweden, 2005.
Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR1)

Figure 2.11a: Cattle population, 2006
(% of EU-27 total)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR1)

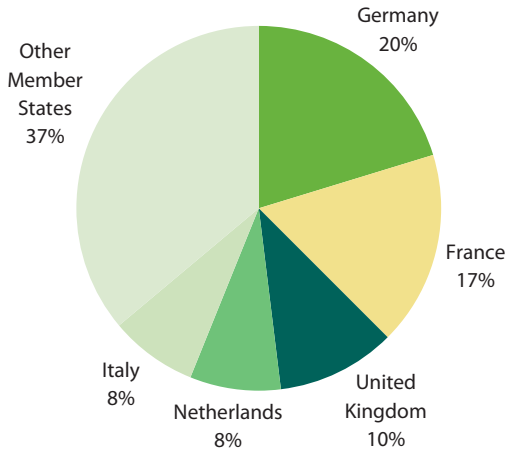
Figure 2.11b: Pig population, 2006
(% of EU-27 total)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR1)

The quantity of milk produced in the EU-27 is controlled by a system of production quotas. The milk quota for the EU-25 was set at 138 million in 2006 to which a further total of 4 million tonnes of quota were added for Romania and Bulgaria in 2007. Most dairy farmers sell their milk to dairy processors and it then enters the food chain. Other dairy farmers market their milk directly to consumers and on some dairy farms milk is consumed on the farm. Of the 148.1 million tonnes of milk produced across the EU-27 in 2006, the vast majority (89.5 %) – some 132.5 million tonnes of milk – was collected (see Table 2.15). In some of the newer Member States (particularly those in eastern Europe) a significant proportion of milk production is consumed on the farm; only about one fifth (21.4 %) of milk produced in Romania was collected. Over two thirds (70.4 %) of the milk collected in the EU-27 came from Germany, France, the United Kingdom, the Netherlands, Italy and Poland (see Figure 2.12).

Figure 2.12: Cows' milk collected, 2006
(% of EU-27 total)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR4)

Table 2.15: Milk production and collection, 2006 (1 000 tonnes)

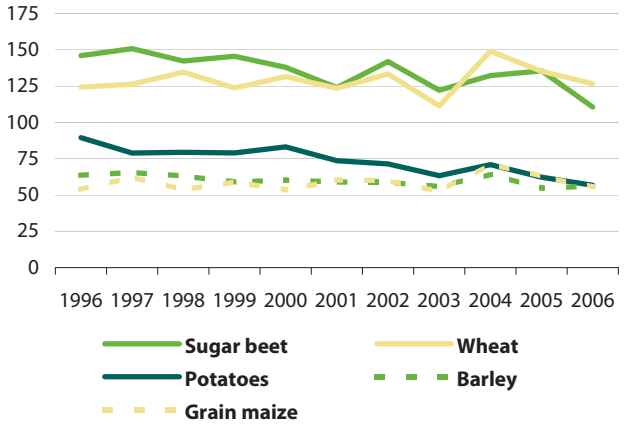
	Cows' milk		Ewes' milk		Goats' milk		Buffalos' milk	
	Production	Collection	Production	Collection	Production	Collection	Production	Collection
EU-27	148 128	132 589	:	:	:	:	:	:
BE	2 917	2 837	:	0	:	7	:	:
BG	1 299	839	108	40	102	3	7	2
CZ	2 767	2 393	:	0	:	0	:	0
DK	4 627	4 492	0	0	0	0	0	0
DE	27 995	26 876	:	0	35	0	:	0
EE	692	606	:	:	1	:	:	:
IE	5 272	5 234	:	:	:	:	:	:
EL	764	670	663	467	427	214	:	:
ES	6 469	5 824	439	389	504	356	:	0
FR	24 316	22 892	270	267	593	456	:	0
IT	10 989	10 193	548	463	53	27	221	195
CY	149	139	16	15	24	20	:	0
LV	812	592	:	:	3	:	:	:
LT	1 885	1 296	:	0	7	0	:	0
LU	268	255	:	:	1	1	:	:
HU	1 844	1 399	3	1	4	:	:	:
MT	41	41	2	:	1	:	:	:
NL	10 995	10 657	:	:	141	138	:	:
AT	3 147	2 674	8	3	14	3	:	0
PL	11 982	8 826	1	0	20	2	:	0
PT	1 984	1 851	100	26	29	13	0	0
RO	5 290	1 133	436	9	215	3	28	5
SI	642	511	0	:	1	:	:	:
SK	1 092	962	9	4	0	0	:	0
FI	2 413	2 348	0	:	:	:	0	:
SE	3 130	3 130	0	0	0	0	0	0
UK	14 348	13 920	0	0	0	0	0	0

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR3 and FOOD_IN_PAGR4)

Despite the vagaries of the weather, cereal production across the EU-27 was quite stable in the period between 1996 and 2006 (see Figure 2.13). In contrast, there were notable declines in potato (down 36.6 %) and sugar beet (down 24.2 %) output. In the case of sugar beet, a reorganisation of markets in the sugar sector (Council Regulation (EC) No 318/2006) and the associated renunciation of the sugar quota could explain the sharp fall in sugar beet production in 2006, while many commentators expect further substantial declines.

France and Germany were, by far, the largest producers of cereals in 2006 accounting for about two fifths (39.0 %) of total EU-27 production (see Table 2.16), Poland being the third largest producer. Germany and Poland were the largest producers of potatoes, accounting for one third (33.5 %) of EU-27 production. France was the main producer of sugar beet in 2006, accounting for a little more than a quarter (27.0 %) of the EU-27's total production, with Germany (18.7 %) and Poland (10.4 %), the next largest producers.

Figure 2.13: Crop production, EU-27 (million tonnes)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR5)

Table 2.16: Crop production, 2006
(1 000 tonnes)

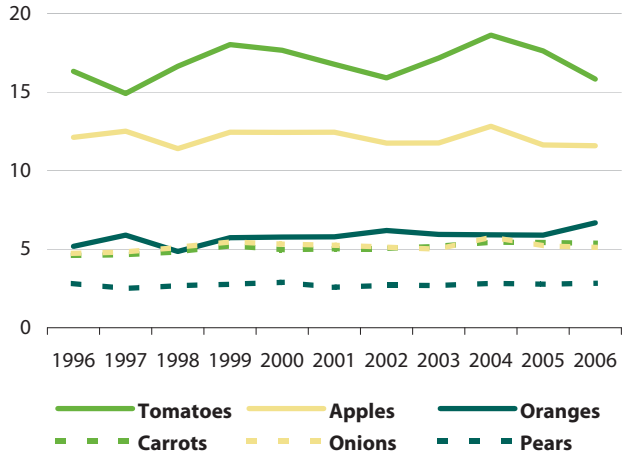
	Cereals					
	Total	Wheat	Barley	Grain maize	Potatoes	Sugar beet
EU-27	269 398	*126 634*	56 197	55 488	56 711	*110 628*
BE	2 742	1 720	367	576	2 593	5 667
BG	5 532	3 302	546	1 588	386	27
CZ	6 386	3 506	1 898	606	692	3 138
DK	8 632	4 802	3 270	:	1 361	2 314
DE	43 475	22 428	11 967	3 220	10 031	20 647
EE	619	220	303	:	153	0
IE	2 090	801	1 137	0	404	*76*
EL	3 804	1 576	229	1 647	855	1 650
ES	19 363	5 576	8 318	3 461	2 502	6 045
FR	61 708	35 364	10 401	12 904	6 363	29 871
IT	20 207	7 182	1 282	9 671	1 783	4 770
CY	67	7	58	:	125	:
LV	1 159	598	307	:	551	474
LT	1 856	810	742	5	409	717
LU	162	76	50	2	16	0
HU	14 467	4 376	1 075	8 282	564	2 454
MT	:	:	:	:	19	:
NL	1 750	1 185	269	181	6 240	5 414
AT	4 460	1 396	914	1 472	655	2 493
PL	21 776	7 060	3 161	1 261	8 982	11 475
PT	1 167	250	106	514	611	320
RO	15 759	5 526	773	8 985	4 016	1 152
SI	494	134	62	276	107	262
SK	2 929	1 343	642	838	263	1 371
FI	3 790	684	1 972	:	576	952
SE	4 128	1 967	1 111	:	773	2 189
UK	20 878	*14 747*	5 239	0	5 684	7 150

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR5)

Despite the highly perishable nature of fruit and vegetables and their susceptibility to damage from pests and inclement weather, the production of most of the main types of fruit and vegetables across the EU-27 as a whole was generally stable in the period between 1996 and 2006 (see Figure 2.14). The main exception concerned tomatoes, for which production fluctuated between about 15 million and 18 million tonnes.

The bulk of fruit and vegetables production in the EU-27 tends to be concentrated in a few Member States. Among vegetables, about two thirds (63.4 %) of the EU-27's tomatoes came from Italy and Spain in 2006, about 60 % of carrots came from Poland, the United Kingdom, France, Italy and the Netherlands, and about half (52.0 %) of all onions came from Spain, the Netherlands and Poland (see Table 2.17). A similar pattern was observed for fruit, as orange production was concentrated in the Mediterranean Member States (particularly Spain and Italy), while a majority (56.1 %) of the EU's apple production in 2006 came from Poland, France and Italy.

Figure 2.14: Fruit and vegetable production, EU-27 (million tonnes)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR5)

Table 2.17: Fruit and vegetable production, 2006 (1 000 tonnes)

	Tomatoes	Carrots	Onions	Apples	Oranges	Pears
EU-27	*15 828*	*5 381*	*5 115*	*11 585*	6 678	*2 831*
BE	238	236	55	358	:	268
BG	213	13	20	26	:	1
CZ	:	23	51	:	:	:
DK	18	69	56	32	:	9
DE	53	504	337	948	:	49
EE	1	9	0	1	:	:
IE	:	:	:	:	:	:
EL	1 550	37	199	263	856	55
ES	3 679	:	1 151	661	3 211	590
FR	740	625	321	2 080	1	234
IT	6 351	622	378	2 113	2 346	907
CY	35	2	7	11	29	1
LV	0	32	14	34	:	1
LT	1	34	8	75	:	2
LU	0	0	0	9	:	2
HU	205	84	95	537	0	33
MT	16	1	7	0	1	0
NL	675	541	920	365	:	222
AT	39	77	100	509	:	117
PL	247	833	590	2 305	:	59
PT	:	:	:	247	235	175
RO	572	194	251	579	:	60
SI	5	3	5	119	:	11
SK	36	13	13	31	:	1
FI	39	57	18	3	:	:
SE	17	117	:	24	:	:
UK	84	701	442	241	:	28

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR5)

Table 2.18: Organic livestock population, 2006
(1 000 heads)

	Pigs (1)	Sheep (1)	Laying hens (2)	Cattle	
				Total (1)	*of which:* dairy cows (3)
BE	12.2	13.3	94.5	33.4	8.3
BG	:	1.1	0.0	0.3	0.1
CZ	1.5	40.0	3.2	115.2	4.3
DK	80.9	12.4	875.6	132.1	53.1
DE	:	:	:	:	:
EE	0.4	20.7	4.6	13.3	3.2
IE	0.9	38.0	24.0	24.5	0.9
EL	110.1	259.3	62.5	22.3	0.3
ES	13.5	212.2	59.3	81.5	2.5
FR	:	:	1 604.4	:	62.1
IT	29.7	852.1	1 055.1	222.7	58.4
CY	:	:	:	:	:
LV	6.6	6.1	4.2	21.4	7.6
LT	0.2	8.5	0.6	8.7	6.3
LU	0.4	0.4	2.4	1.0	0.2
HU	0.8	2.1	:	8.7	:
MT	:	:	:	:	:
NL	28.0	9.2	927.5	36.8	16.2
AT	49.9	81.3	:	338.6	81.4
PL	:	:	:	:	:
PT	6.8	124.4	:	62.2	:
RO	1.7	86.2	4.3	11.4	8.2
SI	1.7	22.9	12.5	14.5	0.9
SK	0.3	87.6	0.0	28.9	5.0
FI	2.2	11.3	80.5	22.4	4.6
SE	26.4	34.0	360.1	95.9	24.1
UK	32.9	747.3	1 573.9	244.8	58.6

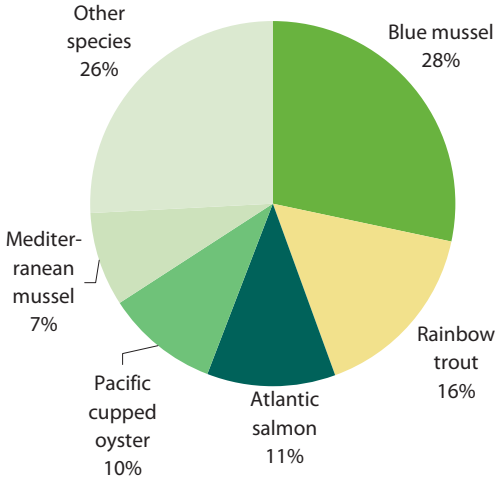
(1) Latvia and Portugal, 2005; Hungary, 2004; Luxembourg, 2002.
(2) Latvia, 2004; Luxembourg, 2002.
(3) Spain, Latvia and the United Kingdom, 2005; Luxembourg, 2002.

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PORG3)

Aquaculture is the farming of aquatic populations under controlled conditions. With increasing controls on landings of fish in European waters, aquaculture is a relatively selective method of meeting demand for specific fish or mollusc species. The most common types of aquaculture production are for mussels, oysters, salmon and trout (see Figure 2.15). Nevertheless, the majority of fish and molluscs eaten by European consumers tend to come directly from open waters.

The Netherlands and Spain landed the largest quantities of fish for human consumption among the Member States in 2006 (each about three quarters of a million tonnes). The main type of fish landed, however, varied considerably, in part reflecting offshore availability and in part consumer preferences (see Table 2.19); Italy landed by far the most European anchovies, the Netherlands and Denmark the most Atlantic herring, Spain and Portugal the most European pilchards, and the United Kingdom the most Atlantic mackerel.

Figure 2.15: Aquaculture production, EU-27, 2005 (% of total)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PFISH2)

Table 2.19: Fish landings for selected species for human consumption, 2006
(tonnes)

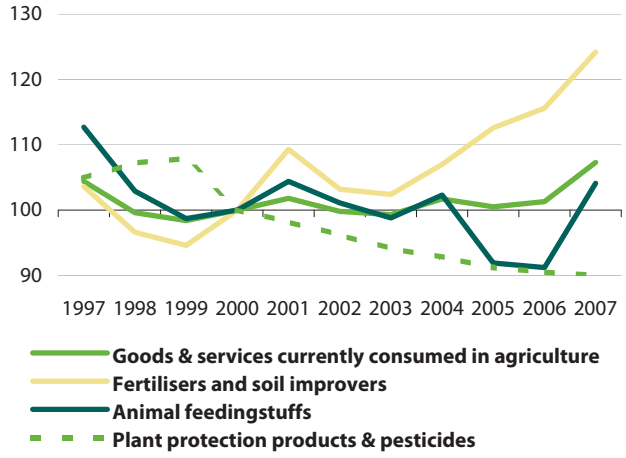
	Total	Europ. anchovy	Atlantic herring	Europ. hake	Atlantic mackerel	Europ. pilchard	Europ. plaice
BE	18 010	-	2	56	13	:	4 123
BG	4 389	4	0	0	:	0	:
CZ	-	-	-	-	-	-	-
DK	338 553	:	210 166	1 462	25 155	:	23 893
DE	128 587	36	67 593	7	11 447	:	569
EE	:	-	:	-	-	0	-
IE	220 211	-	30 440	6 318	29 668	706	300
EL	96 016	14 158	-	4 793	:	11 322	-
ES	776 580	8 193	350	33 975	25 028	82 365	11
FR	314 582	6 385	6 736	7 450	17 906	35 928	2 193
IT	299 266	78 051	-	17 865	2 045	13 668	52
CY	1 900	0	-	2	-	4	-
LV	:	-	:	-	-	-	-
LT	:	-	:	-	:	-	-
LU	-	-	-	-	-	-	-
HU	-	-	-	-	-	-	-
MT	1 298	-	-	:	-	-	-
NL	781 360	4	348 818	70	83 879	:	35 608
AT	-	-	-	-	-	-	-
PL	:	-	:	-	:	:	-
PT	162 420	100	-	1 965	829	48 144	100
RO	:	:	:	:	:	:	:
SI	224	:	-	3	8	:	-
SK	-	-	-	-	-	-	-
FI	5 596	-	2 273	-	-	-	-
SE	123 428	-	66 968	52	3 370	-	409
UK	391 736	:	87 110	1 460	90 144	2 056	3 962

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PFISH3A)

Agricultural prices

There were contrasting developments in real-terms prices (obtained by deflating the corresponding nominal data with an implicit price index for gross domestic product) for the different goods and services currently consumed in agriculture during the period between 1997 and 2007. On the one hand, the average real-terms price of fertilisers and soil improvers (particularly inorganic ones) in the EU-27 rose sharply from a relative low in 1999 (see Figure 2.16), in large part reflecting the steep rise in oil and natural gas prices. For most of the period under review, the real-terms price of animal feedingstuffs declined, likely reflecting the lowering of support prices for cereals and greater global trade, but this trend was abruptly bucked by a steep rise in 2007 which appears to reflect strong demand from developing countries like China and India for growing livestock populations, as well as competing demand for the use of crops as bio fuels. In contrast, the real-terms price of plant protection products declined steadily after 1999, probably reflecting reduced demand in the face of environmental and food-safety led policies.

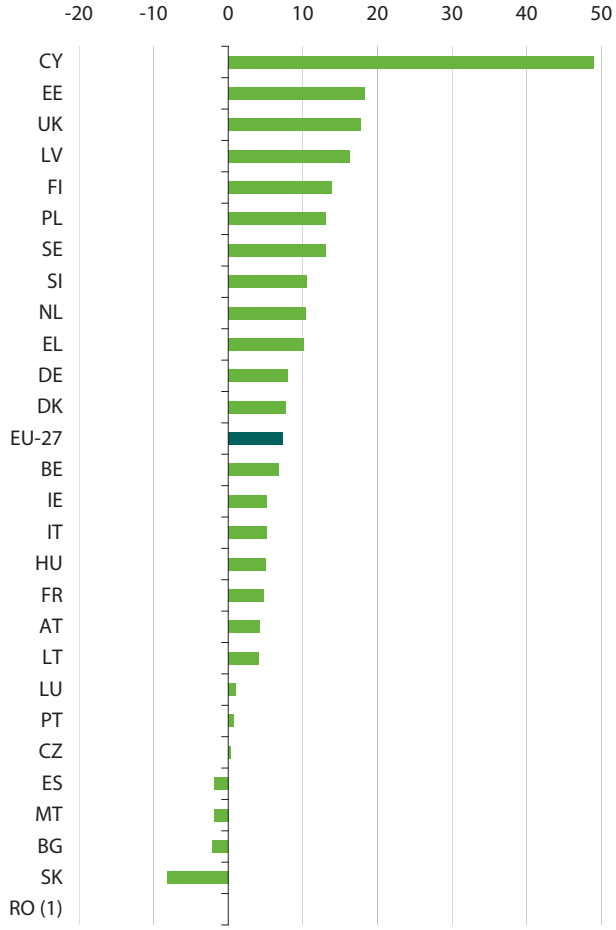
Figure 2.16: Real-terms (i.e. deflated) prices for selected goods and services currently consumed in agriculture, EU-27 (2000=100)



Source: Eurostat (Agricultural prices and price indices, APRI_PI00_INA)

Real-terms prices for all the goods and services currently consumed in agriculture rose by 7.3 % on average across the EU-27 between 2000 and 2007. Among the Member States, however, there were much stronger price rises in Cyprus (approaching 50 %) and to a lesser extent, Estonia, the United Kingdom and Latvia (see Figure 2.17). In a few Member States, however, the real-terms price of intermediate consumption goods and services was a little lower in 2007 than in 2000.

Figure 2.17: Overall change in the real-terms (i.e. deflated) price of goods and services currently consumed in agriculture, 2000-2007 (%)



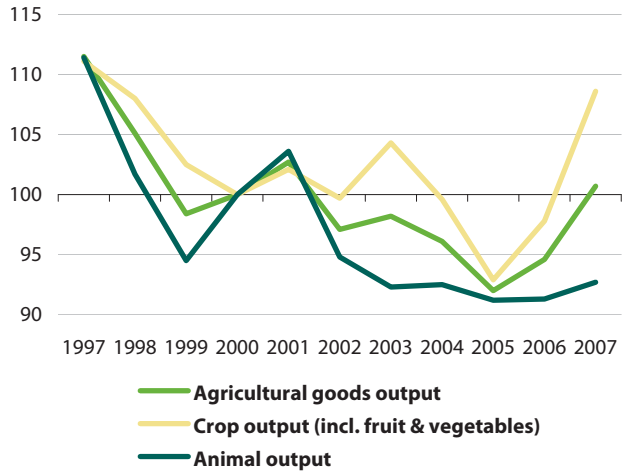
(1) Not available.

Source: Eurostat (Agricultural prices and price indices, APRI_PI00_INA)

The general downward trend in the real-terms price of agricultural goods output between 1997 and 2005 was followed by a strong rebound in 2006 and 2007, which reflected sharp increases in crop output prices (see Figure 2.18). The upturn in crop output prices reflected growing global demand for cereals and oilseeds for animal feed, as well as for crops as bio fuels rather than food or feed.

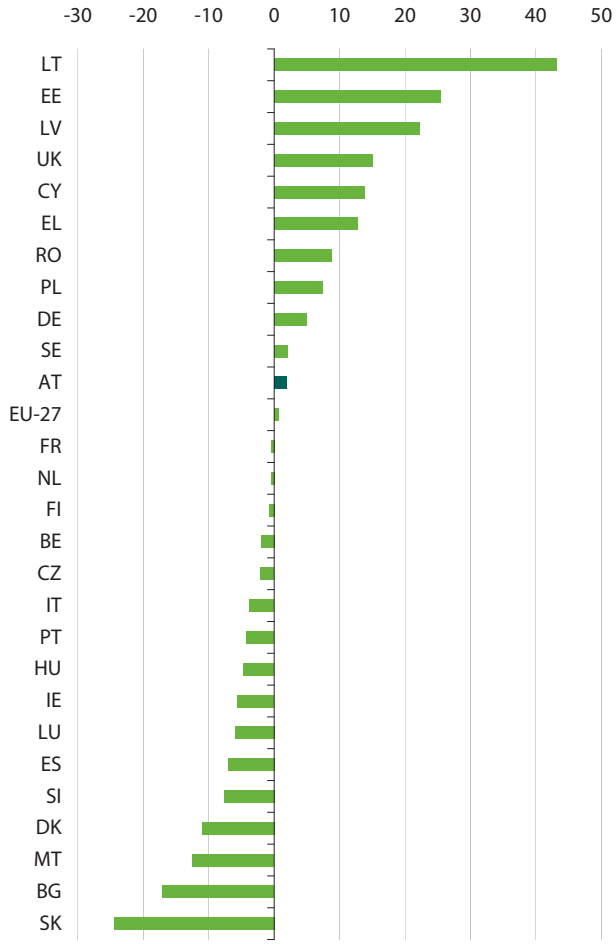
The average real-terms producer price of agricultural goods in 2007 was little different to that in 2000 for the EU-27 as a whole, but there were wide differences in price developments between the Member States (see Figure 2.19). At one extreme, average prices rose a little over 40 % in Lithuania and by between 20 – 25 % in the other two Baltic Member States. At the other extreme, average producer prices declined by about 20 % in Bulgaria and Slovakia. Among the EU-15 Member States, the strongest rise in average producer prices for agricultural goods was in the United Kingdom (up 15 %, albeit from a relative low in 2000) and the sharpest decline was registered in Denmark (down 11 %), with little change in France.

Figure 2.18: Real-terms (i.e. deflated) prices for agricultural output (incl. fruit and vegetables), EU-27 (2000=100)



Source: Eurostat (Agricultural prices and price indices, APRI_PI00_OUTA)

Figure 2.19: Overall change in the real-terms (i.e. deflated) price of agricultural goods output, 2000-2007
(%)



Source: Eurostat (Agricultural prices and price indices, APRI_PI00_OUTA)

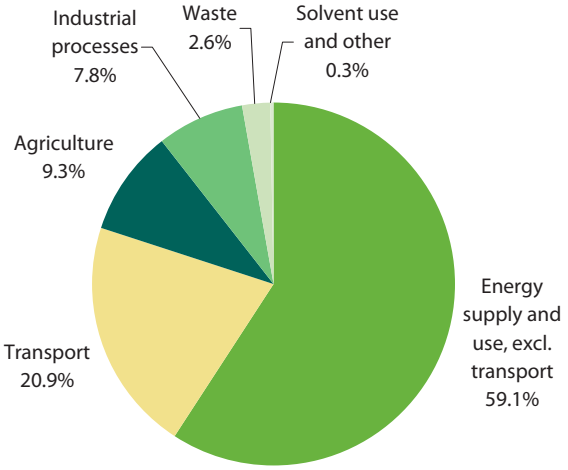
Agricultural externalities

There has been growing consumer interest in the impact of agricultural production on the environment, reflecting concerns about pollution (air and water), animal welfare, habitat destruction, and wildlife diversity among other issues. A number of these concerns have begun to be addressed, underlined by the closer integration of agriculture, rural development and the environment in EU policy legislation (for example, the cross-compliance criteria of the CAP).

Climate change and the need to avoid its potentially damaging consequences has become a high priority for the EU, with agreement under the Kyoto Protocol to try to achieve an 8 % reduction (from 1990 levels) in greenhouse gas emissions by 2008-2012.

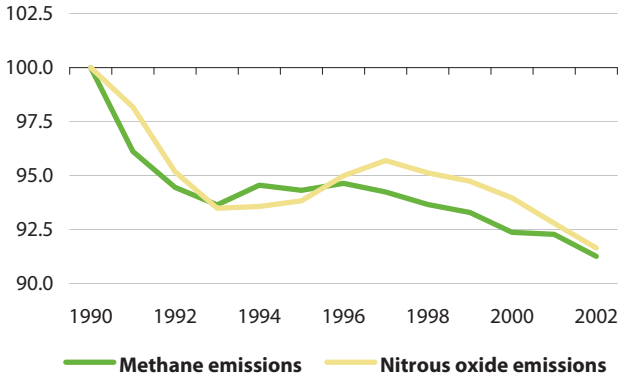
Data from the European Environment Agency suggest that agriculture contributed a little less than 10 % of the greenhouse gas emissions from the EU-15 in 2004 (see Figure 2.20), more than industrial processes, but less than transport or energy supply. The main sources of agriculture-related greenhouse gas emissions are manure management, agricultural soil management, and enteric fermentation. They are closely linked to the production of livestock as methane emissions come from fermentation in ruminant animals (cattle and sheep) and from the decomposition of manure, while nitrous oxide emissions come from manure storage and the conversion of nitrogen in soils. Between 1990 and 2002, both methane and nitrous oxide emissions from agriculture fell by about 8.5 % (see Figure 2.21).

Figure 2.20: Greenhouse gas emissions, EU-15, 2004
(% share of total greenhouse gas emissions)



Source: European Environment Agency

Figure 2.21: Methane and nitrous oxide gas emmissions from agriculture, EU-15
(1990=100)

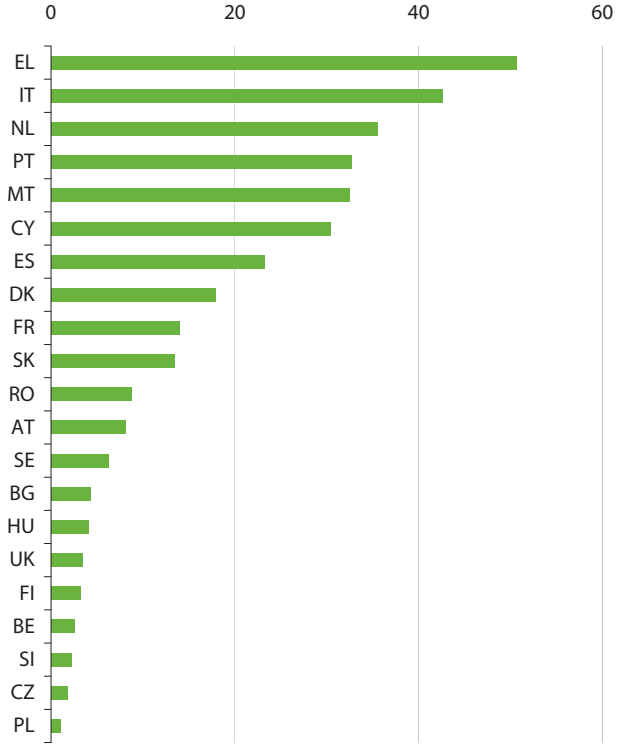


Source: European Environment Agency

Water irrigation is used to transmit water to agricultural land in order to help growing conditions, particularly in times of drought. Sprinkler and drop irrigation is generally less water intensive than gravity irrigation, which remains the typical type of irrigation in Spain, Portugal and Italy. The institute for European environmental policy suggested in 2000 that the scope of irrigation impacts could cover water pollution from increased pesticide and nutrient run-off, aquifer exhaustion and the drying-out and subsequent damage to natural areas, salinisation or contamination of ground-water sources and other ecological effects from large-scale water transfers.

The share of irrigable area in arable and permanent crop areas is generally highest in the southern Member States (see Figure 2.22);

Figure 2.22: Irrigable area, 2005
(% of arable and permanent crop areas)

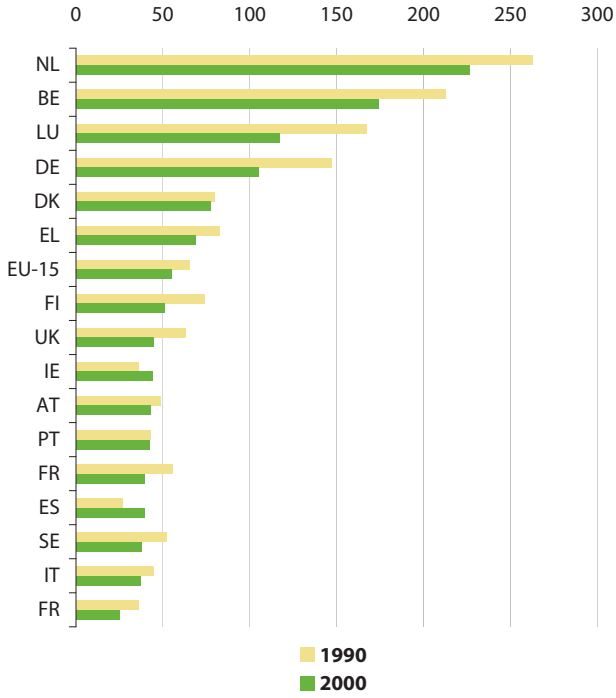


(1) Germany, Estonia, Ireland, Latvia, Lithuania and Luxembourg, not available.
Source: Eurostat (Survey on the structure of agricultural holdings, EF_LU_OFIRRIG)

in Greece it accounted for about half (51 %) of the area in 2005, while this ratio was about a third in Italy, Portugal, Malta and Cyprus. The Netherlands also had a high proportion of irrigable area (generally for horticulture, rather than food production), although this potential is likely to have been used in only the very driest summers.

Gross nutrient balances for nitrogen indicate the greater potential for water pollution and identifies those agricultural areas and systems with very high nitrogen loadings. The highest nutrient balances among the EU-15 Member States were in the Benelux countries, between two and a half and four times the average level across the EU-15 (see Figure 2.23). Gross nutrient balances of nitrogen declined between 1990 and 2000, however, in almost all of the EU-15 Member States, with the exception of Ireland and Spain.

Figure 2.23: Gross nutrient balances (1)
(kg of nitrogen/hectare)

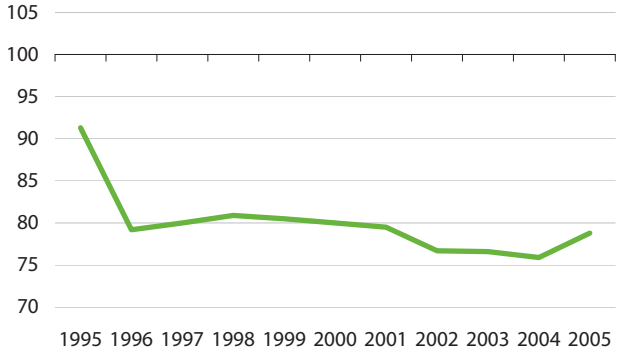


(1) Includes European Environment Agency estimates.
Source: European Environment Agency

Agricultural practices can have a significant impact on flora and fauna. The European Environment Agency highlights (see Irena indicator report no. 6/2005) the inverse relationship between farmland bird numbers and agricultural intensity. After a period of strong decline in farmland bird numbers through to 1996, there appears to have been a levelling off in bird numbers through to 2005 (see Figure 2.24), albeit at historically low levels.

As well as concerns about some of the impacts of agriculture on wildlife populations, there are also concerns about the loss of particular animal breeds. In a majority of the EU-15 Member States, over half of all national livestock breeds had either become extinct or were at endangered or critically low levels in 2003 (see Figure 2.25); in Austria, half of all national livestock breeds had already become extinct.

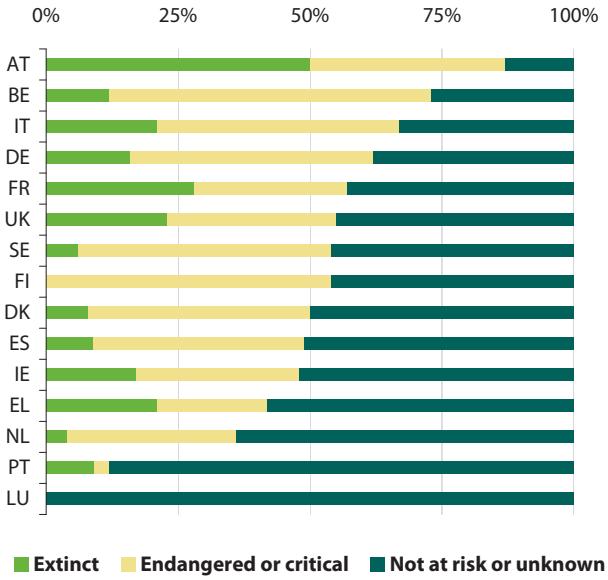
Figure 2.24: Farmland bird population index, EU (1) (1990=100)



(1) The indicator is an aggregated index of population trend estimates of a selected group of breeding bird species dependent on agricultural land for nesting or feeding. Indices are calculated for each species independently and are weighted equally when combined in the aggregate index using a geometric mean. Aggregated EU indices are calculated using population-weighted factors for each country and species. The EU aggregate figure is an estimate based on the following 18 Member States: Belgium, the Czech Republic, Denmark, Germany, Estonia, Ireland, Spain, France, Italy, Latvia, Hungary, the Netherlands, Austria, Poland, Portugal, Finland, Sweden and the United Kingdom.

Source: Pan-European Common Bird Monitoring scheme

Figure 2.25: Endangered risk status of national livestock breeds, 2003 (1)
(% of total number of breeds)



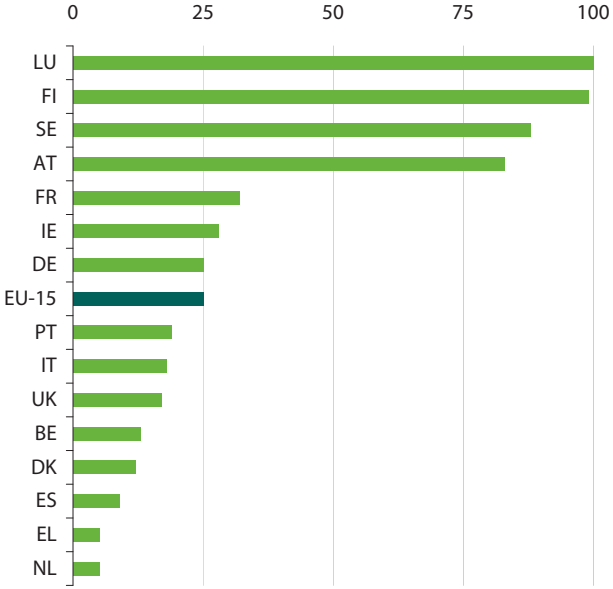
(1) Based on cattle, pigs, sheep, goats and poultry.
Source: FAO, Domestic Animal Diversity Information System

Agri-environment schemes were introduced into EU agricultural policy during the late 1980s as an instrument to support specific farming practices that help to protect the environment and maintain the countryside. With the CAP reform in 1992, the implementation of agri-environment programmes became compulsory for Member States in the framework of their rural development plans. The 2003 CAP reform maintains the nature of the agri-environment schemes as being obligatory for Member States, whereas they remain optional for farmers.

Farmers who commit themselves, for a five-year minimum period, to adopt environmentally-friendly farming techniques that go beyond usual good farming practice (such as commitments to the management of low-intensity pasture systems and the conservation of high-value habitats and their associated biodiversity), receive in return payments that compensate for additional costs and loss of income that arise as a result of altered farming practices.

More than one third of the Community contribution to rural development (EAGGF - European Agricultural Guidance and Guarantee Fund) has been spent on agri-environmental measures (average 2000-2002). Across the EU-15, the share of agricultural land enrolled in agri-environmental measures in the total utilised agricultural area increased from 15 % in 1998 to about 25 % in 2002. In Austria, Sweden, Finland and Luxembourg, this share was between 75 % and 100 % (see Figure 2.26). In contrast, only between 5 % and 10 % of utilised agricultural area in the Netherlands, Greece and Spain was enrolled in EU agri-environmental measures. There were 8 442 agri-environmental contracts in 2001 to support animal breeds that are endangered, covering 60 568 livestock units.

Figure 2.26: Agricultural area enrolled in agri-environmental schemes, 2002 (1)
(% of UAA)



(1) The data include agri-environment contracts under the former Regulation (EC) 2078/1992 and contracts signed in 2000-2002 under the current Regulation (EC) 1257/1999.

Source: Directorate-General for Agriculture and Rural Development, European Commission

3

Processing stage

Context

This section refers to the processing of food and beverages. It should be noted that for many products, in particular wine, olive oil, eggs and cheese, processing may be done by agricultural holdings rather than industrial enterprises. Therefore, statistics that focus on industrial food and beverage processing while covering industrial activities, are likely to under-represent the total processing of food and beverages in any particular economy. Enterprises within food and beverages processing activities not only generate products for final consumption (many of which are essential daily products), but they also provide intermediate products (such as oils, fats and sugars) for other manufacturing activities that are used in a variety of manufacturing applications and subsequently are not part of the farm to fork food chain. The food and beverages manufacturing sector remains fragmented, despite consolidation, with only a small number of large enterprises/groups that have a global market presence and a large number of much smaller enterprises/groups that serve local, regional and national markets.

Food and beverages processing is affected by a range of legislation, including for example legislation on animal welfare, food hygiene, additives and residues, and labelling. More generally, several aspects of the CAP may have implications for processes and costs. A 2004 Council Regulation ((EC) 1/2005) aims to help safeguard animal welfare by protecting animals during transport. The Regulation requires that animals are transported so as to avoid injury or undue suffering; the length of journeys should be minimised and carried out without delay; animals should be fit; the means of transport as well as loading and unloading practices should avoid injury and suffering and ensure animal safety; personnel should be trained or competent and carry out tasks without violence; the area and space available to animals should be appropriate, as well as water, feed and rest being offered at suitable intervals.

Legislation on slaughtering practices also aims to minimise the pain and suffering of animals through the use of properly approved stunning and killing methods, based on scientific knowledge and practical experience. The first legislation was passed in 1974 and revised and extended in 1993. In 2004 and 2006 the European Food Safety Authority (EFSA) adopted two opinions on stunning and killing methods, and the European Commission has announced its intention to propose revisions to this legislation.

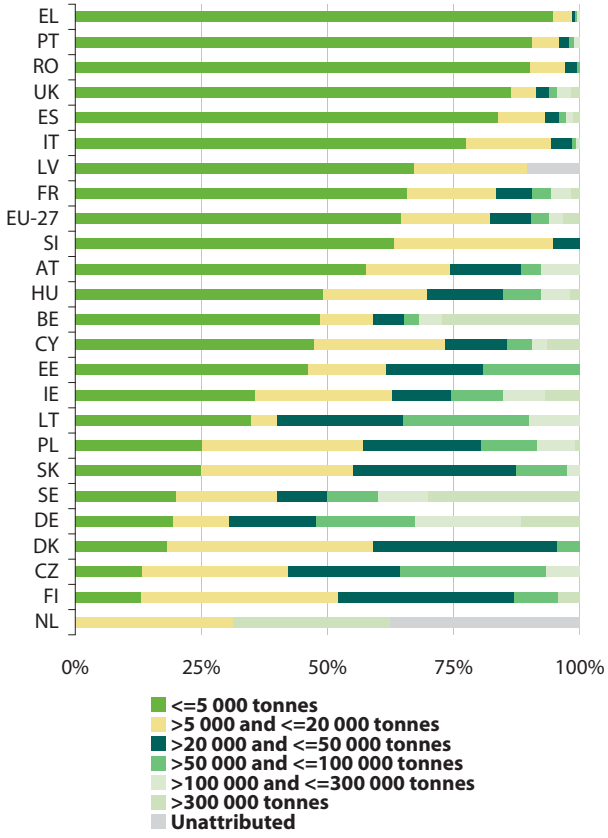
National authorities must make sure that rules on animal welfare are respected by all animal handlers and keepers. The EU food and veterinary office (FVO) carries out inspections to verify that the EU legislation is properly implemented and enforced. Under the Community action plan on the protection and welfare of animals (COM (2006) 13) adopted by the European Commission in 2006, training for national authorities responsible for controlling animal welfare standards is foreseen.

As part of a series of measures to increase food safety (and restore consumer confidence) new food hygiene measures were adopted in 2004: European Parliament and Council Regulations ((EC) 852/2004, 853/2004 and 854/2004) on food hygiene came into force at the start of 2006. Food processing enterprises are required to apply good hygiene practices for which guides have been developed. Specific requirements are laid down for products of animal origin, and for organising official controls on such products intended for human consumption.

Structural overview

For animal food products, the first stages are either milking for dairy products or slaughtering for meat products. Figure 3.1 illustrates the very different scale of dairy operations among EU-27 Member States in 2006, more northerly Member States tended to report larger dairies and the southern Member States smaller dairies, with the United Kingdom the main exception.

Figure 3.1: Number of dairies, breakdown by dairy size class based on milk collected, 2006 (1)
(% of total number of dairies)



(1) Luxembourg, not available; Malta has one dairy that collected between 20 000 and 50 000 tonnes of milk; Greece, Lithuania, Hungary, Slovenia and Finland, 2003.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT6)

Across the EU as a whole, the number of enterprises operating in meat production and processing appears to have fallen during the last decade; a number of Member States have seen a large reduction in their respective numbers of enterprises, notably the Czech Republic, Denmark, France and the United Kingdom – see Table 3.1.

Table 3.1: Number of enterprises (units)

	Production, processing and preserving of meat and meat products			*of which:* production and preserving of meat		
	1995 (1)	2000	2005 (2)	1995 (3)	2000 (4)	2005
EU-27	:	54 635	45 347	:	:	11 168
BE	:	939	782	:	541	435
BG	447	505	599	:	:	209
CZ	2 089	1 542	916	:	:	:
DK	240	158	159	66	50	55
DE	:	18 532	12 615	:	425	751
EE	:	76	59	:	23	24
IE	146	156	129	66	71	62
EL	:	:	403	:	:	152
ES	3 236	4 092	4 298	880	798	891
FR	15 187	12 574	11 216	1 742	1 489	1 453
IT	3 662	3 743	3 854	1 770	1 798	1 607
CY	:	79	72	:	8	10
LV	:	156	132	:	48	55
LT	:	367	239	:	263	142
LU	10	28	28	8	25	25
HU	:	333	619	:	202	417
MT	:	24	:	:	7	:
NL	855	795	735	440	375	330
AT	1 402	1 229	1 138	120	157	158
PL	3 974	4 521	3 597	2 686	2 966	2 136
PT	447	453	630	137	119	179
RO	:	1 579	1 038	:	1 029	621
SI	158	173	139	111	95	69
SK	53	90	98	28	44	68
FI	193	222	238	38	44	37
SE	435	492	525	165	175	182
UK	1 294	1 187	1 009	406	400	306

(1) Bulgaria, France, Poland and the United Kingdom, 1996.
(2) The Czech Republic, 2004.
(3) Portugal and the United Kingdom, 1996.
(4) Romania, 2001.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT5)

Table 3.2: Main structural indicators for the manufacture of food products and beverages

	Enterprises (units)		Persons employed (units)		Turnover (EUR million)	
	1995 (1)	2005 (2)	1995 (3)	2005 (4)	1995 (5)	2005 (6)
EU-27	:	309 702	:	4 688 100	:	850 333
BE	:	7 671	99 251	96 681	26 289	30 423
BG	6 715	5 937	113 909	106 962	1 192	2 812
CZ	5 979	6 082	:	:	:	9 049
DK	2 409	1 778	91 633	85 133	17 136	19 809
DE	:	32 709	878 862	844 775	148 758	148 506
EE	:	425	:	17 365	846	1 094
IE	694	:	46 259	49 438	13 393	21 884
EL	:	15 195	:	83 691	:	10 146
ES	26 753	29 353	363 573	389 065	53 650	87 785
FR	71 589	67 985	619 352	649 143	129 618	142 794
IT	64 199	:	429 257	440 892	72 588	94 717
CY	:	960	9 571	12 671	666	1 269
LV	:	778	:	35 461	:	1 376
LT	1 074	1 434	56 394	52 355	1 273	2 216
LU	217	190	:	:	:	:
HU	:	6 766	131 735	121 826	6 094	9 729
MT	:	:	:	:	:	:
NL	5 905	4 585	143 424	124 379	41 680	48 708
AT	4 736	4 134	:	75 885	11 783	12 994
PL	17 978	16 998	413 665	438 833	18 601	34 502
PT	7 684	10 268	112 484	104 942	9 103	11 588
RO	:	10 820	289 093	203 840	4 490	7 171
SI	1 185	826	:	:	1 421	1 649
SK	:	:	:	46 936	1 923	2 624
FI	1 965	1 861	45 167	39 961	8 136	8 989
SE	2 586	3 288	:	:	:	:
UK	8 265	6 994	488 553	463 988	84 429	107 521

(1) Bulgaria, France, Poland and the United Kingdom, 1996.
(2) The Czech Republic, 2004.
(3) Germany and France, 1999; Lithuania and Hungary, 1998; Romania, 1997; Bulgaria, Poland and the United Kingdom, 1996.
(4) Ireland, France and Finland, 2003; Denmark, Italy and Slovakia, 2002.
(5) Germany, France, Austria and Slovakia, 1999; Lithuania and Hungary, 1998; Estonia and Romania, 1997; Bulgaria, Poland and the United Kingdom, 1996.
(6) The Netherlands, 2004; Ireland, France and Finland, 2003; Denmark, Italy and Slovakia, 2002; the Czech Republic, 2001; Slovenia, 1999.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT5)

In 2005, there were approximately 310 000 food and beverage (including animal feed products) manufacturing enterprises in the EU-27, providing employment to 4.7 million persons, and generating EUR 850 billion of turnover – see Table 3.2. France and Italy had the largest number of enterprises in this sector, followed at some distance by Germany, Spain and Poland. However, Germany had the largest workforce, followed by France and the United Kingdom (each accounted for over 10 % of the EU-27's workforce). While the same three Member States were largest in terms of turnover, a relatively high degree of turnover specialisation was observed in the Netherlands, Ireland and Belgium, as these Member States contributed far more to total EU-27 turnover than they did to the EU-27's workforce.

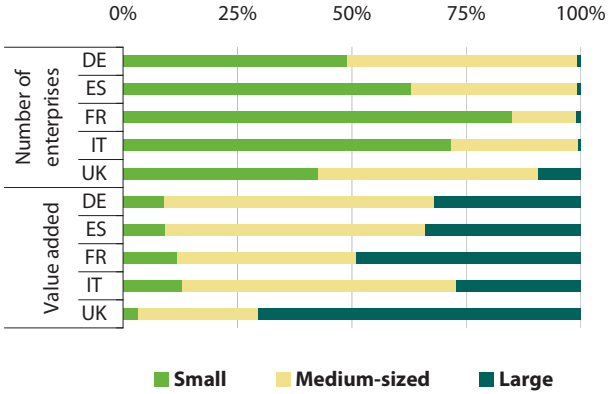
In terms of employment and turnover, the largest subsectors (based on the 3-digit level of NACE Rev. 1.1) were the manufacture of other food products (including, for example, bakery products, sugar, tea and coffee, and pasta) and meat and meat products manufacturing.

Table 3.3: Main structural indicators, EU-27, 2005

	Enterprises (units)	Persons employed (units)	Turnover (EUR million)
Food products and beverages	309 702	4 688 100	850 333
Meat & meat products	45 347	1 029 700	175 613
Fish & fish products	4 035	129 500	21 006
Fruit & vegetables	10 200	283 000	52 205
Vegetable & animal oil & fats	9 010	72 600	38 625
Dairy products	13 098	400 000	120 000
Grain mill & starch products	8 300	124 700	31 687
Other food products	191 909	2 000 000	230 000
Beverages	22 600	468 900	129 139

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT5)

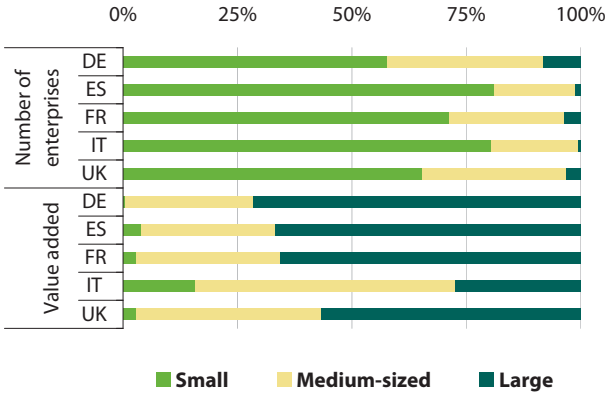
Figure 3.2: Number of enterprises and value added, breakdown by enterprise size class, production, processing and preserving of meat and meat products, 2005 (1)
(% of total)



(1) Small enterprises: 1-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.

Source: Eurostat (Structural business statistics: SBS_SC_2D_DADE02)

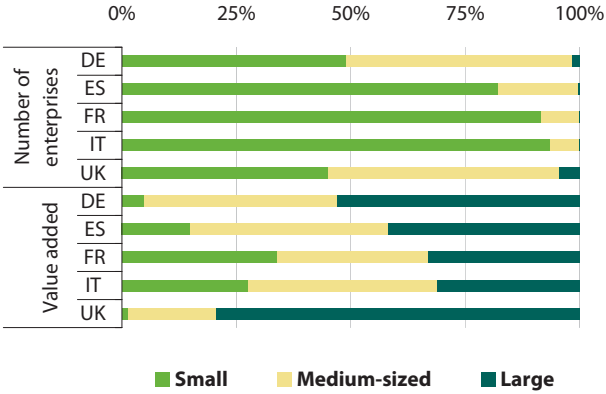
Figure 3.3: Number of enterprises and value added, breakdown by enterprise size class, manufacture of dairy products, 2005 (1)
(% of total)



(1) Small enterprises: 1-19 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.

Source: Eurostat (Structural business statistics: SBS_SC_2D_DADE02)

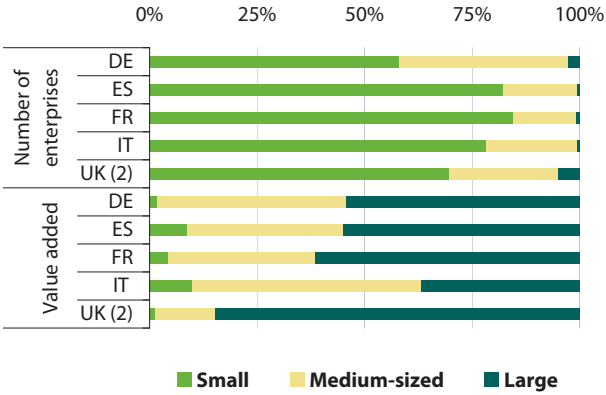
Figure 3.4: Number of enterprises and value added, breakdown by enterprise size class, manufacture of other food products, 2005 (1)
(% of total)



(1) Small enterprises: 1-19 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.

Source: Eurostat (Structural business statistics: SBS_SC_2D_DADE02)

Figure 3.5: Number of enterprises and value added, breakdown by enterprise size class, manufacture of beverages, 2005 (1)
(% of total)



(1) Small enterprises: 1-19 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) 2004.

Source: Eurostat (Structural business statistics: SBS_SC_2D_DADE02)

One particular category of special products that has received a lot of attention is organic produce, and it is widely accepted that the market share of organic produce has increased. Eurostat provides data for the vast majority of EU Member States on the prevalence of organic operators, including producers, processors and importers (see previous Chapter for more information on organic producers). Focusing on the processing stage, by far the largest number of organic operators were located in Italy (5 210), followed by France (3 750) and the United Kingdom (3 750); note that no data is available for Germany and several other Member States (see Table 3.4 for data availability).

An analysis based on Member States for which a full set of data is available in Table 3.4 shows that approximately half of the registered organic processors dealt with the miscellaneous category of other food products; the next most common product categories were fruit and vegetables, oils and fats, and meat and meat products.

Table 3.4: Number of registered organic operators processing products from organic farming, 2006
(units)

	Meat & meat products	Fruit & vege-tables	Oils & fats	Dairy products	Grain mill products	Other food products
BE (1)	62	74	9	35	45	300
BG	:	:	:	:	:	:
CZ	28	24	0	12	11	83
DK	51	27	6	42	13	50
DE	:	:	:	:	:	:
EE	1	5	1	2	3	2
IE	:	:	:	:	:	:
EL	40	182	502	44	30	306
ES	125	440	239	51	:	896
FR	387	469	46	165	195	3 190
IT	296	1 022	1 450	329	284	1 829
CY	:	:	:	:	:	:
LV	2	3	:	2	:	3
LT	1	:	:	4	3	12
LU	:	:	:	:	:	:
HU	:	:	:	:	:	:
MT	0	0	3	0	0	0
NL (1)	2	34	7	0	22	32
AT (1)	172	46	:	:	:	:
PL	:	:	:	:	:	:
PT	:	:	:	:	:	:
RO	:	1	3	5	:	28
SI	:	:	:	:	:	:
SK	2	4	0	3	6	19
FI	1	1	0	1	1	0
SE	35	54	20	8	21	48
UK	525	532	34	183	238	2 238

(1) 2005.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT3)

External trade

The EU-27 was a net importer of food products (including coffee, tea and cocoa) in 2007, the trade deficit for these products totalling EUR 25.1 billion in value, and around 23.3 million tonnes in quantity. Figures 3.6 to 3.27 provide an analysis of the EU-27's imports of ten categories of foodstuffs: for each of these an analysis is provided for the quantity of imports between 2000 and 2007 (note that the scales of the graphs vary considerably) as well as a comparison of the change in origin of these imports.

Imports of cereals jumped from 11.7 million tonnes in 2006 to 22.3 million tonnes in 2007, mainly due to an increase in maize imports. The rise in 2007 reversed the downward trend that had developed since 2002. By 2007 Brazil had established itself as the main source of EU-27 imports of cereals, providing more than 30 % of the total, whereas in 2000 it had not even been in the top five suppliers.

The quantity of imports of meat and meat preparations rose each year between 2000 and 2006, before dropping 6.6 % in 2007. During the period 2000 to 2007, overall imports rose fastest for fresh or chilled meat from cattle (bovines) and for meat from pigs (swine), although imports of pig meat fell considerably in 2007. The EU-27 also recorded a large reduction in imports of frozen meat from cattle, and of poultry meat in 2007. Brazil provided more than half of the EU-27's meat imports in 2007, while New Zealand's share was down to 14 %.

Between 2000 and 2007, EU-27 imports of fish and seafood rose in quantity terms by an average of 4.2 % per annum, with increases registered in five out of seven years; seafood (crustaceans) and processed fish (fish fillets and other fish meat) recorded large increases. In 2007, Norway was the single biggest supplier of fish and seafood to the EU-27, with China second, and the United States and Vietnam moving into the top five.

The quantity of imports of dairy products and eggs fell on average by 3.0 % per annum between 2000 and 2007. Despite New Zealand's share of EU-27 imports of dairy products and eggs increasing from 30 % to 33 % between 2000 and 2007 it was toppled from its place as the main origin of EU-27 imports for these products, being replaced by Switzerland (whose share doubled to 38 % over the period considered).

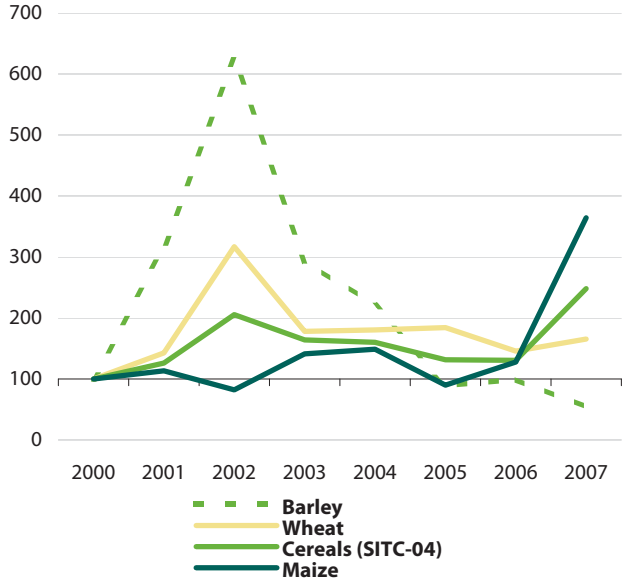
Imports of fresh, chilled or frozen vegetables were relatively unstable between 2000 and 2007, falling through to 2003, bouncing back in 2004, before repeating this pattern of decline followed by recovery in 2007 – see Figure 3.14. In 2007, Thailand was the main source of EU-27 imports of fresh, chilled or frozen vegetables, although its share had more than halved from 53 % in 2000 to 23 % by 2007. In contrast, imports of prepared or preserved vegetables increased between 2000 and 2007, despite declining in 2005 and 2006 – see Figure 3.16. China and Turkey together provided around three fifths of the EU-27's imports of prepared or processed vegetables in 2007. EU-27 imports of fruit and nuts increased each and every year between 2000 and 2007, averaging growth of 4.6 % per annum. The main suppliers remained relatively unchanged between 2000 and 2007 – see Figure 3.19. Preserved and prepared fruits and nuts also recorded unbroken growth between 2000 and 2007 – see Figure 3.20 – with average growth of 6.0 % per annum. Thailand remained the principal origin of these imports in 2007, marginally ahead of China whose share rose from 6 % in 2000 to 16 % by 2007.

The quantity of sugar (and sugar preparations and honey) imports fluctuated within a relatively narrow range between 2000 and 2007. Imports of molasses fell sharply in 2005, but recovered in 2007, whereas sugar cane and beet increased over the period studied, despite falls in 2003 and 2007. By 2007, India had replaced Pakistan as the main source of EU-27 sugar imports, with the latter dropping to fourth place.

Imports of coffee, tea and cocoa increased in six out of seven years between 2000 and 2007, falling only in 2002, and the origin of these imports did not change greatly between 2000 and 2007.

As noted earlier, the EU-27 was a net importer of foodstuffs in 2007, although for some individual categories of foodstuffs it was a net exporter as can be seen from Tables 3.5 and 3.6. The biggest trade surplus, in quantity and value terms, was for dairy products and eggs; in value terms trade surpluses were also recorded for cereals, and for prepared or preserved vegetables.

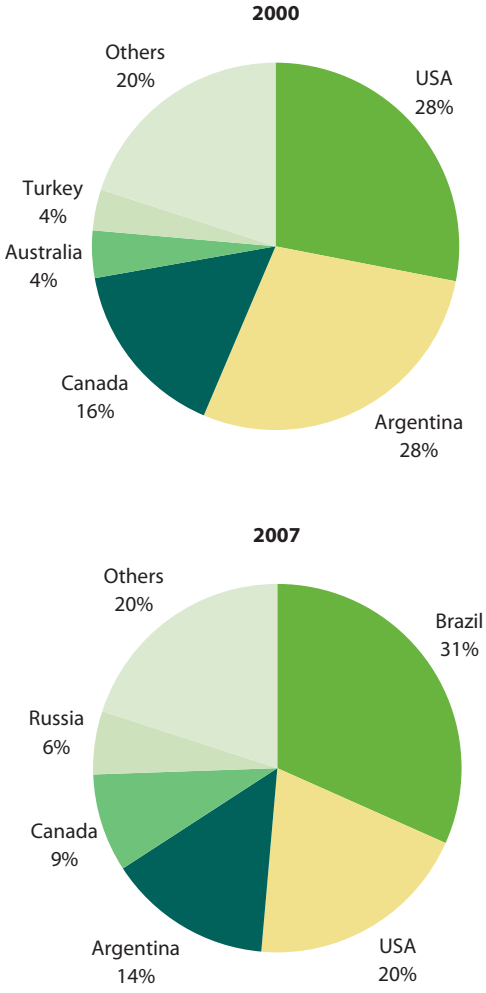
Figure 3.6: Volume of extra EU-27 imports of cereals and cereal preparations, EU-27
(2000=100)



(million tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Cereals & cereal prep.	9.0	11.3	18.4	14.7	14.4	11.8	11.7	22.3
Maize	2.9	3.3	2.4	4.1	4.3	2.6	3.7	10.6
Wheat & meslin	3.9	5.5	12.2	6.9	7.0	7.1	5.6	6.4
Barley	0.2	0.7	1.5	0.7	0.5	0.2	0.2	0.1

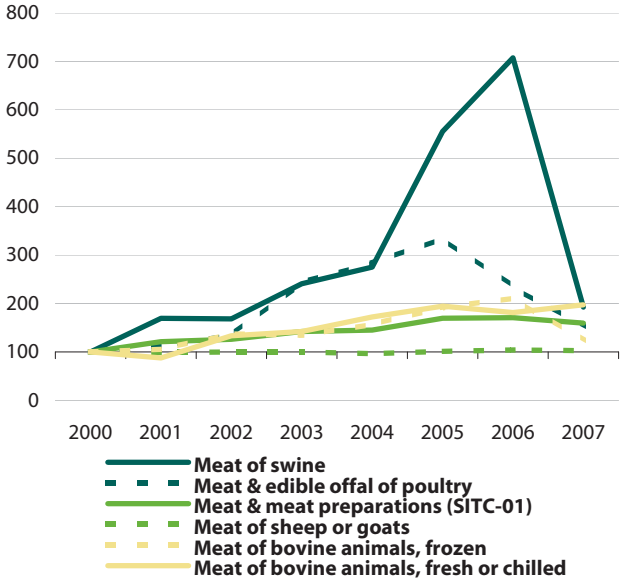
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.7: Origin of extra EU-27 imports, cereals and cereal preparations, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

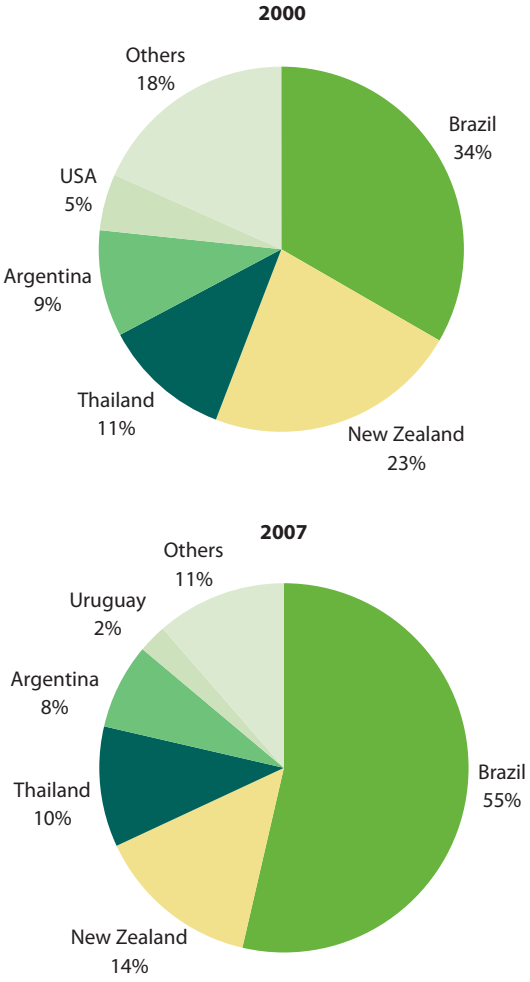
Figure 3.8: Volume of extra EU-27 imports of meats and meat preparations, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Meat & meat preparations	980	1 188	1 236	1 394	1 423	1 662	1 674	1 563
Meat of sheep or goats, fresh, chilled or frozen	218	216	218	218	210	221	227	224
Meat & edible offal of poultry, fresh, chilled or frozen	129	146	173	314	366	432	303	197
Meat of bovine animals, fresh, chilled	87	76	117	124	150	170	158	172
Meat of bovine animals, frozen	102	108	140	137	160	196	215	126
Meat of swine, fresh, chilled or frozen	13	23	23	32	37	75	95	26

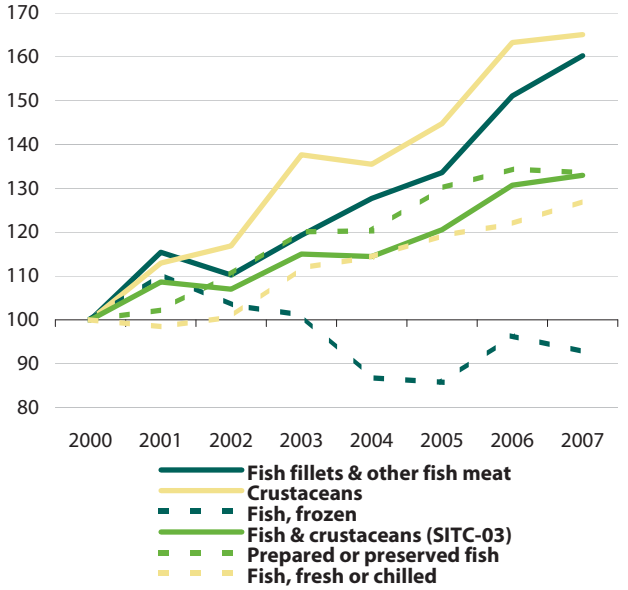
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.9: Origin of extra EU-27 imports, meat and meat preparations, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

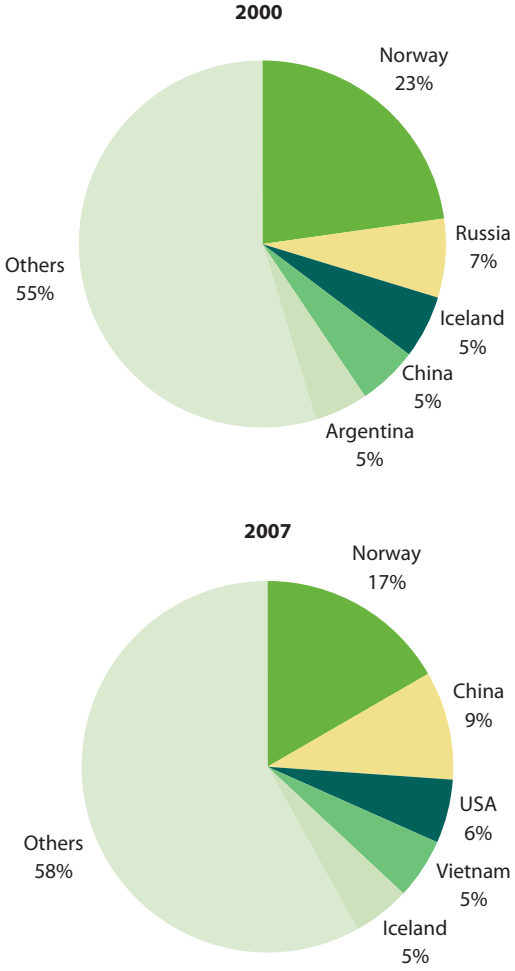
Figure 3.10: Volume of extra EU-27 imports of fish, crustaceans and molluscs, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Fish & crustaceans	3 747	4 071	4 009	4 309	4 288	4 517	4 897	4 982
Fish fillets & other fish meat, fresh, chilled or frozen	848	979	935	1 012	1 083	1 133	1 281	1 359
Fish, fresh or chilled (excl. fish fillets)	577	568	581	645	659	688	703	733
Fish, frozen	744	822	770	752	646	638	717	690
Prepared or preserved fish; caviar & caviar substitutes	528	540	583	634	635	687	710	705
Crustaceans, live, fresh, chilled, frozen, dried or salted	324	366	379	446	439	469	529	535

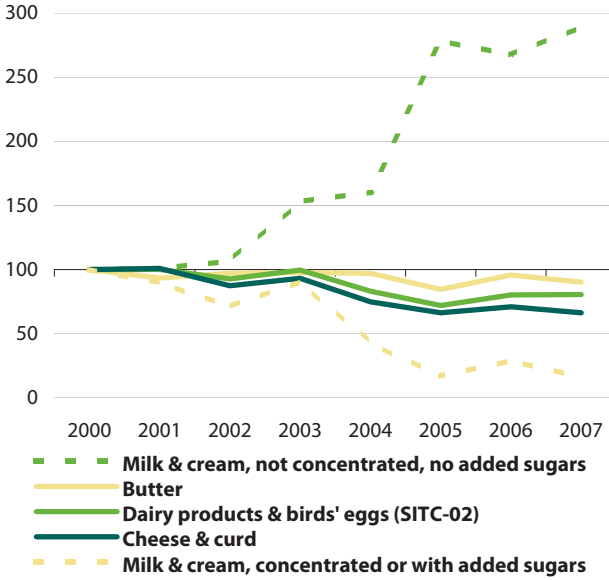
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.11: Origin of extra EU-27 imports, fish, crustaceans and molluscs, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

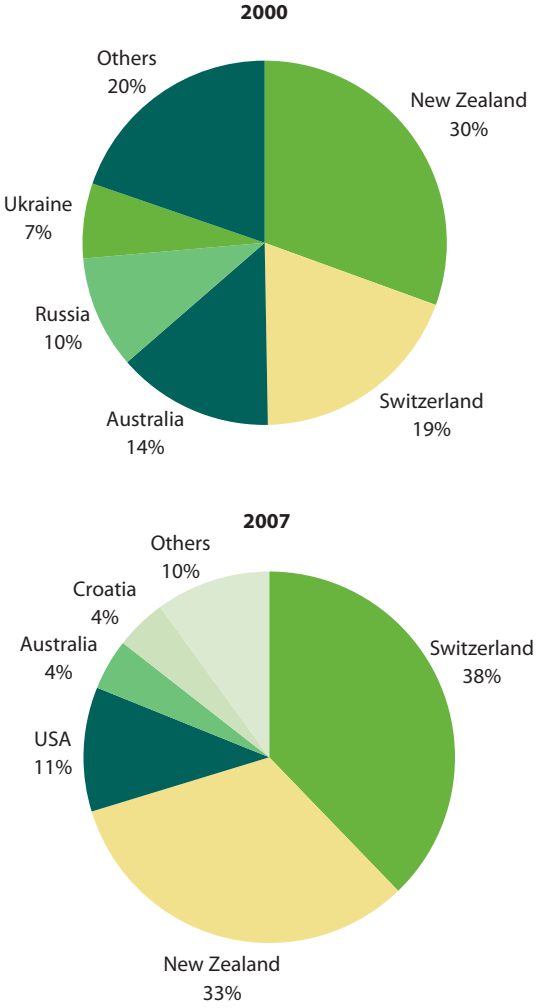
Figure 3.12: Volume of extra EU-27 imports of dairy products and birds' eggs, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Dairy products & birds' eggs	402	403	373	401	335	290	323	324
Cheese & curd	142	143	124	132	106	94	101	94
Butter	94	88	92	92	92	80	90	85
Milk & cream, not concentrated or contain. added sugar or other sweet. matter	5	6	6	8	9	15	15	16
Milk & cream, concentrated or contain. added sugar or sweet. matter	84	75	60	76	36	14	24	13

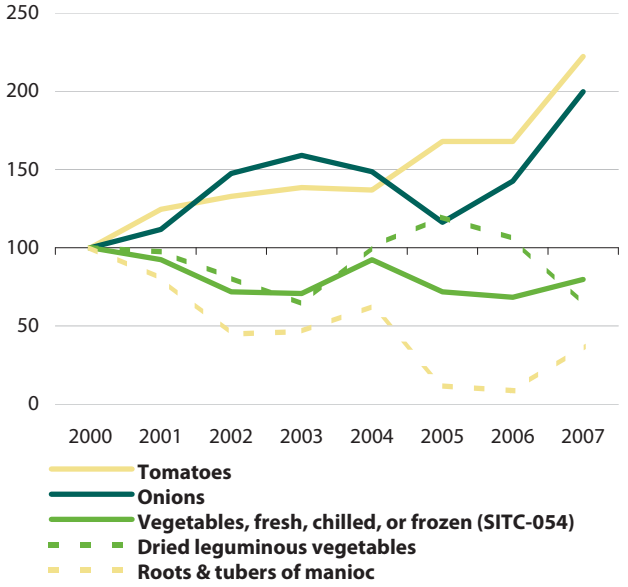
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.13: Origin of extra EU-27 imports, dairy products and birds' eggs, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

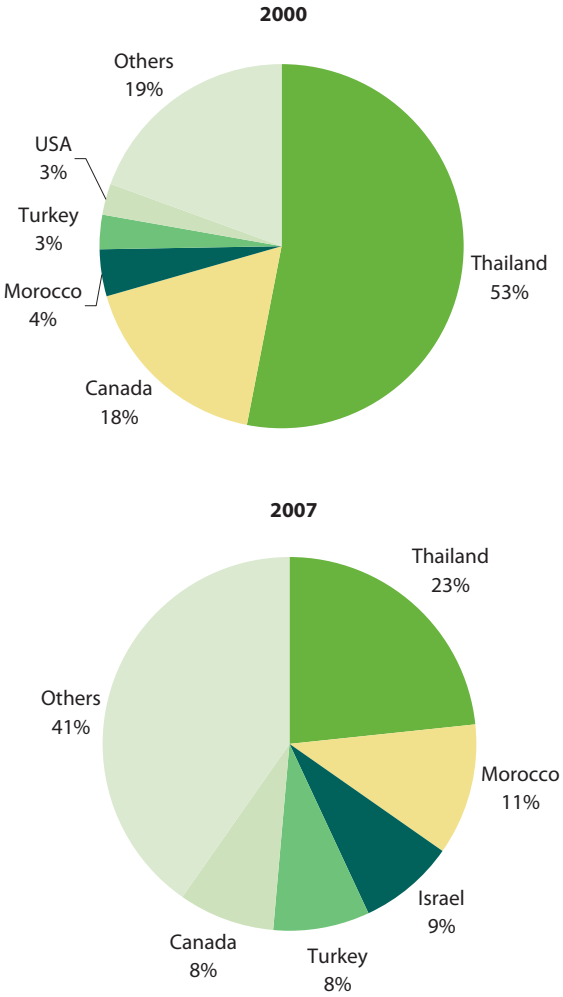
Figure 3.14: Volume of extra EU-27 imports of fresh, chilled or frozen vegetables, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Vegetables, fresh, chilled, frozen or simply preserved	6 772	6 254	4 865	4 790	6 253	4 861	4 626	5 398
Roots & tubers of manioc, fresh, chilled, frozen or dried	3 639	2 921	1 631	1 689	2 280	426	313	1 345
Dried leguminous vegetables	1 722	1 677	1 390	1 102	1 733	2 059	1 823	1 097
Onions, shallots, garlic, leeks & other alliaceous vegetables, fresh or chilled	273	305	402	434	405	317	389	545
Tomatoes, fresh or chilled	211	263	281	293	289	355	355	470

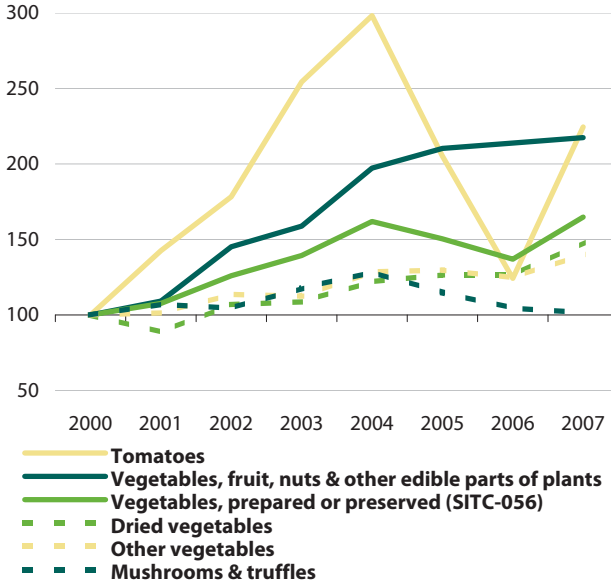
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.15: Origin of extra EU-27 imports, fresh, chilled or frozen vegetables, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

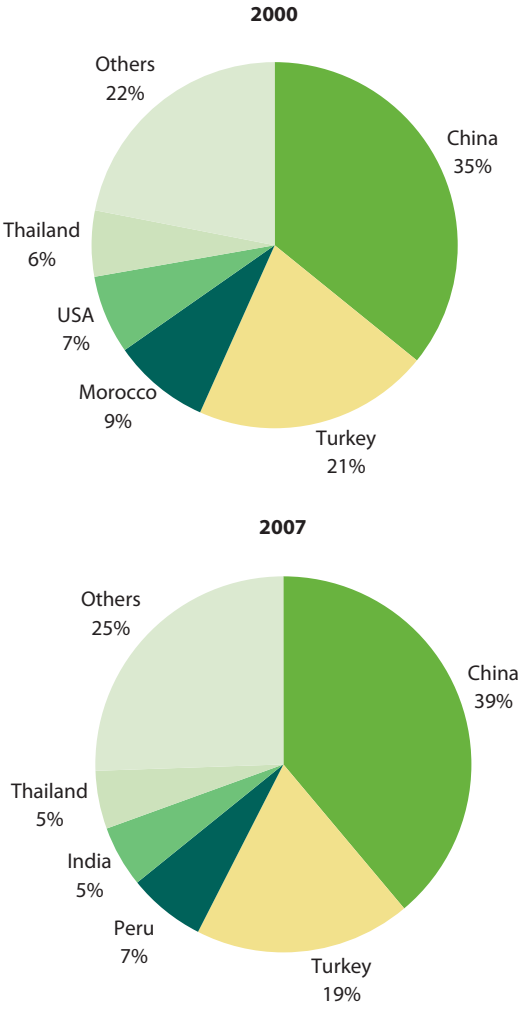
Figure 3.16: Volume of extra EU-27 imports of prepared or preserved vegetables, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Vegetables, roots & tubers, prep. or preserv. n.e.s.	778	838	981	1 085	1 260	1 171	1 066	1 283
Vegetables other than tomatoes, mushrooms & truffles	374	379	425	421	481	485	466	524
Vegetables, fruit, nuts & other edible parts of plants	129	141	188	206	255	272	277	282
Tomatoes, prep. or preserv.	110	156	196	279	327	225	136	246
Dried vegetables (not further prep.)	81	72	86	88	99	102	102	120
Mushrooms & truffles, prep. or preserv.	56	59	58	65	71	64	58	56

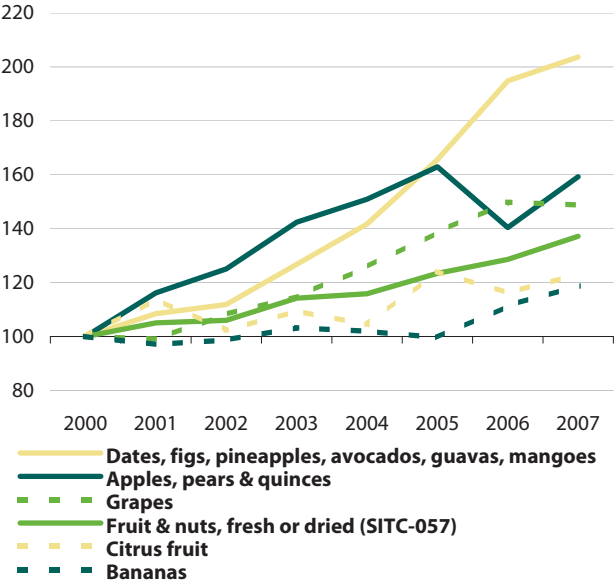
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.17: Origin of extra EU-27 imports, prepared or preserved vegetables, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

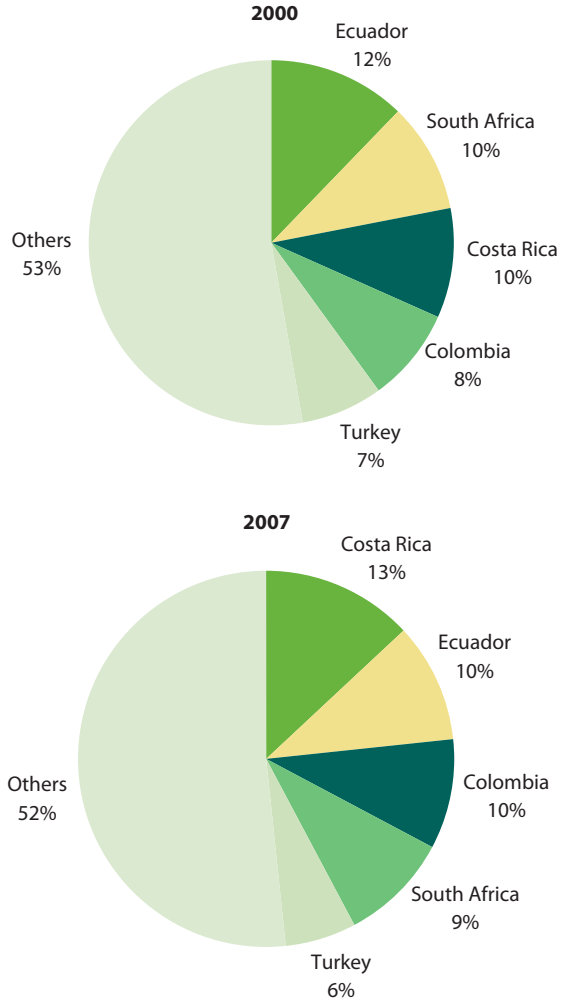
Figure 3.18: Volume of extra EU-27 imports of fruit and nuts, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Fruit & nuts (not incl. oil nuts), fresh or dried	9 124	9 585	9 673	10 421	10 572	11 261	11 732	12 515
Bananas	3 998	3 880	3 947	4 128	4 075	3 983	4 453	4 750
Citrus fruit	1 757	2 000	1 797	1 924	1 834	2 181	2 041	2 164
Dates, figs, pineapples, avocados, guavas, mangoes	653	708	730	827	925	1 081	1 272	1 330
Apples, pears & quinces	824	958	1 031	1 174	1 244	1 343	1 157	1 313
Grapes	629	623	680	722	790	872	942	935

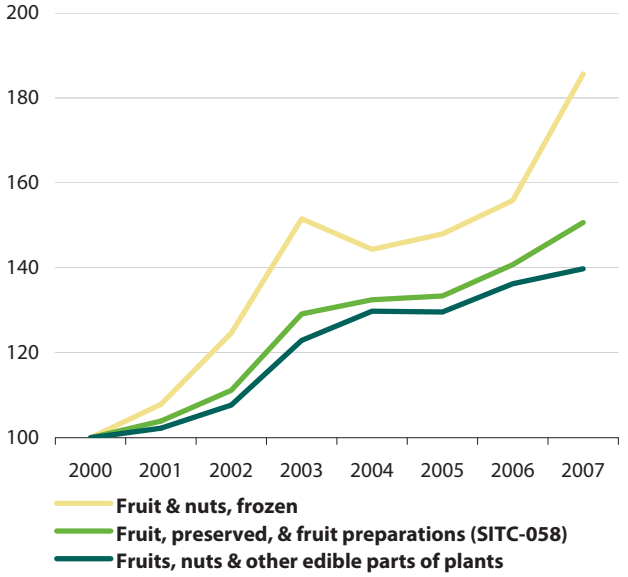
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.19: Origin of extra EU-27 imports, fruit and nuts, EU-27 (% of total)



Source: Eurostat (External trade data - by SITC)

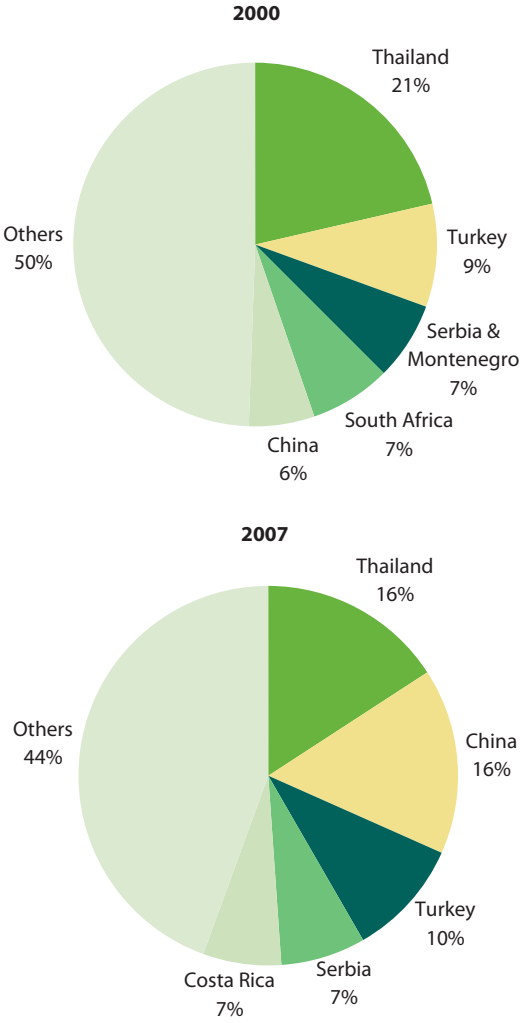
Figure 3.20: Volume of extra EU-27 imports of preserved fruit and fruit preparations, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Fruit, preserv. & fruit prep's	1 089	1 131	1 210	1 406	1 442	1 452	1 532	1 640
Fruits, nuts & other edible parts of plants, prep. or preserv.	817	836	880	1 005	1 061	1 059	1 114	1 143
Fruit & nuts, frozen	239	258	298	362	345	354	373	444

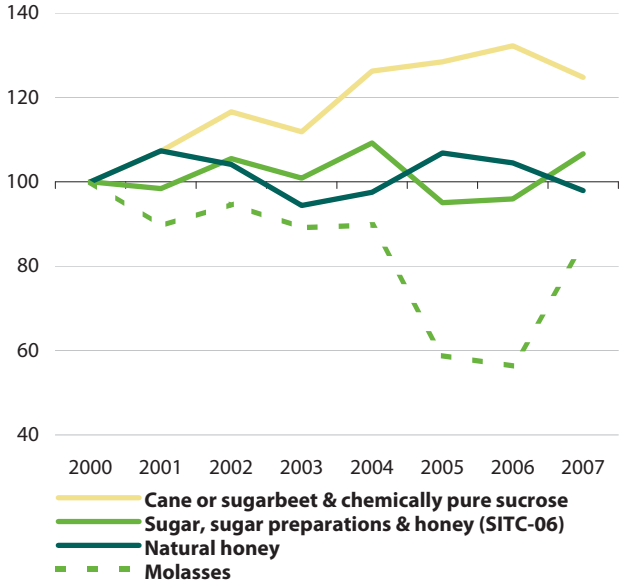
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.21: Origin of extra EU-27 imports, preserved fruit and fruit preparations, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

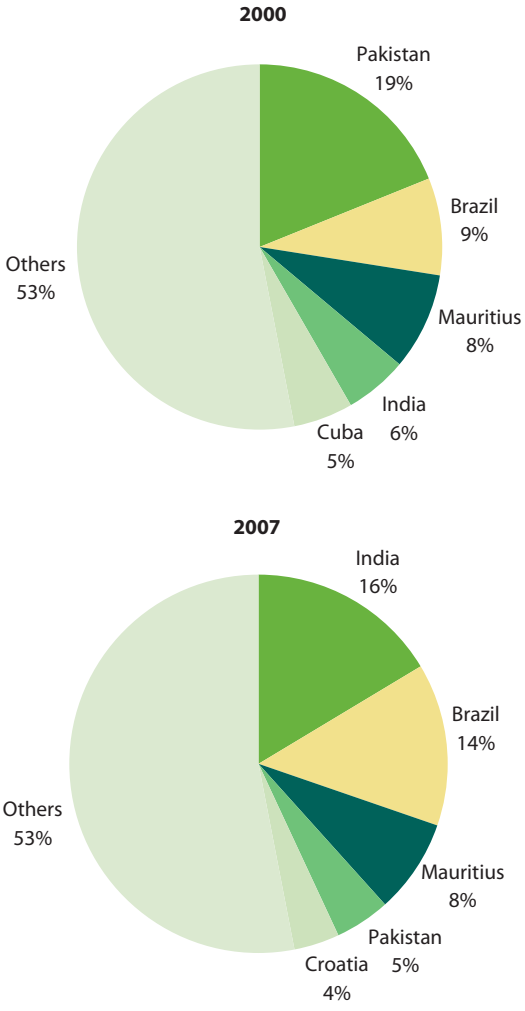
Figure 3.22: Volume of extra EU-27 imports of sugar and sugar preparations, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Sugar, sugar prep's & honey	5 447	5 359	5 746	5 495	5 948	5 177	5 226	5 809
Cane or beet sugar & chemically pure sucrose	2 472	2 651	2 882	2 765	3 121	3 175	3 269	3 084
Molasses	2 730	2 444	2 585	2 433	2 451	1 606	1 537	2 320
Natural honey	130	139	135	122	126	138	135	127

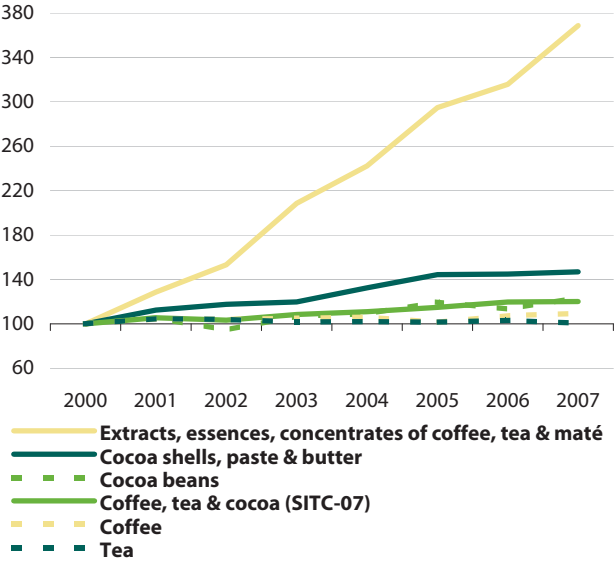
Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.23: Origin of extra EU-27 imports, sugar and sugar preparations, EU-27
(% of total)



Source: Eurostat (External trade data - by SITC)

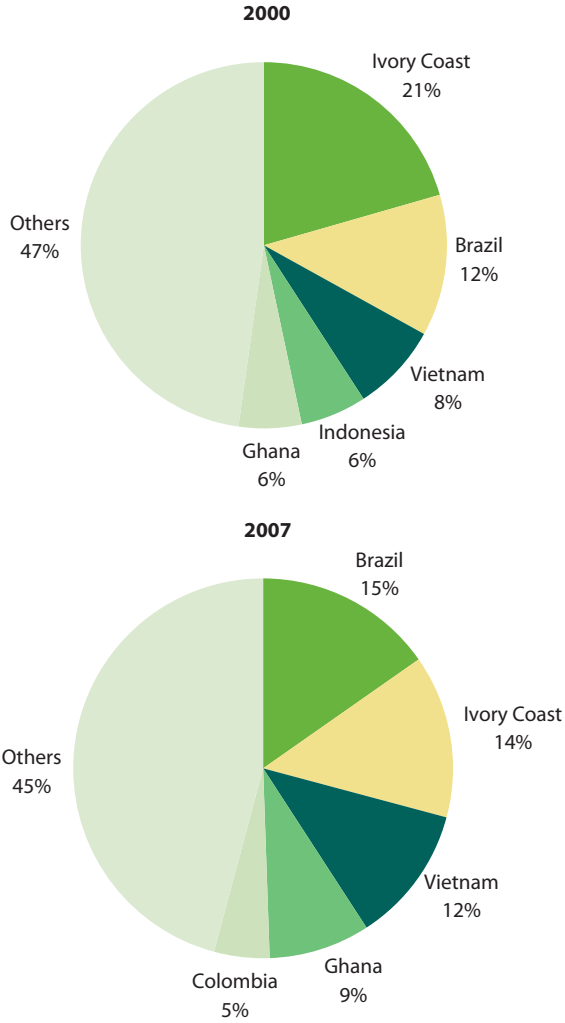
Figure 3.24: Volume of extra EU-27 imports of coffee, tea and cocoa, EU-27
(2000=100)



(1 000 tonnes)	2000	2001	2002	2003	2004	2005	2006	2007
Coffee, tea & cocoa	4 535	4 785	4 685	4 919	5 032	5 209	5 427	5 447
Coffee & coffee substitutes	2 497	2 608	2 598	2 622	2 648	2 531	2 683	2 731
Cocoa beans	1 178	1 241	1 112	1 261	1 284	1 409	1 334	1 457
Tea	267	279	277	271	272	271	275	268
Cocoa paste	155	175	163	157	172	196	189	186
Extracts, essences, concentrates of coffee, tea & maté	50	64	76	104	121	147	157	184
Cocoa butter	89	90	117	134	135	140	148	159
Cocoa shells	9	20	18	13	28	29	29	28

Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.25: Origin of extra EU-27 imports, coffee, tea and cocoa, EU-27
(% of total)



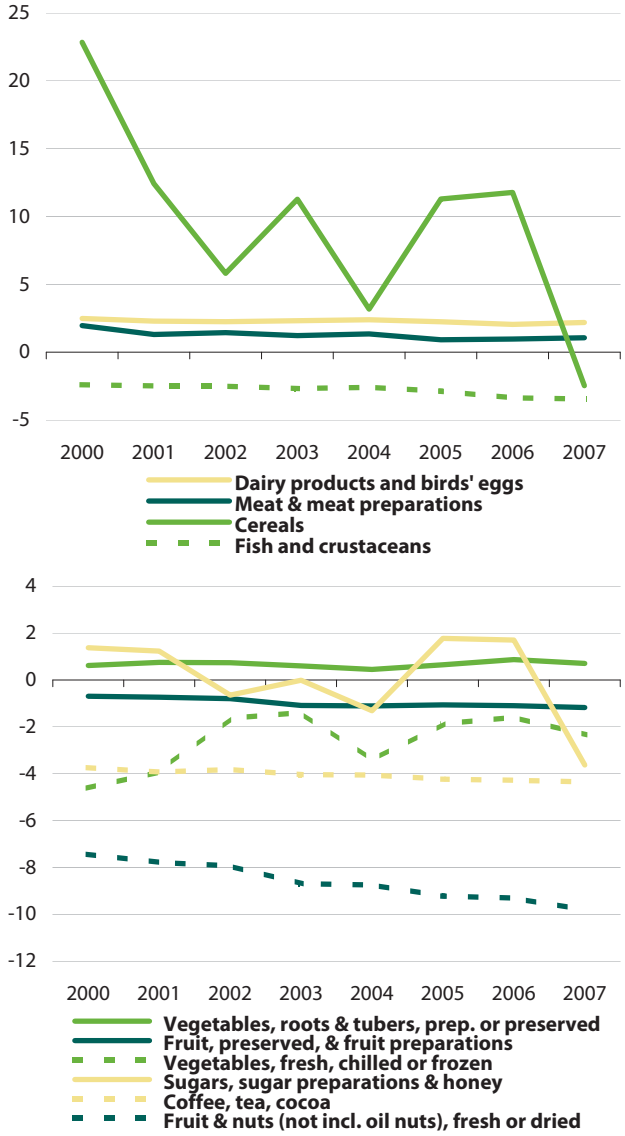
Source: Eurostat (External trade data - by SITC)

Table 3.5: Volume of extra EU-27 trade, EU-27, 2007 (1 000 tonnes)

	Imports	Exports	Net trade
Meat & meat preparations (SITC-01)	1 563	2 624	1 061
Bovine meat, fresh, chilled	172	46	-127
Swine meat, fresh, chilled, frozen	26	904	878
Sheep or goat meat, fresh, chilled, frozen	224	5	-219
Meat & edible offal of poultry, fresh, chilled, frozen	197	754	556
Dairy products & birds' eggs (SITC-02)	324	2 512	2 188
Milk & cream, concentrated or cont. added sugar	13	794	781
Cheese & curd	94	594	500
Fish & crustaceans (SITC-03)	4 982	1 531	-3 452
Fish, fresh or chilled (excl. fish fillets)	733	75	-658
Fish fillets & other fish meat, fresh, chilled, frozen	1 359	41	-1 319
Cereals (SITC-04)	22 260	19 794	-2 467
Wheat	6 378	8 440	2 062
Barley	126	4 892	4 767
Maize	10 604	712	-9 892
Vegetables, fresh, chilled or frozen (SITC-054)	5 398	3 058	-2 340
Dried leguminous vegetables	1 097	515	-582
Roots & tubers of manioc	1 345	1	-1 344
Veg., roots, tubers, prep. or preserv. (SITC-056)	1 283	1 987	704
Vegetables, fruit, nuts & other edible parts	282	87	-194
Tomatoes (other than by vinegar or acetic acid)	246	710	463
Fruit & nuts, fresh or dried (SITC-057)	12 515	2 699	-9 816
Bananas	4 750	10	-4 740
Citrus fruit	1 330	77	-1 253
Dates, figs, pineapples, avocados, guavas, mangoes	2 164	675	-1 489
Fruit, preserv. & fruit prep. (SITC-058)	1 640	465	-1 176
Fruits, nuts & other edible parts, prep. or preserv.	1 143	262	-880
Sugars, sugar prep. & honey (SITC-06)	5 809	2 181	-3 627
Cane or beet sugar & chemically pure sucrose	3 084	1 496	-1 588
Molasses	2 320	15	-2 305
Coffee, tea, cocoa (SITC-07)	5 447	1 097	-4 350
Coffee	2 731	175	-2 557
Tea	268	29	-239
Cocoa beans	1 457	4	-1 453

Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.26: Volume of extra EU-27 net trade in selected agri-food products, EU-27
(million tonnes)



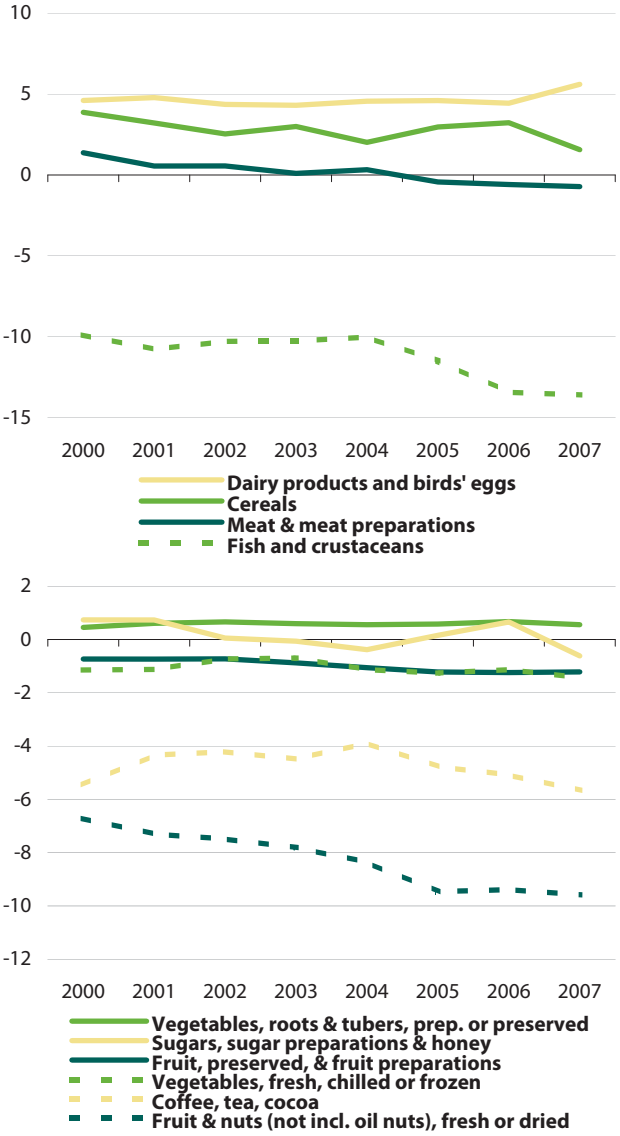
Source: Eurostat (External trade data - by SITC)

Table 3.6: Value of extra EU-27 trade, EU-27, 2007 (EUR million)

	Imports	Exports	Net trade
Meat & meat preparations (SITC-01)	4 935	4 218	-716
Bovine meat, fresh, chilled	1 121	128	-993
Swine meat, fresh, chilled, frozen	73	1 989	1 916
Sheep or goat meat, fresh, chilled, frozen	968	21	-947
Meat & edible offal of poultry, fresh, chilled, frozen	345	718	373
Dairy products & birds' eggs (SITC-02)	745	6 344	5 598
Milk & cream, concentrated or cont. added sugar	28	1 983	1 955
Cheese & curd	407	2 431	2 024
Fish & crustaceans (SITC-03)	16 075	2 494	-13 582
Fish, fresh or chilled (excl. fish fillets)	2 338	386	-1 953
Fish fillets & other fish meat, fresh, chilled, frozen	4 254	198	-4 057
Cereals (SITC-04)	5 163	6 721	1 558
Wheat	1 479	1 585	106
Barley	22	952	930
Maize	1 887	210	-1 677
Vegetables, fresh, chilled or frozen (SITC-054)	3 431	1 996	-1 435
Dried leguminous vegetables	557	159	-397
Roots & tubers of manioc	224	1	-222
Veg., roots, tubers, prep. or preserv. (SITC-056)	1 445	2 001	556
Vegetables, fruit, nuts & other edible parts	209	115	-94
Tomatoes (other than by vinegar or acetic acid)	127	476	348
Fruit & nuts, fresh or dried (SITC-057)	11 722	2 135	-9 586
Bananas	2 742	9	-2 732
Citrus fruit	1 344	450	-895
Dates, figs, pineapples, avocados, guavas, mangoes	1 195	90	-1 105
Fruit, preserv. & fruit prep. (SITC-058)	1 895	679	-1 215
Fruits, nuts & other edible parts, prep. or preserv.	1 228	353	-875
Sugars, sugar prep. & honey (SITC-06)	2 178	1 562	-616
Cane or beet sugar & chemically pure sucrose	1 374	515	-859
Molasses	206	2	-204
Coffee, tea, cocoa (SITC-07)	9 691	4 028	-5 663
Coffee	4 816	638	-4 179
Tea	474	235	-239
Cocoa beans	2 098	6	-2 092

Source: Eurostat (External trade data - by SITC and CN8)

Figure 3.27: Value of extra EU-27 net trade in selected agri-food products, EU-27
(EUR billion)



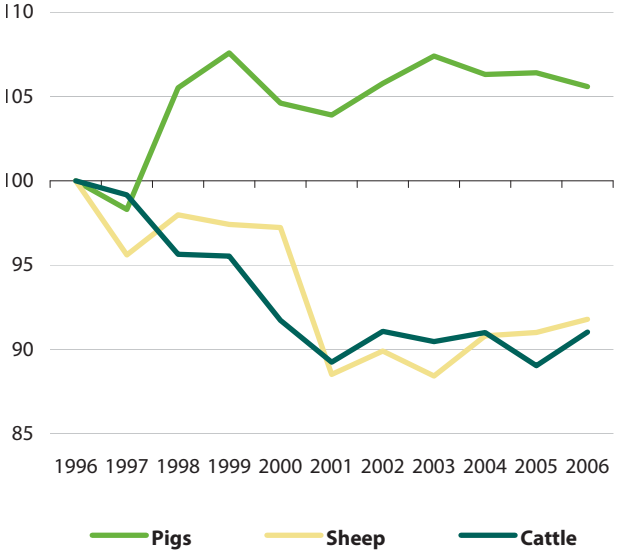
Source: Eurostat (External trade data - by SITC)

Quantity of output

The quantity of meat production within the EU-27 has been relatively stable since 2001 in comparison to the decline recorded between 1996 and 2001 in the slaughtering of sheep and cattle, and the rise in pig slaughtering. In 2006 around 21.8 million tonnes of pigs were slaughtered across the EU, far ahead of cattle (8.3 million tonnes) and sheep (1.1 million tonnes).

The largest producers of pig meat were Germany, Spain, France, Poland and Denmark. Only in Ireland, the United Kingdom and Slovenia was meat production from cattle higher than from pigs, while the meat production levels from pigs and cattle were very similar in Luxembourg and Romania. Production of meat from sheep is more concentrated than that from pigs or cattle, with the United Kingdom and Spain together responsible for half of the EU-27 output. Production of meat from goats or horses is even more concentrated, with goat meat production concentrated in several southern Member States, and horse meat production concentrated in Italy, Poland, France and Spain.

Figure 3.28: Slaughtered production, EU-27 (1996=100, based on tonnes of carcass weight)



Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR2)

No EU-27 total is available for poultry meat production, but from the incomplete data it is clear that the volume of slaughtered meat was higher than that from cattle. France, the United Kingdom, Spain, Poland and Germany all recorded poultry meat production in excess of 1 million tonnes.

Table 3.7: Slaughtered production, 2006
(1 000 tonnes of carcass weight)

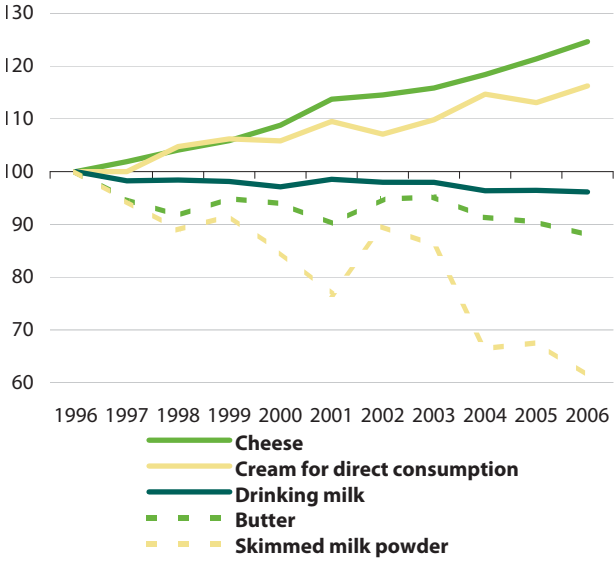
	Cattle	Pigs	Sheep	Goats	Horses	Poultry (1)
EU-27	8 251	21 791	1 086	78	70	:
BE	269	1 006	1	0	3	:
BG	23	75	18	6	0	100
CZ	80	359	2	0	0	231
DK	129	1 749	2	0	0	170
DE	1 193	4 662	43	0	3	1 009
EE	14	35	1	0	0	13
IE	572	209	70	0	0	130
EL	61	123	75	39	0	154
ES	671	3 230	227	12	5	1 257
FR	1 510	2 263	121	8	6	1 722
IT	1 111	1 556	59	3	41	628
CY	4	53	3	4	0	27
LV	21	38	0	0	0	21
LT	47	106	0	0	0	66
LU	9	10	0	0	0	0
HU	34	489	1	0	0	385
MT	1	8	0	0	0	4
NL	384	1 265	16	0	0	661
AT	215	505	0	0	0	102
PL	355	2 071	1	0	10	1 058
PT	105	339	12	1	0	247
RO	313	316	99	:	:	:
SI	38	34	0	0	0	48
SK	21	122	1	0	0	94
FI	87	208	1	0	0	87
SE	137	264	4	0	1	102
UK	847	697	330	0	0	1 517

(1) Bulgaria, 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_IN_PAGR2)

EU output of dairy products in the ten years from 1996 to 2006 shows a clear pattern of growth for cheese and cream, moderate falls for milk and butter, and a sharper decline for skimmed milk powder. The total quantity of cows' milk collected in the EU in 2006 was 132.6 million tonnes. Germany, France and the United Kingdom were the only Member States to record a double digit share of the EU's collected milk, with a combined share of 48 %. The United Kingdom (6.8 million tonnes) reported the largest quantity of drinking milk production ahead of Germany (5.9 million tonnes). Germany was the largest producer of cheese, just under 2 million tonnes, while France and Italy also produced more than 1 million tonnes of cheese. Among smaller Member States, Irish butter production was notably high, as was Dutch cheese production.

Figure 3.29: Production of milk products, EU average (1) (1996=100, based on tonnes)



(1) EU average based on available information for the same group of Member States across all years; the composition of this EU average may vary between products.

Source: Eurostat (Agricultural products statistics, APRO_MK_POBTA)

Table 3.8: Cows' milk collected and products obtained, 2006 (1 000 tonnes)

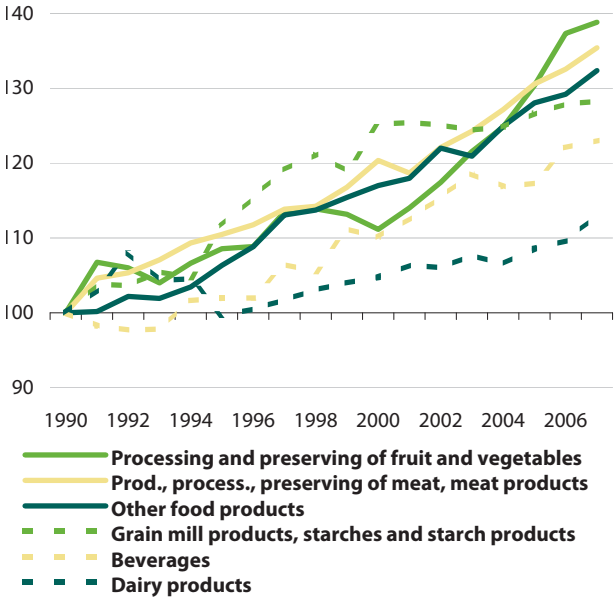
	Cows' milk collected	Drinking milk	Cream for direct consumption	Skimmed milk powder	Butter	Cheese
EU-27	132 589	32 463	2 513	868	1 758	8 670
BE	2 837	638	137	65	18	67
BG	839	50	2	:	1	87
CZ	2 393	601	40	20	33	119
DK	4 492	468	56	21	38	336
DE	26 876	5 923	696	197	384	1 995
EE	606	83	27	7	4	33
IE	5 234	540	22	69	139	:
EL	670	435	9	:	1	154
ES	5 824	3 530	76	1	38	308
FR	22 892	3 736	347	184	325	1 858
IT	10 193	2 884	130	0	:	1 154
CY	139	79	4	0	0	12
LV	592	120	28	:	:	32
LT	1 296	90	18	11	12	101
LU	255	:	:	:	:	:
HU	1 399	480	9	0	3	70
MT	41	29	0	:	:	3
NL	10 657	778	44	45	125	714
AT	2 674	620	64	5	:	142
PL	8 826	1 338	241	123	120	580
PT	1 851	953	17	7	29	66
RO	1 133	174	39	3	7	71
SI	511	156	14	:	:	20
SK	962	236	34	6	7	47
FI	2 348	732	42	17	50	100
SE	3 130	947	90	13	26	119
UK	13 920	6 798	326	72	:	362

Source: Eurostat (Agricultural products statistics, APRO_MK_POBTA)

Figure 3.30 gives an aggregated analysis of production focused on particular food and beverage manufacturing activities, rather than agri-food products. All of the activities shown recorded long-term output growth over the period shown, with the highest overall growth recorded for the processing and preserving of fruit and vegetables, and the lowest growth for dairy products.

In contrast, Table 3.9 provides a snapshot of the level of sold production for a more detailed product analysis, limited to a selection of products. This data, from PRODCOM, shows the quantity of the sold output of several food products and beverages. Note that Table 3.11 (later in this chapter) shows a similar analysis from the same source for the value of sold production.

Figure 3.30: Production indices for selected agri-food products, EU-27
(1990=100)



Source: Eurostat (Short-term business statistics, EBT_INPR_AWD)

Table 3.9: Volume of sold production of selected agri-foodstuffs, EU-27, 2006

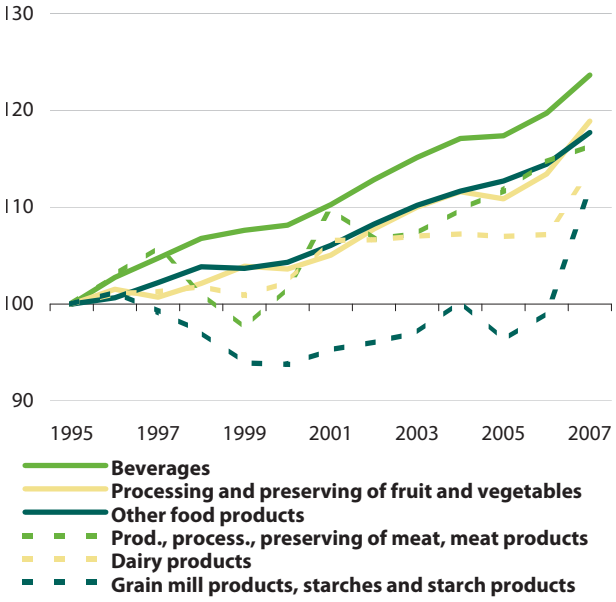
	(1 000 tonnes)
Preparations used for farm animal feeding (excluding premixtures): poultry	38 835
Refined white cane or beet sugar in solid form	19 271
Fresh bread containing by weight in the dry matter state <= 5% of sugars & <= 5% of fat	19 094
Preserved tomatoes; whole or in pieces	15 515
Cake and pastry products; other baker's wares with added sweetening matter	7 565
Grated; powdered; blue-veined & other non-processed cheese (excluding fresh cheese; whey cheese and curd)	5 436
Flavoured liquid yoghurt / acidified milk (curdled milk; cream; yoghurt & other fermented prod., with fruit; nuts or cocoa)	5 409
Sausages not of liver	4 967
Fresh or chilled cuts of beef and veal	2 619
Sweet biscuits (incl. sandwich biscuits; excl. chocolate coated or related)	2 468
Fruit, prepared or preserved, n.e.c. (excluding Muesli)	2 052
Sauces and prep's therefor, mixed condiments mixed seasonings (excl. soya sauce, tomato ketchup, other tomato sauces, mustard flour / meal & prepared mustard)	1 803
Roasted coffee, not decaffeinated	1 633
Virgin olive oil & its fractions (excl. chemically modified)	1 304
Vegetables, fruit, nuts & other edible parts of plants, prepared or preserved by vinegar or acetic acid	1 185
Fish fillets in batter or breadcrumbs including fish fingers	286
Smoked Pacific; Atlantic and Danube salmon (including fillets)	91
	(1 000 litres)
Mineral waters and aerated waters, unsweetened	48 030
Quality wine/grape must , v.q.p.r.d. of an alcoholic strength of =>15% excluding white wine and sparkling wine	2 576
Champagne (important: excluding alcohol duty)	244

Source: Eurostat (Statistics on the production of manufactured goods, PRODCOM)

Prices and turnover

Domestic output prices (as opposed to the consumer prices shown in Chapter 5) for food and beverage manufacturing activities are shown in Figure 3.31; as domestic price indices these show price developments on the domestic market, therefore excluding direct exports by producers. Some of these activities, for example beverages or the processing and preserving of fruit and vegetables, recorded relatively regular growth in output prices, while price developments for other activities, such as dairy products or meat and meat products, was less regular. The price development for grainmill products (and starches and starch products) was even less regular, with output prices initially falling, gently recovering, and then surging in 2007.

Figure 3.31: Domestic output price indices for selected agri-food products, EU-27
(1995=100)



Source: Eurostat (Short-term business statistics, EBT_INPP_A)

The overall value of sales (turnover) by different food and beverage processing subsectors can be seen in Table 3.10. The largest subsector was other food processing, which includes the manufacture of bread and confectionery products, sugar and chocolate, pasta, dietetic and baby food, as well as tea and coffee processing. Production, processing and preserving of meat and meat products was the next largest subsector at the level of analysis shown, followed by beverages and dairy products.

Table 3.10: Turnover of agri-food manufacturing enterprises, 2005
(EUR million)

	Meat & meat products	Fruit & vege-tables	Oils & fats	Dairy products	Other food prod. (1)	Bever-ages (2)
EU-27	175 613	52 205	38 625	*120 000*	*230 000*	129 139
BE	4 955	2 285	1 472	3 052	9 546	3 987
BG	557	219	279	207	696	600
CZ (3)	2 194	229	481	1 617	2 675	1 954
DK	5 308	645	459	:	3 804	1 534
DE	32 781	8 129	6 986	23 028	43 788	20 404
EE	173	36	:	306	179	212
IE	3 713	302	17	3 328	10 926	:
EL	772	1 021	894	1 773	3 222	1 649
ES	17 733	6 964	9 442	9 017	14 401	16 025
FR	34 744	7 090	:	24 059	37 516	20 942
IT	18 987	7 160	6 245	17 189	30 250	13 522
CY	275	61	37	179	336	248
LV	249	32	:	270	276	284
LT	414	36	9	518	441	332
LU	98	:	:	:	202	175
HU	2 576	759	534	986	2 025	1 689
MT	:	:	:	:	:	:
NL	8 267	3 256	:	7 220	13 596	3 857
AT	2 839	1 093	240	2 009	3 869	2 034
PL	8 629	2 982	677	4 690	7 918	5 211
PT	1 699	554	678	1 495	2 682	2 136
RO	1 463	224	414	628	2 029	1 842
SI	509	106	30	258	584	250
SK	556	:	125	439	804	521
FI	2 535	481	:	2 076	2 047	1 021
SE	3 417	970	598	2 616	3 617	1 803
UK	20 110	7 382	1 782	9 897	31 391	23 544

(1) Finland, 2004.
(2) Cyprus, 2004.
(3) 2004.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT5)

Selected production and external trade

Data on sold production of a wide range of industrial products are available from PRODCOM statistics. PRODCOM data originates from surveys of producers, and so concerns their sold production, and not the level of final sales to end consumers; producers' sales may be domestic or for export, and may be direct to industrial clients for further processing, to distributors, or directly to households. Table 3.11 provides a snapshot of the value of sold production for a small selection of food products and beverages; in the 2006 PRODCOM list there were over 320 food products (excluding animal feed and non-food products such as wool and waste) and over 30 headings for beverages and related products.

As well as providing the value of sold production, Table 3.11 also indicates the average price per unit (the unit value) for the selected products. For example, sold production of fresh bread in 2006 totalled EUR 23.2 billion, selling (from the producer) at an average of EUR 1.21 per kilogram. The lowest per kilogram price of the selected foods was for preserved tomatoes, 6 cents per kilogram from the producer. Among the three selected beverages, the production of champagne and water can be distinguished as two extremes: the EUR 17.15 per litre average unit value for champagne far exceeds the 20 cents per litre for mineral water, but the total value of mineral water production in 2006 was EUR 9.6 billion, more than twice the sold production value of champagne.

As with the sold production data, Tables 3.12 and 3.13 provide external trade data on a selection of products – the same selection of products as in Table 3.11. In quantity terms, the EU was, in 2006, a net exporter of large quantities of refined white sugar, recording a trade surplus of 5.5 million tonnes, valued at EUR 1.6 billion. Net exports of quality wine (excluding white and sparkling wine) reached 344 million litres, valued at EUR 2.0 billion.

Table 3.11: Value of sold production of selected agri-foodstuffs, EU-27, 2006

	(EUR million)	Average price per unit (EUR per kg)
Fresh bread containing by weight in the dry matter state <= 5% of sugars & <= 5% of fat	23 194	1.21
Grated; powdered; blue-veined & other non-processed cheese (excluding fresh cheese; whey cheese and curd)	21 481	3.95
Cake and pastry products; other baker's wares with added sweetening matter	18 167	2.40
Sausages not of liver	17 613	3.55
Fresh or chilled cuts of beef and veal	12 460	4.76
Refined white cane or beet sugar in solid form	11 429	0.59
Preparations used for farm animal feeding (excluding premixtures): poultry	8 092	0.21
Roasted coffee, not decaffeinated	7 967	4.88
Flavoured liquid yoghurt / acidified milk (curdled milk; cream; yoghurt & other fermented prod., with fruit; nuts or cocoa)	7 612	1.41
Sauces and prep's therefor, mixed condiments mixed seasonings (excl. soya sauce, tomato ketchup, other tomato sauces, mustard flour / meal & prepared mustard)	5 662	3.14
Sweet biscuits (incl. sandwich biscuits; excl. chocolate coated or related)	4 386	1.78
Virgin olive oil & its fractions (excl. chemically modified)	3 855	2.96
Fruit, prepared or preserved, n.e.c. (excluding Muesli)	2 407	1.17
Vegetables, fruit, nuts & other edible parts of plants, prepared or preserved by vinegar or acetic acid	1 451	1.22
Smoked Pacific; Atlantic and Danube salmon (including fillets)	1 397	15.37
Fish fillets in batter or breadcrumbs including fish fingers	1 394	4.88
Preserved tomatoes; whole or in pieces	963	0.06
	(EUR million)	Average price per unit (EUR per litre)
Quality wine/grape must , v.q.p.r.d. of an alcoholic strength of =>15% excluding white wine and sparkling wine	24 185	9.39
Mineral waters and aerated waters, unsweetened	9 557	0.20
Champagne (important: excluding alcohol duty)	4 189	17.15

Source: Eurostat (Statistics on the production of manufactured goods, PRODCOM)

Table 3.12: Volume of extra EU-27 trade in selected agri-foodstuffs, EU-27, 2006 (1)

(1 000 tonnes)	Imports	Exports	Net trade
Refined white cane or beet sugar in solid form	602	6 063	5 461
Grated; powdered; blue-veined & other non-processed cheese (excluding fresh cheese; whey cheese and curd)	95	455	360
Preserved tomatoes; whole or in pieces	16	333	316
Sweet biscuits (incl. sandwich biscuits; excl. chocolate coated or related)	29	124	95
Sausages not of liver	0	86	86
Cake and pastry products; other baker's wares with added sweetening matter	25	83	59
Roasted coffee, not decaffeinated	13	65	51
Fresh bread containing by weight in the dry matter state <= 5% of sugars & <= 5% of fat	4	51	47
Flavoured liquid yoghurt / acidified milk (curdled milk; cream; yoghurt & other fermented prod., with fruit; nuts or cocoa)	7	41	34
Sauces and prep's therefor, mixed condiments mixed seasonings (excl. soya sauce, tomato ketchup, other tomato sauces, mustard flour / meal & prepared mustard)	125	146	21
Fresh or chilled cuts of beef and veal	16	33	17
Smoked Pacific; Atlantic and Danube salmon (including fillets)	1	4	2
Fish fillets in batter or breadcrumbs including fish fingers	5	7	1
Virgin olive oil & its fractions (excl. chemically modified)	199	189	-10
Fruit, prepared or preserved, n.e.c. (excluding Muesli)	276	87	-189
Vegetables, fruit, nuts & other edible parts of plants, prepared or preserved by vinegar or acetic acid	979	220	-759
Preparations used for farm animal feeding (excluding premixtures): poultry	:	:	:
(million litres)	**Imports**	**Exports**	**Net trade**
Mineral waters and aerated waters, unsweetened	75	1 251	1 176
Quality wine/grape must , v.q.p.r.d. of an alcoholic strength of =>15% excluding white wine and sparkling wine	13	357	344
Champagne (important: excluding alcohol duty)	0	34	34

(1) Quality wine/grape must, mineral waters and aerated waters (unsweetened), and champagne, 2005.

Source: Eurostat (Statistics on the production of manufactured goods, PRODCOM)

Table 3.13: Value of extra EU-27 trade in selected agri-foodstuffs, EU-27, 2006
(EUR million)

	Imports	Exports	Net trade
Quality wine/grape must , v.q.p.r.d. of an alcoholic strength of =>15% excluding white wine and sparkling wine	40	2 058	2 017
Refined white cane or beet sugar in solid form	346	1 935	1 589
Grated; powdered; blue-veined & other non-processed cheese (excluding fresh cheese; whey cheese and curd)	386	1 769	1 383
Champagne (important: excluding alcohol duty)	4	963	959
Mineral waters and aerated waters, unsweetened	24	592	568
Sweet biscuits (incl. sandwich biscuits; excl. chocolate coated or related)	52	317	265
Virgin olive oil & its fractions (excl. chemically modified)	627	857	230
Roasted coffee, not decaffeinated	117	320	203
Cake and pastry products; other baker's wares with added sweetening matter	47	249	202
Sausages not of liver	12	211	199
Preserved tomatoes; whole or in pieces	12	171	158
Sauces and prep's therefor, mixed condiments mixed seasonings (excl. soya sauce, tomato ketchup, other tomato sauces, mustard flour / meal & prepared mustard)	221	372	151
Fresh bread containing by weight in the dry matter state <= 5% of sugars & <= 5% of fat	7	69	62
Flavoured liquid yoghurt / acidified milk (curdled milk; cream; yoghurt & other fermented prod., with fruit; nuts or cocoa)	12	52	39
Smoked Pacific; Atlantic and Danube salmon (including fillets)	14	39	25
Fish fillets in batter or breadcrumbs including fish fingers	17	25	8
Fruit, prepared or preserved, n.e.c. (excluding Muesli)	188	112	-77
Vegetables, fruit, nuts & other edible parts of plants, prepared or preserved by vinegar or acetic acid	709	230	-479
Fresh or chilled cuts of beef and veal	975	81	-894
Preparations used for farm animal feeding (excluding premixtures): poultry	:	:	:

Source: Eurostat (Statistics on the production of manufactured goods, PRODCOM)

Labelling

Protected geographical indications (PGI) and protected designations of origin (PDO) of agricultural products and foodstuffs were created, in part, to protect specific product names from misuse and imitation. The names of more than 700 products are currently registered as either PDOs or PGIs, of which nearly 90 % of the

Table 3.14: Count of registered names of protected designation of origin and protected geographical indications, March 2008 (units)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT
Cheeses	1	-	-	2	4	-	1	20	20	45	33	-	-	-
Meat-based products	2	-	-	-	8	-	1	-	10	4	29	-	-	-
Fresh meat & offal	-	-	-	-	3	-	1	-	13	53	2	-	-	-
Fish & fish products	-	-	2	-	3	-	1	1	1	2	-	-	-	-
Other animal products	-	-	-	-	-	-	-	1	3	6	2	-	-	-
Oils & fats	1	-	-	-	1	-	-	26	21	9	38	-	-	-
Table olives	-	-	-	-	-	-	-	10		3	2	-	-	-
Fruit & veg. & cereals	-	-	2	1	3	-	-	22	33	26	48	-	-	-
Bread, pastry cakes, etc.	1	-	5	-	4	-	-	1	7	2	3	1	-	-
Beer	-	-	3	-	12	-	-	-	-	-	-	-	-	-
Other drinks	-	-	-	-	31	-	-	-	-	5	-	-	-	-

	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK
Cheeses	-	-	-	4	6	2	12	-	-	-	-	1	12
Meat-based products	1	1	-	-	2	-	28	-	-	-	-	-	-
Fresh meat & offal	-	-	-	-	-	-	27	-	-	-	-	-	7
Fish & fish products	-	-	-	-	-	-	-	-	-	-	-	-	3
Other animal products	1	-	-	-	-	-	10	-	-	-	-	-	1
Oils & fats	1	-	-	-	1	-	6	-	1	-	-	-	-
Table olives	-	-	-	-	-	-	1	-	-	-	-	-	-
Fruit & veg. & cereals	-	-	-	2	3		21	-	-	-	1	-	1
Bread, pastry cakes, etc.	-	-	-	-	-	-	-	-	-	1	-	1	-
Beer	-	-	-	-	-	-	-	-	-	-	-	-	2
Other drinks	-	-	-	-	-	-	-	-	-	-	-	-	3

Source: Directorate-General for Agriculture and Rural Development, European Commission (http://ec.europa.eu/agriculture/foodqual/qual1_en.htm)

certified products are from the southern Member States of Italy, France, Spain, Portugal and Greece, and Germany. The main types of products that are certified are crops (fruit, vegetables or cereals), cheese, oils or fats (mainly olive oil), and fresh meat and offal.

Table 3.15: Usable production of quality wines (1 000 hectolitres)

	2002			2007		
	Total	Red/rosé	White	Total	Red/rosé	White
BE	1	0	1	2	0	2
BG	:	:	:	:	:	:
CZ	239	66	173	305	117	188
DK	0	0	0	:	:	:
DE	8 592	2 824	5 768	8 645	3 370	5 275
EE	0	0	0	0	0	0
IE	0	0	0	:	:	:
EL	338	186	152	377	162	215
ES	11 375	7 050	4 325	13 451	8 724	4 727
FR	26 449	18 233	8 216	24 811	16 195	8 616
IT	12 529	6 540	5 989	14 794	8 494	6 300
CY	:	:	:	1	:	:
LV	0	0	0	:	:	0
LT	0	0	0	0	0	0
LU	125	6	119	124	6	118
HU	:	:	:	1 839	657	1 183
MT	15	7	8	0	0	0
NL	0	0	0	0	0	0
AT	2 027	692	1 335	2 010	813	1 196
PL	:	:	:	:	:	:
PT	4 148	:	:	3 318	:	:
RO	:	:	:	:	:	:
SI	:	:	:	498	184	314
SK	222	:	:	270	:	173
FI	0	0	0	0	0	0
SE	:	:	:	:	:	:
UK	2	0	2	10	2	8

Source: Eurostat (Food: From farm to fork statistics, FOOD_PD_DMWIN1)

Processing externalities

The EU's food, beverages and tobacco processing sector generated over 29 million tonnes of animal and vegetal waste in 2004, of which over 6.7 million tonnes was animal waste from food preparation – see Table 3.16.

Table 3.16: Generated non-hazardous animal waste within the food, beverage and tobacco processing sector, 2004

	Animal and vegetal waste (1 000 tonnes)	(% of total waste in food, bev. & tob. process. sector)	Animal waste from food preparation (1 000 tonnes)	(% of total waste in food, bev. & tob. process. sector)
BE	:	:	:	:
BG	314	52.2	32	5.3
CZ	348	40.6	76	8.9
DK	:	:	82	22.6
DE	1 255	35.8	353	10.1
EE	364	57.8	47	7.5
IE	456	15.2	290	9.7
EL	767	69.5	13	1.2
ES	2 116	*37.8*	726	*13.0*
FR	:	:	:	:
IT	*5 267*	*59.0*	*132*	*1.5*
CY	146	36.9	24	6.0
LV	76	65.0	4	3.4
LT	280	61.3	6	1.2
LU	8	58.8	0	1.4
HU	*725*	*42.0*	*75*	*4.3*
MT	1	27.5	2	72.1
NL	5 731	71.7	674	8.4
AT	1 419	68.2	351	16.9
PL	5 197	57.1	1 771	19.5
PT	*352*	*33.5*	*266*	*25.3*
RO	208	83.4	2	0.8
SI	10	13.8	21	28.4
SK	228	46.8	21	4.3
FI	187	2.2	242	2.8
SE	374	44.5	79	9.4
UK	3 207	41.2	1 433	18.4

Source: Eurostat (Waste statistics, ENV_WASGEN)

Table 3.17 concerns waste treatment rather than generation, and concerns all animal and vegetal wastes, regardless of whether they were generated by the food, beverages and tobacco processing sector.

Table 3.17: Treatment (recovery) of non-hazardous animal waste, 2004

	Animal and vegetal waste (1 000 tonnes)	(% of total waste)	Animal waste from food preparation (1 000 tonnes)	(% of total waste)
EU-27	:	:	*4 216*	*0.4*
BE	:	:	:	:
BG	0	0.0	0	0.0
CZ	280	1.8	10	0.1
DK	:	:	165	1.9
DE	6 086	2.8	261	0.1
EE	37	1.0	4	0.1
IE	350	3.0	295	2.5
EL	26	0.8	1	0.0
ES	733	2.4	494	1.6
FR	*2 773*	*1.1*	*32*	*0.0*
IT	3 218	5.6	7	0.0
CY	94	13.6	3	0.5
LV	67	22.2	:	:
LT	292	28.3	7	0.7
LU	62	1.2	0	0.0
HU	90	4.1	0	0.0
MT	2	4.4	0	0.0
NL	9 965	15.6	277	0.4
AT	3 037	8.3	19	0.1
PL	824	0.8	585	0.6
PT	349	3.4	*270*	2.7
RO	23	0.4	0	0.0
SI	5	0.2	:	:
SK	451	6.9	16	0.2
FI	107	0.6	205	1.2
SE	334	1.9	186	1.0
UK	6 317	7.4	853	1.0

Source: Eurostat (Waste statistics, ENV_WASTRT)

Packaging that comes in contact with food and beverage products includes mainly metal, cardboard, plastics, glass and wood. Several factors determine the choice of materials, including their

Table 3.18: Sold production of packaging items used in agri-foodstuffs

	Bottles of colourless glass		Bottles of coloured glass		Glass containers	
	2006 (millions) (1)	Change 2002-06 (%) (2)	2006 (millions) (3)	Change 2002-06 (%) (4)	2006 (millions) (5)	Change 2002-06 (%) (6)
EU-25	*17 795*	*-7.7*	*28 977*	*-4.1*	*13 638*	*-1.8*
BE	:	:	:	:	0	:
BG	352	18.2	484	39.4	0	:
CZ	:	:	0	:	:	:
DK	82	:	271	:	265	432.5
DE	3 140	-21.1	5 940	-10.6	:	:
EE	:	:	:	:	0	:
IE	0	:	0	:	0	:
EL	0	:	0	:	:	:
ES	2 799	5.5	3 542	-12.7	960	152.3
FR	1 642	:	7 495	-0.4	2 485	-0.2
IT	186	592.6	1 757	-49.7	6 408	-21.8
CY	0	:	0	:	0	:
LV	:	:	:	:	0	:
LT	73	:	50	:	0	:
LU	0	:	0	:	0	:
HU	92	37.1	0	:	0	:
MT	0	:	0	:	0	:
NL	:	:	:	:	:	:
AT	917	-17.4	:	:	:	:
PL	1 497	7.8	861	11.4	616	28.7
PT	1 633	8.5	2 880	16.4	0	:
RO	208	28.1	43	:	0	:
SI	:	:	0	:	0	:
SK	:	:	:	:	:	:
FI	233	177.4	53	-48.9	0	:
SE	144	:	24	:	:	:
UK	3 670	-4.0	2 210	-4.7	433	11.5

(1) Denmark, Ireland, Greece, Cyprus, Luxembourg, Hungary, Malta and Austria, 2005; France, 2003, Sweden, 2002.
(2) EU-25, 2003-2006; Bulgaria and Romania, 2004-2006; Hungary and Austria, 2002-2005.
(3) EU-25, the Czech Republic, Denmark, Ireland, Greece, France, Cyprus, Luxembourg, Hungary, Malta, Romania and Slovenia, 2005; the Netherlands, 2004; Sweden, 2002.
(4) EU-25, 2003-2005; Bulgaria, 2004-2006; France, 2002-2005.
(5) EU-25, Belgium, Bulgaria, Denmark, Estonia, Ireland, France, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Poland, Portugal, Romania, Slovenia and Finland, 2005.
(6) EU-25 and the United Kingdom, 2003-2006; Denmark and Poland, 2002-2005; France, 2003-2005.

Source: Eurostat (Food: From farm to fork statistics, FOOD_PD_AAPAC1)

ability to protect the product without spoiling, weight (low weight reducing transport costs), cost, and the extent to which they can be reused or recycled. Table 3.18 provides information on the production of glass bottles and containers – note that these may be used for products other than food and beverages, for example, pharmaceuticals or cosmetics.

Table 3.19: National and international road transport of foodstuffs, 2006 (1)
(million tonnes)

	Total foodstuffs and animal fodder		Cereals		Potatoes, fresh or frozen fruit and veg.		Live animals & sugar beet		Oilseeds & oleaginous fruits and fats	
	Nat.	Inter.	Nat.	Inter. (2)	Nat.	Inter. (3)	Nat.	Inter.	Nat.	Inter. (3)
BE	38.5	4.18	1.7	0.27	7.6	0.91	4.4	0.09	0.7	0.32
BG	7.3	0.26	5.0	0.19	0.3	0.05	0.7	:	0.9	0.02
CZ	35.4	1.71	11.8	0.52	5.0	0.13	3.9	0.02	1.2	0.15
DK	32.1	1.46	6.8	0.07	3.9	0.23	3.4	0.13	1.2	0.14
DE	344.5	9.76	25.7	1.24	30.7	0.91	15.5	0.15	12.2	0.63
EE	3.1	0.15	0.2	0.00	0.0	0.01	0.0	:	0.0	0.01
IE	29.4	1.04	3.1	0.08	1.8	0.04	2.4	0.09	0.2	0.00
EL	27.2	0.72	6.3	0.03	7.2	0.44	0.9	:	1.5	0.08
ES	169.2	3.59	35.2	0.11	38.4	8.54	12.8	0.12	9.9	0.41
FR	199.1	3.69	66.7	0.86	76.6	0.87	23.1	0.13	8.2	0.28
IT (4)	121.2	3.10	26.6	0.04	21.4	1.62	9.3	0.07	2.4	0.02
CY	3.7	0.00	0.5	:	0.6	0.00	0.1	0.00	0.0	:
LV	3.6	0.42	0.6	0.01	0.2	0.02	0.3	0.00	0.2	0.01
LT	4.0	0.47	1.0	0.03	0.2	0.05	0.4	0.01	0.1	0.04
LU	0.7	0.47	0.1	0.04	0.3	0.03	0.0	0.00	:	:
HU	23.5	0.77	12.3	0.82	2.3	0.15	3.2	0.09	2.0	0.09
MT	:	:	:	:	:	:	:	:	0.0	0.00
NL	74.4	8.55	1.3	0.10	19.4	4.83	6.6	0.42	2.4	0.79
AT	21.7	1.58	1.8	0.32	3.2	0.18	1.1	0.02	0.4	0.04
PL	94.5	3.00	10.1	0.13	9.0	0.90	6.0	0.22	1.1	0.00
PT	28.6	0.56	4.8	0.23	3.5	0.16	0.7	0.01	1.6	0.13
RO	38.6	0.23	5.2	0.00	0.6	:	1.1	:	0.6	:
SI	3.6	0.30	0.1	0.08	0.5	0.07	0.2	0.01	0.0	0.01
SK	14.6	0.43	6.5	0.29	0.5	0.06	1.4	0.01	0.6	0.01
FI	19.7	0.22	2.1	:	1.2	0.04	1.6	0.00	0.2	0.00
SE	25.3	0.36	3.4	0.01	2.0	0.02	1.6	0.00	0.2	0.02
UK	294.8	2.04	17.5	0.01	36.3	0.31	16.2	0.01	5.1	0.03

(1) Goods produced and loaded in reporting country and destined for national or international destinations.
(2) Latvia, 2005.
(3) Estonia, 2005.
(4) 2005.

Source: Eurostat (Food: From farm to fork statistics, FOOD_PD_AATRAN1)

4

Distribution stage

Context

This chapter focuses on food and beverage distributors, in other words, the interface between producers and consumers. In a simplified presentation, wholesalers and wholesale agents are intermediaries between producers and retailers or between two producers, for example, between sugar refiners and confectionery producers, while retailers supply consumers, sourcing their products directly from producers or from wholesalers. Traditionally national food retail markets within Europe have been served by a mixture of local shops and national chains. An expansion by national groups into other markets within the EU and further afield has been witnessed in recent years. Accompanying this international retail expansion, food and beverage products are increasingly traded internationally, with imported produce available alongside local, regional and national produce, such that many products that were traditionally considered to be seasonal are now available practically all year round. Food retailers can be distinguished between specialised retailers, for example, bakers and butchers, and non-specialised food retailers, including independent grocers and convenience stores, as well as national and international supermarket, discount and hypermarket chains. In many Member States the three largest food retailers are believed to account for more than half the food retailing market, and this high concentration has raised concerns over competition and buying power. As well as in-store retailers, markets and stalls play an important role in food retailing in some Member States, particularly in the southern Member States.

The ability to trace food through the distribution chain helps producers, distributors or public authorities to withdraw or recall products which have been identified as unsafe, helping to ensure food safety while reducing disruption to trade. Based on EU legislation, traceability has been compulsory since 2005 for all enterprises involved in food and animal feed. This requires traceability systems to be implemented in order to be able to identify where products have come from and where they are going. There are special rules for certain categories of food products as well as for genetically modified products.

The EU is also active in a number of other areas related to the distribution of food and beverages, notably concerning labelling, packaging and food safety, including additives and supplements. A 1990 Council Directive legislates for nutritional labelling of food

products, while a European Parliament and Council Directive from 2000 legislates for general provisions concerning labelling, presentation and advertising of food products. Among other things, this prohibits the use of information that would mislead consumers or attribute medicinal properties to food. In January 2008, the European Commission adopted proposals to revise and combine these pieces of legislation in a new Regulation, with a view to help consumers make healthier choices as part of a more balanced diet, and so contribute towards combating obesity.

As opposed to nutritional information, a European Parliament and Council Regulation on nutrition and health claims made on foods was adopted in 2006, and aims to avoid users being confused or misled by unfounded or overstated claims about the nutritional content or health benefits of food and beverage products. Additionally, the legislation should help ensure fair competition for producers. The Regulation applies to food and beverage products intended for human consumption made available within the EU. Implementation of this legislation started in July 2007 and is being carried out in stages.

A European Parliament and Council Directive from 2004 legislates for materials and articles intended to come into contact with food, including packaging. The basic principle is that any such material or article must be sufficiently inert to preclude substances from being transferred to food in quantities large enough to endanger human health or to bring about an unacceptable change in the composition or properties of the food.

Food additives are substances added intentionally to food products, for example, to colour, to sweeten or to preserve food. A 2006 European Parliament and Council Regulation regulates the addition of vitamins and minerals and certain other substances to food products. As opposed to additives, food supplements are concentrated sources of nutrients or other substances with a nutritional or physiological effect whose purpose is to supplement the normal diet; they are marketed in distinct doses, for example, as pills or capsules. A 2002 Directive of the European Parliament and Council established rules for the labelling of food supplements to help consumers. Mineral and vitamin supplements, as well as mineral and vitamin additives, are subject to evaluation by the European Food Safety Agency (EFSA). Novel food products, including genetically modified products are also subject to safety evaluations – novel food products are those whose consumption within the EU was nil or insignificant prior to May 1997.

Table 4.1: Number of enterprises, wholesale and retail activities, 2005
(1 000)

	Wholesale activities				Retail activities				
	Food, bev. & tob.	Fruit & veg.	Meat	Oth. food excl. dairy prod. eggs & fats	Non-spec. store with food, bev. or tob.	Food, bev. & tob. in spec. store	Fruit & veg.	Meat	Bread, cake, flour conf. & sugar conf.
EU-27 (1)	214.0	42.5	22.4	43.0	474.7	508.8	76.7	130.0	66.0
BE	5.4	0.8	0.9	0.6	6.7	11.4	1.2	4.3	2.4
BG	5.7	0.7	0.5	0.9	22.5	8.1	1.7	0.5	2.0
CZ (2)	3.0	:	:	:	:	7.8	:	:	:
DK	1.8	0.2	0.2	0.5	3.3	2.9	0.5	0.7	0.4
DE	10.2	1.8	1.2	1.2	20.6	27.3	3.6	2.9	3.4
EE	0.5	0.0	0.0	0.1	0.9	0.2	0.0	0.0	0.0
IE (3)	1.6	0.3	0.3	0.2	3.2	2.0	0.2	1.3	0.1
EL	15.2	2.9	1.5	3.1	25.8	30.0	5.3	6.2	8.0
ES	43.7	10.0	5.7	9.3	31.3	122.8	16.6	32.0	24.3
FR	21.1	3.9	1.7	4.8	31.2	47.7	5.8	17.4	3.9
IT	35.0	9.2	2.9	7.6	57.1	115.7	19.7	32.8	8.7
CY	0.5	0.1	0.0	0.0	2.2	0.8	0.1	0.5	0.1
LV	1.0	0.1	0.1	0.3	2.3	0.2	0.0	0.0	0.0
LT	0.7	0.1	0.1	0.2	3.7	0.2	0.0	0.0	0.0
LU	0.3	0.0	0.0	0.0	0.2	0.3	0.0	0.1	0.0
HU	4.1	1.1	0.4	0.9	18.0	7.6	2.6	1.4	0.7
MT	:	:	:	:	:	:	:	:	:
NL	6.7	1.1	0.9	1.7	3.1	9.8	1.4	2.8	0.9
AT	2.2	0.3	0.2	0.4	3.5	5.5	0.5	0.3	0.3
PL	13.8	3.0	1.2	1.3	84.1	28.4	4.9	6.2	1.7
PT	12.4	2.0	0.9	4.3	20.3	31.2	4.7	7.1	1.7
RO	8.2	1.0	0.6	0.9	62.2	9.3	1.9	1.1	1.2
SI	0.4	0.1	0.0	0.0	1.0	0.5	0.2	0.1	0.0
SK	0.4	0.1	0.0	0.0	0.2	0.2	0.1	0.0	:
FI	1.1	0.2	0.0	0.3	3.1	1.1	0.2	0.1	0.2
SE	4.4	0.6	0.3	1.7	6.0	6.4	0.3	0.1	1.6
UK	14.1	2.2	2.3	1.9	28.6	31.5	4.2	7.2	3.4
NO	1.6	0.2	0.1	0.8	5.3	1.1	0.1	0.1	0.2

(1) Includes estimates; retail sale of food, beverages and tobacco in specialized stores, unreliable.
(2) 2004.
(3) Wholesale of other food excluding dairy products, eggs and fats, and retail sale of meat and meat products, 2004.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT8 and Structural business statistics, SBS_NA_3B_TR)

Structural overview

From Tables 4.1 and 4.2 it can be seen that there are more enterprises providing food and beverage services (restaurants, bars, canteens and catering) than there are own-account wholesalers and retailers of food, beverages and tobacco. The number of restaurants, bars, canteens and catering enterprises in the EU-27 was about 1.4 million in the EU-27 in 2005. In comparison, there were 214 000 food, beverage and tobacco wholesalers and nearly a million (984 000) food, beverage and tobacco retail enterprises, a slight majority of the latter being enterprises with specialised stores. Note that the figures here are for the number of enterprises, not the number of outlets, each enterprise is counted once regardless of the number of outlets.

Table 4.2: Number of restaurants, bars, canteens and catering enterprises
(1 000)

	2000	2005
EU-27	1 259.0	1 392.3
BE	39.1	40.0
BG	21.3	20.9
CZ (1)	35.1	42.0
DK	11.9	12.1
DE	139.9	120.5
EE	1.0	1.2
IE	9.0	9.7
EL	73.3	79.7
ES	244.3	262.0
FR	158.4	179.7
IT	210.1	224.4
CY	6.2	6.2
LV	1.8	2.3
LT	2.4	2.7
LU	2.1	2.3
HU	3.1	29.6
MT	1.8	:
NL	34.6	31.9
AT	22.6	30.3
PL	39.4	45.3
PT	56.4	78.5
RO	9.0	16.7
SI	7.6	6.0
SK	0.5	1.0
FI	9.1	8.7
SE	17.6	20.8
UK	101.4	115.1
NO	7.1	7.4

(1) 2004 instead of 2005.

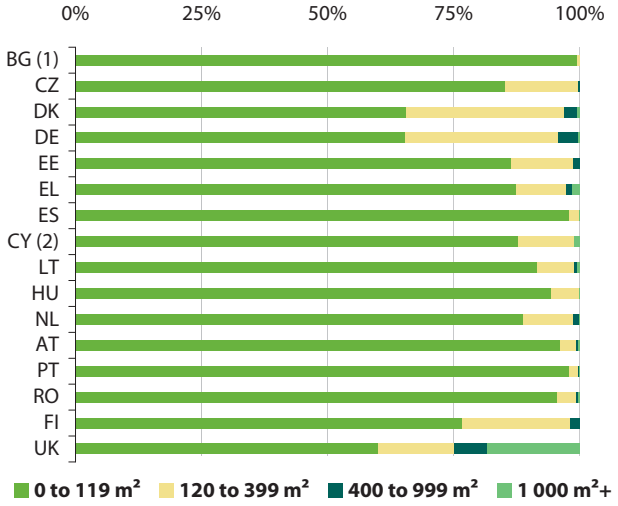
Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT9)

Retail sales space

The vast majority of specialised food, beverage and tobacco retail stores were small, with less than 120 m² of sales space, as can be seen from Figure 4.1. Slightly larger retail stores, with sales space of between 120 and 399 m² were relatively common in Denmark and Germany, while across those countries for which information is available, larger stores (with 400 m² or more of sales space) were only common in the United Kingdom.

Figures 4.2 and 4.3 (based on data for the five largest Member States) confirm the dominance of micro and small enterprises in terms of a simple count of enterprises: medium-sized and large enterprises (with 50 or more persons employed) made up just 2.3 % of the enterprise population of food, beverage and tobacco own-account wholesalers, and 0.2 % of specialised food, beverage and tobacco retailers. In contrast, these medium-sized and large enterprises generated more than half (50.7 %) of the value added among own-account wholesalers and more than a tenth (13.2 %) of the value added generated among specialised retailers.

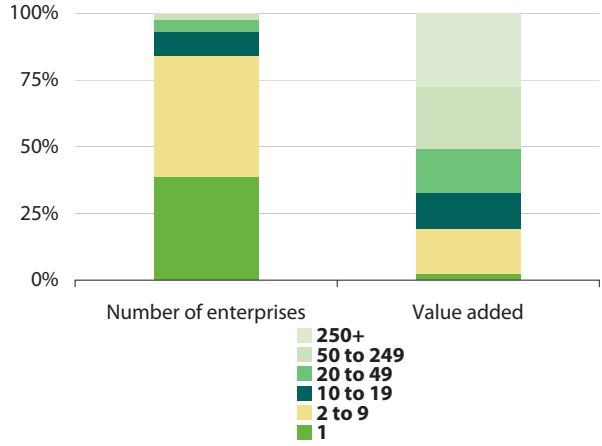
Figure 4.1: Number of stores by category of sales space, retail sale of food, beverages and tobacco in specialized stores, 2002 (% of total)



(1) 120 to 399 m² includes also 400 to 999 m².
(2) 120 to 399 m² includes also 400 to 2 499 m²; > 1 000 m² includes only 2 500 m² +.

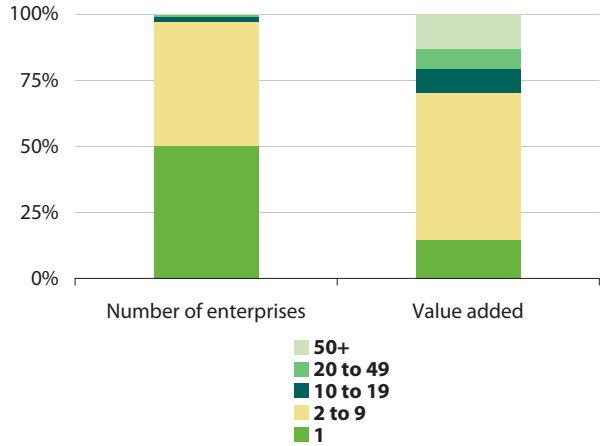
Source: Eurostat (Distributive trade statistics, DT_OTH_3D52_SPA)

Figure 4.2: Number of enterprises and value added, breakdown by employment size class, wholesale of food, beverages and tobacco, average for the five largest Member States, 2005 (1)
(% of total)



(1) Germany, Spain, France, Italy and the United Kingdom.
Source: Eurostat (Structural business statistics, SBS_SC_3CE_TR02)

Figure 4.3: Number of enterprises and value added, breakdown by employment size class, retail sale of food, beverages and tobacco in specialized stores, average for the five largest Member States, 2005 (1)
(% of total)



(1) Germany, Spain, France, Italy (2004) and the United Kingdom.
Source: Eurostat (Structural business statistics, SBS_SC_3CE_TR02)

Employment

Food, beverage and tobacco distribution enterprises are major employers in the EU, with a total of close to 10 million persons working in own-account wholesaling, the specialised retailing of food, beverages and tobacco, and restaurants, bars, canteens and catering enterprises. It should be noted that the data shown in Table 4.3 and Figures 4.4 and 4.5 are based on a simple count of persons employed, and that (in particular) specialised food, beverage and tobacco retailers and restaurants, bars, canteens and catering enterprises may well employ a large proportion of part-time workers relative to other areas of the economy (including wholesalers).

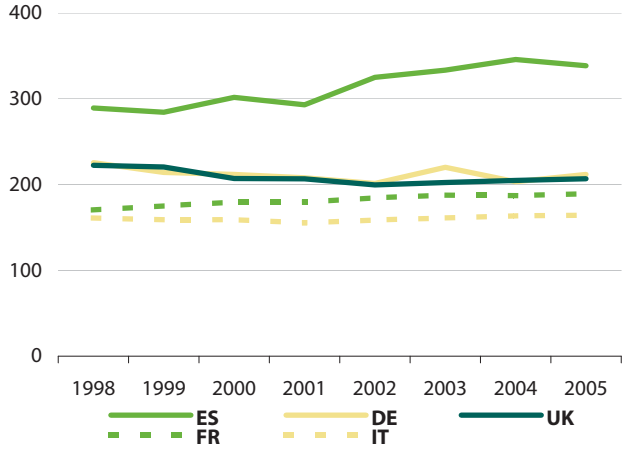
Table 4.3: Number of persons employed, 2005 (1 000)

	Wholesale of food, beverages & tobacco	Retail sale of food, beverages & tobacco in specialized stores	Restaurants; bars; canteens & catering
EU-27	1 835.9	1 442.9	6 663.4
BE	34.7	32.4	137.8
BG	39.5	19.7	81.9
CZ (1)	30.1	23.0	137.1
DK	20.3	11.7	77.0
DE	211.9	159.6	812.2
EE	5.1	1.1	11.5
IE	20.9	9.9	90.0
EL	73.7	72.5	215.9
ES	338.6	263.0	933.4
FR	189.3	102.1	631.6
IT	164.3	218.0	810.3
CY	5.7	1.8	18.3
LV	11.7	1.9	24.1
LT	14.4	1.3	28.9
LU	6.3	1.2	11.4
HU	31.8	18.9	101.0
MT	:	:	:
NL	71.8	56.4	238.0
AT	26.3	22.6	134.1
PL	112.1	114.3	165.0
PT	67.0	47.9	217.0
RO	95.8	33.1	74.4
SI	2.3	1.7	20.9
SK	10.5	2.9	10.1
FI	8.8	4.5	40.5
SE	31.9	16.8	86.5
UK	206.8	206.6	1 555.2
NO	15.1	6.0	55.2

(1) 2004.

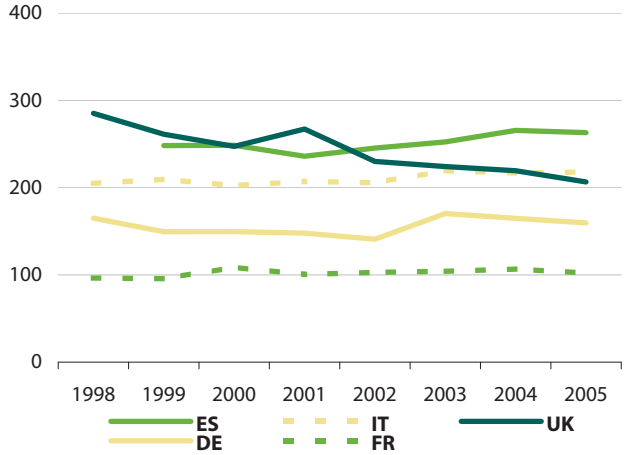
Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT8 and FOOD_ACT9 and Structural business statistics, SBS_NA_3B_TR)

Figure 4.4: Number of persons employed, wholesale of food, beverages and tobacco
(1 000)



Source: Eurostat (Structural business statistics, SBS_NA_3B_TR)

Figure 4.5: Number of persons employed, retail sale of food, beverages and tobacco in specialized stores
(1 000)



Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT8)

Turnover

While the EU-27's turnover index for specialised food, beverage and tobacco retailing has increased or been stable every year since 1998 except in 2004 (see Figure 4.6) the volume of sales has fallen, implying that the turnover growth resulted from price increases rather than increased sales. Note that, unlike the other indicators presented in this chapter, the turnover index in Figure 4.7 for restaurants, bars, canteens and catering also includes hotels.

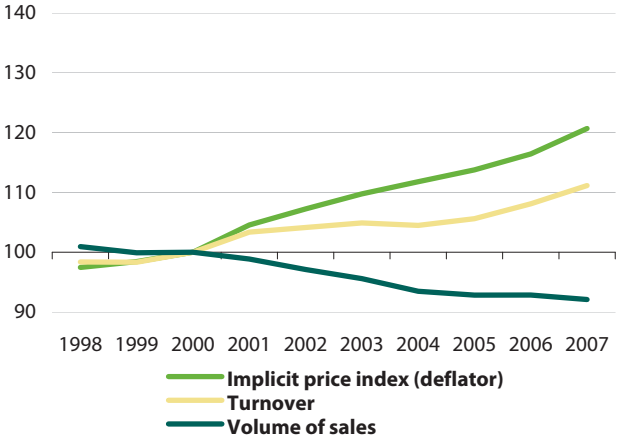
Table 4.4: Turnover, 2005
(EUR million)

	Wholesale activities				Retail activities				
	Food, bev. & tob.	Fruit & veg.	Meat	Oth. food excl. dairy prod. eggs & fats	Food, bev. & tob. in spec. store	Fruit & veg.	Meat	Bread, cake, flour conf. & sugar conf.	Restaurants, bars, canteens & catering
EU-27	776.8	113.0	71.7	105.1	126.9	12.5	30.4	12.4	278.5
BE	28.8	3.5	4.4	2.9	4.1	0.3	1.8	0.4	8.0
BG	3.8	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.5
CZ (1)	7.3	:	:	:	1.1	:	:	:	2.5
DK	19.5	1.2	2.4	3.4	1.1	0.1	0.3	0.1	3.5
DE	127.0	17.8	14.7	16.0	13.4	1.0	1.9	1.6	27.2
EE	1.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.2
IE (2)	14.1	2.1	1.2	0.6	1.2	0.1	0.6	0.1	5.9
EL	19.5	2.9	1.7	4.3	6.5	0.7	1.3	1.4	6.0
ES	88.6	22.8	7.7	17.3	24.0	2.1	4.8	3.0	38.2
FR	111.3	16.4	8.2	12.5	13.8	1.9	5.9	0.6	40.4
IT	90.4	12.4	7.2	20.6	20.9	3.0	5.3	1.5	36.1
CY	1.1	0.3	0.1	0.1	0.3	0.1	0.1	0.0	0.8
LV	1.7	0.2	0.1	0.3	0.1	0.0	0.0	0.0	0.3
LT	1.7	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.3
LU	5.1	0.0	0.1	:	0.1	0.0	0.1	0.0	0.8
HU	7.1	0.7	0.6	0.7	0.8	0.2	0.3	0.0	1.8
MT	:	:	:	:	:	:	:	:	:
NL	54.1	10.6	5.7	6.3	4.5	0.4	1.3	0.3	10.5
AT	14.2	1.1	1.1	2.1	3.2	0.1	0.2	0.2	6.3
PL	21.9	2.1	2.0	1.7	5.4	0.4	0.9	0.2	2.6
PT	16.5	1.5	1.0	4.6	2.8	0.2	1.2	0.1	6.4
RO	11.2	0.8	1.0	0.5	0.9	0.1	0.3	0.1	0.9
SI	0.6	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.7
SK	2.0	0.2	0.1	0.1	0.1	0.0	0.0	:	0.2
FI (3)	6.1	0.4	0.1	1.0	1.3	0.0	0.0	0.0	3.3
SE	18.2	1.6	1.3	2.0	3.5	0.1	:	0.3	5.6
UK	101.8	13.0	9.6	6.1	17.2	1.7	3.6	2.3	69.4
NO	21.2	1.2	0.2	5.9	1.7	0.0	0.0	0.1	3.2

(1) 2004.
(2) Wholesale of other food excluding dairy products, eggs and fats, and retail sale of meat and meat products, 2004.
(3) Retail sale of meat and meat products, 2004.

Source: Eurostat (Food: From farm to fork statistics, FOOD_ACT8 and FOOD_ACT9, and Structural business statistics, SBS_NA_3B_TR)

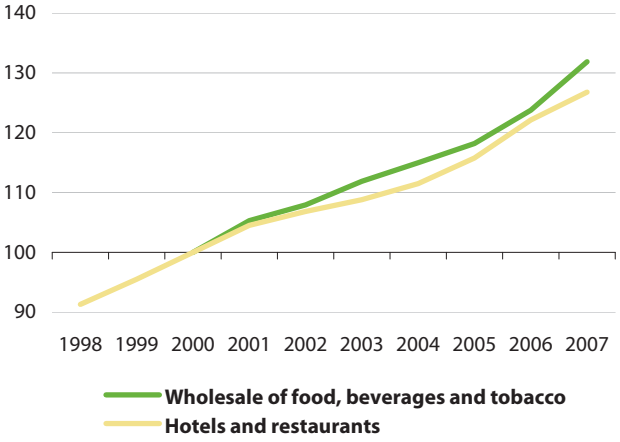
Figure 4.6: Selected indices (working day adjusted), retail sale of food, beverages and tobacco in specialized stores, EU-27 (1) (2000=100)



(1) Includes Eurostat estimates.

Source: Eurostat (Short-term business statistics, EBT_TS_RET)

Figure 4.7: Turnover indices (working day adjusted), EU-27 (1) (2000=100)



(1) Includes Eurostat estimates.

Source: Eurostat (Short-term business statistics, EBT_TS_WHO and EBT_TS_OTHSV)

5

Consumption stage

Context

This chapter focuses on consumers, looking at the availability of food and beverages for human consumption, expenditure on food and beverages, prices paid, as well as their health and opinions concerning food production, practices and policies. Food and beverages are amongst the most important consumption items, satisfying the basic physiological needs of hunger and thirst and forming one of the most recurrent expenditure items for the majority of EU households. There is great diversity across the EU as regards food and beverage products, and these often form a part of local, regional and national, cultural identity. At the same time, however, there are examples of convergence in consumption patterns, perhaps reflecting greater consumer awareness and more international distribution networks.

There are health issues related to food that are not directly linked to the inherent safety of the food, but to the level and balance of food consumption. Guideline daily amounts (GDAs) are guides for the amount of energy and nutrients that a typical healthy adult should be eating in a day, including the proportion of fats, carbohydrates, proteins, and fibre, as well as sodium (salt). Many nutritionists and health experts believe that healthy eating habits should be established from an early age and for this reason the consumption habits of young people are of particular interest, with increasing rates of child obesity a particular concern.

European consumers consider not only price, but also quality, when purchasing food. The EU works to safeguard food quality in many ways, with policies on food safety and hygiene, labelling and nutritional information, food additives (see previous chapter), animal and plant health and welfare regulations, as well as restrictions on pesticide residues. One practical aspect concerning food safety within the EU is the rapid alert system for food and feed (RASFF), which is a notification system for concerns about food and drinks (including alcoholic drinks), providing a system for the swift exchange of information between Member States and the coordination of response actions to food safety threats. In 2006 by far the single largest number of notifications in 2006 concerned nuts and nut products, followed by fruit and vegetables, and fish and fish products; 29 % of notifications concerned products originating within the EU-27, and just under a tenth (8 % to 9 %) originated from each of China, Turkey, Iran and the United States.

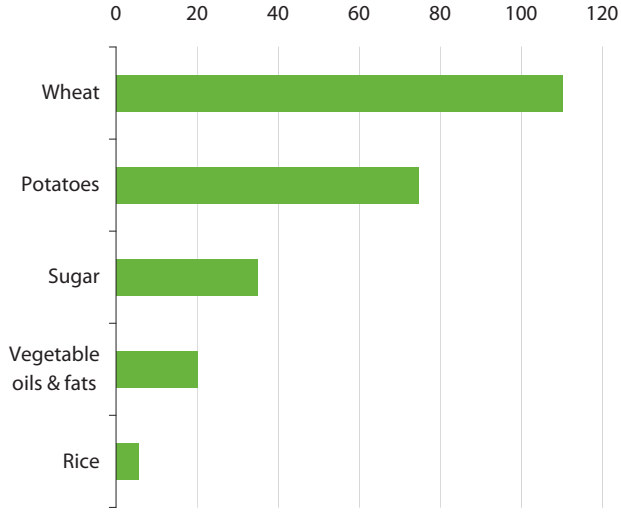
Specific instruments have been developed to recognise the origin or quality of specific food products. These include rules on protected geographical indications (PGI) and protected designations of origin (PDO) of agricultural products and foodstuffs. These rules were created in 1992 with the aim of protecting specific product names from misuse and imitation and to help consumers by giving them information concerning the specific characteristics of products. More details on these products can be found in the previous chapter.

Volume of food and beverages available for human consumption

Figures 5.1 to 5.4 and Tables 5.1 to 5.4 show data on gross apparent human consumption, compiled from supply balance sheets that estimate food availability to the consumer and not actual consumption by households. The information presents, in quantity terms, the apparent consumption of selected food items in 2007. Wide disparities exist between the consumption of certain food items across EU Member States, usually related to whether or not a product can be supplied locally. For example, the principal consumers of vegetable oils and fats are Greece, Spain and Italy.

Figure 5.1 and Table 5.1 show information for a number of crop based products. Average annual consumption per capita of wheat, a major constituent of bakery products and pasta, was over 100 kg. Wheat consumption was high in Greece, Romania, Bulgaria and Italy, while consumption of potatoes was highest in Ireland and Poland. Among the products shown, apparent sugar consumption varied least between Member States.

Figure 5.1: Gross human apparent consumption per capita (availability for human consumption), EU average, 2007 (1) (kg)



(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Table 5.1: Gross human apparent consumption per capita (availability for human consumption), 2007 (1)
(kg)

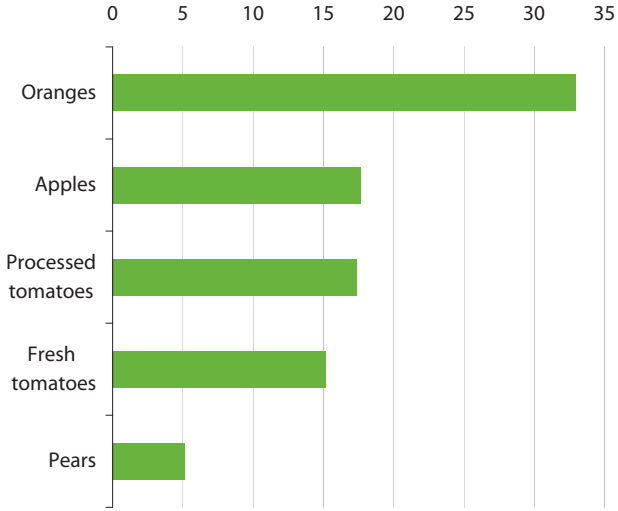
	Wheat	Rice	Potatoes	Vegetable oils & fats	Sugar
EU (2)	110.2	5.6	74.7	17.5	34.8
BE	106.8	3.5	84.8	:	52.2
BG	168.3	3.9	38.3	16.4	26.0
CZ	99.8	:	75.1	:	38.4
DK	100.8	1.6	55.1	:	40.4
DE	78.6	3.5	68.6	18.1	37.4
EE	50.7	3.0	84.4	11.7	54.8
IE	86.5	7.8	123.1	:	31.8
EL	196.2	4.8	93.7	48.6	28.6
ES	98.6	6.2	81.9	33.3	29.0
FR	108.0	6.5	50.6	15.5	36.5
IT	150.2	10.4	44.7	27.9	43.6
CY	:	:	:	:	:
LV	87.3	2.7	102.4	:	35.0
LT	88.7	2.5	79.4	13.4	26.6
LU	66.0	:	79.9	:	51.1
HU	134.1	5.9	59.2	:	42.9
MT	97.6	9.5	100.0	18.4	44.1
NL	76.8	4.6	:	19.0	27.5
AT	77.5	3.1	54.8	12.2	38.1
PL	108.4	2.0	120.7	5.3	33.8
PT	109.8	17.6	86.8	21.1	30.4
RO	173.8	3.1	91.3	12.7	30.3
SI	100.8	3.6	65.7	:	:
SK	108.3	5.8	54.3	:	36.8
FI	57.7	4.5	85.8	5.0	39.1
SE	67.9	6.7	79.7	2.7	48.3
UK	100.8	5.6	96.9	24.3	23.7

(1) Latest year available has been used to replace data that were not available for 2007.
(2) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Figure 5.2 and Table 5.2 show information for selected fruits (including tomatoes). Annual apparent consumption of oranges, apples and pears together exceeded 55 kg per capita on average, while the consumption of tomatoes (fresh and processed) was over 32 kg. Annual apparent consumption of oranges exceeded 100 kg per capita in France, in contrast to an average consumption just above 5 kg per capita in the United Kingdom, Germany or Austria. Denmark topped the ranking (among the Member States with data available) for apples, with over 50 kg consumed, on average, per capita, while Poland, Lithuania and Bulgaria reported average consumption of less than 10 kg. The highest per capita consumption of pears was in Italy (12 kg) and the lowest in Poland and Lithuania (both less than 1 kg); Austria was the only Member State where the apparent consumption of pears was greater than that of oranges. Southern Member States topped the ranking for the consumption of tomatoes, averages exceeding 70 kg per capita in Greece, Malta and Italy.

Figure 5.2: Gross human apparent consumption per capita (availability for human consumption), EU average, 2007 (1) (kg)



(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Table 5.2: Gross human apparent consumption per capita (availability for human consumption), 2007 (kg)

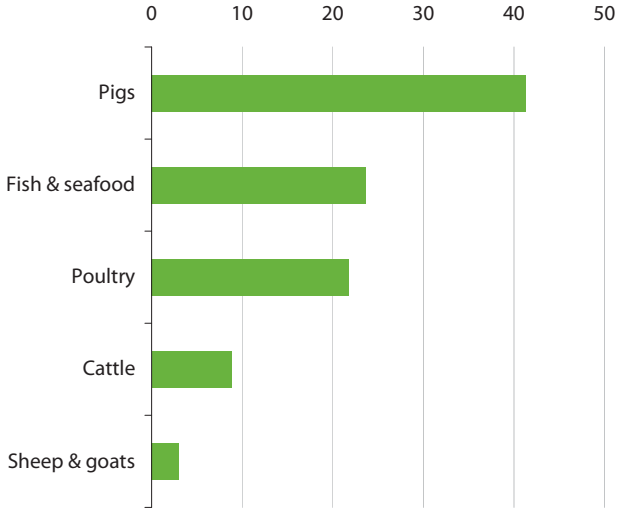
	Apples	Oranges	Pears	Fresh tomatoes	Processed tomatoes
EU (1)	17.7	32.9	5.1	15.2	17.4
BE	26.0	19.1	5.9	7.9	18.0
BG	5.7	10.2	1.3	14.5	7.8
CZ	:	:	:	:	:
DK	53.6	:	7.8	32.2	:
DE	16.9	5.9	2.4	7.8	14.6
EE	25.2	25.3	3.6	9.9	10.5
IE	12.8	66.8	9.7	6.9	10.9
EL	20.6	60.3	5.6	57.0	23.0
ES	17.3	30.8	8.2	17.0	22.3
FR	24.0	116.6	5.3	14.0	16.7
IT	17.5	38.3	12.4	31.0	40.0
CY	:	:	:	:	:
LV	:	:	:	:	:
LT	6.1	10.9	0.7	2.5	11.2
LU	21.8	:	4.5	10.0	18.4
HU	24.5	15.2	3.2	9.4	9.2
MT	20.7	24.9	3.2	36.8	36.8
NL	:	:	:	:	:
AT	28.6	5.7	7.6	8.8	15.0
PL	7.9	13.2	0.9	8.6	9.1
PT	30.0	23.2	10.6	10.6	7.9
RO	13.3	9.0	1.8	21.9	14.2
SI	:	:	:	:	:
SK	:	:	:	:	:
FI	22.0	48.7	3.3	10.5	13.6
SE	21.9	36.3	6.1	10.2	16.7
UK	11.6	5.1	2.4	8.6	7.3

(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Similar information for meat and for fish and seafood products is shown in Figure 5.3 and Table 5.3. The highest annual apparent consumption among these products was recorded for pork products, averaging over 40 kg per capita, a level that was higher than the combined total of poultry, cattle, sheep and goats. Spain, Austria, Germany, Denmark and Belgium reported the highest per capita apparent consumption of pig meat, all recording averages in excess of 50 kg, while the United Kingdom, Lithuania and Greece recorded per capita averages below 30 kg. Spain also recorded the highest per capita apparent consumption of poultry meat: the two Iberian Member States, as well as Ireland and the United Kingdom all recorded annual apparent consumption of poultry meat averaging around 30 kg per capita. The Czech Republic recorded by far the lowest apparent consumption of poultry meat, just 2.3 kg per capita. A more complete set of data is available for fish and seafood, showing high average apparent consumption in Portugal and Lithuania (both over 50 kg per capita), as well as in Spain and Malta. The lowest annual average apparent consumption of fish and seafood was recorded in Bulgaria (2.8 kg per capita), with Hungary and Romania also recording averages below 5 kg per capita.

Figure 5.3: Gross human apparent consumption per capita (availability for human consumption), EU average, 2007 (1) (kg)



(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Table 5.3: Gross human apparent consumption per capita (availability for human consumption), 2007 (kg)

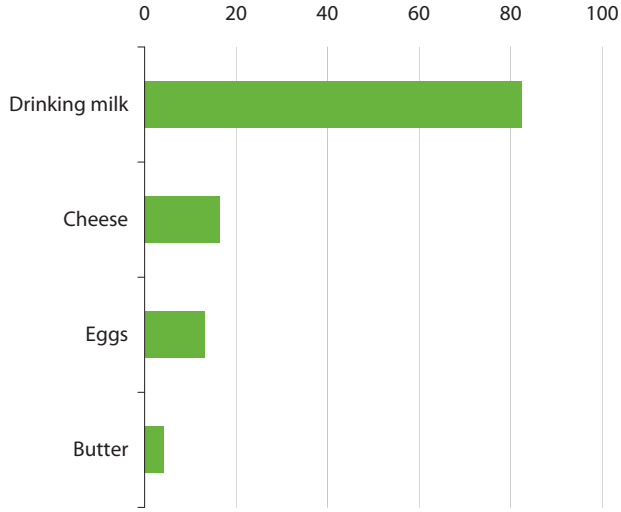
	Cattle	Poultry	Pigs	Sheep & goats	Fish & seafood
EU (1)	8.8	21.8	41.3	3.0	23.6
BE	22.1	21.1	51.8	1.8	:
BG	:	:	:	:	2.8
CZ	:	2.3	:	:	10.4
DK	27.5	21.7	52.1	1.3	23.1
DE	12.7	16.6	53.9	1.0	12.3
EE	:	:	:	:	20.3
IE	17.7	31.0	38.5	5.4	17.7
EL	16.7	19.3	28.4	11.5	23.1
ES	15.5	32.1	60.9	5.2	45.5
FR	26.8	23.0	34.4	4.2	29.2
IT	25.0	15.3	39.0	1.5	24.8
CY	:	:	:	:	28.7
LV	:	:	:	:	9.6
LT	10.0	11.8	26.1	0.2	54.5
LU	32.5	11.5	44.1	1.7	:
HU	:	:	:	:	4.3
MT	26.4	22.9	33.0	2.5	39.1
NL	19.1	18.6	42.4	1.4	23.8
AT	18.2	18.7	57.0	1.2	11.8
PL	6.6	19.8	48.1	0.1	10.0
PT	18.4	29.8	44.2	3.1	55.3
RO	:	:	:	:	3.2
SI	:	:	:	:	7.5
SK	:	:	:	:	6.5
FI	18.8	16.2	33.7	0.4	30.6
SE	23.8	13.9	36.1	1.1	27.7
UK	21.1	29.8	21.6	6.4	21.2

(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Consumption of dairy products and eggs are presented in Figure 5.4 and Table 5.4: average per capita apparent consumption of milk, cheese and butter in the EU was just over 100 kg, of which more than 80 % was accounted for by drinking milk. Finland, Ireland and Sweden recorded the highest average apparent consumption of drinking milk, all in excess of 130 kg per capita. The lowest figure was in Latvia (32 kg), equivalent to just one fifth of the level in Finland. Apparent consumption of cheese was highest in Luxembourg, followed by Greece, both with an average per capita consumption above 25 kg. Slovakia and Hungary had the lowest apparent consumption of cheese, just over 6 kg per capita. Luxembourg, France, Finland and Germany recorded the highest levels of apparent consumption of butter, all in excess of 6 kg per capita. Several southern Member States recorded low apparent butter consumption, with Spain, Malta and Greece all averaging 1 kg per capita or less, although Hungary was lowest in this ranking with an average of 0.8 kg. Unlike the dairy products shown, the apparent consumption of eggs did not vary greatly between Member States, ranging from an average of 9 kg per capita in Portugal and Finland to 18 kg per capita in Spain.

Figure 5.4: Gross human apparent consumption per capita (availability for human consumption), EU average, 2007 (1) (kg)



(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Table 5.4: Gross human apparent consumption per capita (availability for human consumption), 2007 (kg)

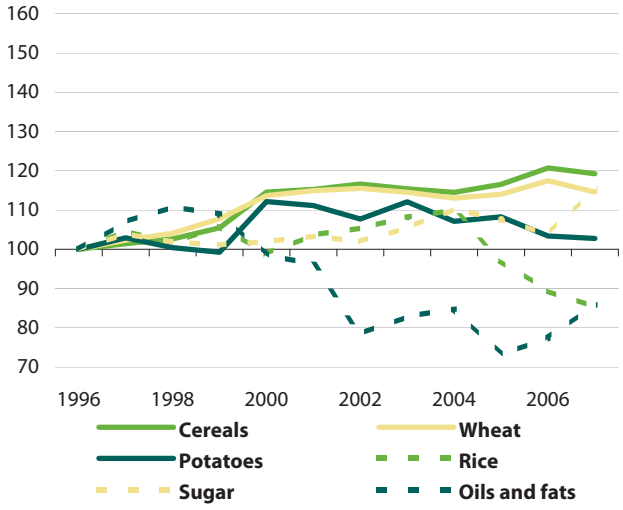
	Drinking milk	Butter	Cheese	Eggs
EU (1)	82.5	4.2	16.5	13.1
BE	69.2	5.1	18.9	12.7
BG	:	:	:	:
CZ	51.5	4.6	13.1	:
DK	99.8	1.8	23.2	17.0
DE	64.1	6.4	20.4	12.7
EE	112.8	2.7	15.3	:
IE	147.2	2.9	8.3	10.9
EL	65.0	0.9	25.7	10.3
ES	103.8	1.0	10.1	18.0
FR	70.2	7.7	23.4	15.2
IT	57.7	2.8	21.0	11.1
CY	115.2	2.0	16.4	:
LV	31.6	2.3	11.1	:
LT	95.7	2.8	12.7	:
LU	56.9	8.4	29.8	:
HU	64.4	0.8	6.1	:
MT	75.4	0.9	21.1	:
NL	79.4	:	21.5	13.5
AT	77.5	4.8	17.6	14.2
PL	93.7	3.5	12.8	:
PT	91.6	1.7	9.9	8.5
RO	:	:	:	:
SI	:	1.2	11.4	:
SK	:	2.4	6.4	:
FI	156.8	7.0	18.8	9.3
SE	131.2	4.4	17.2	12.1
UK	117.2	3.3	10.0	11.2

(1) Average of available countries using previous reference periods when no data were available for 2007.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

A time-series of average apparent consumption per capita is shown in Figures 5.5 and 5.6 – note that all of the figures use the same scale for ease of comparison. Apparent consumption of vegetable oils and fats fell significantly between 1999 and 2002, while apparent rice consumption fell between 2004 and 2006. The developments of apparent consumption for potatoes, sugar and wheat were, in comparison, relatively stable, after a period of growth between 1998 and 2000. In contrast, the development of consumption for fruit crops was more volatile, particularly for oranges and tomatoes. Apparent consumption of meat and fish products was generally stable, although a downward trend for sheep and goat meat can be noted, as well as a sharp fall (followed by a rebound) of poultry meat consumption in 2003. Apparent consumption of dairy products and eggs was also relatively stable over the period observed, with the strongest trend being an increased consumption of cheese.

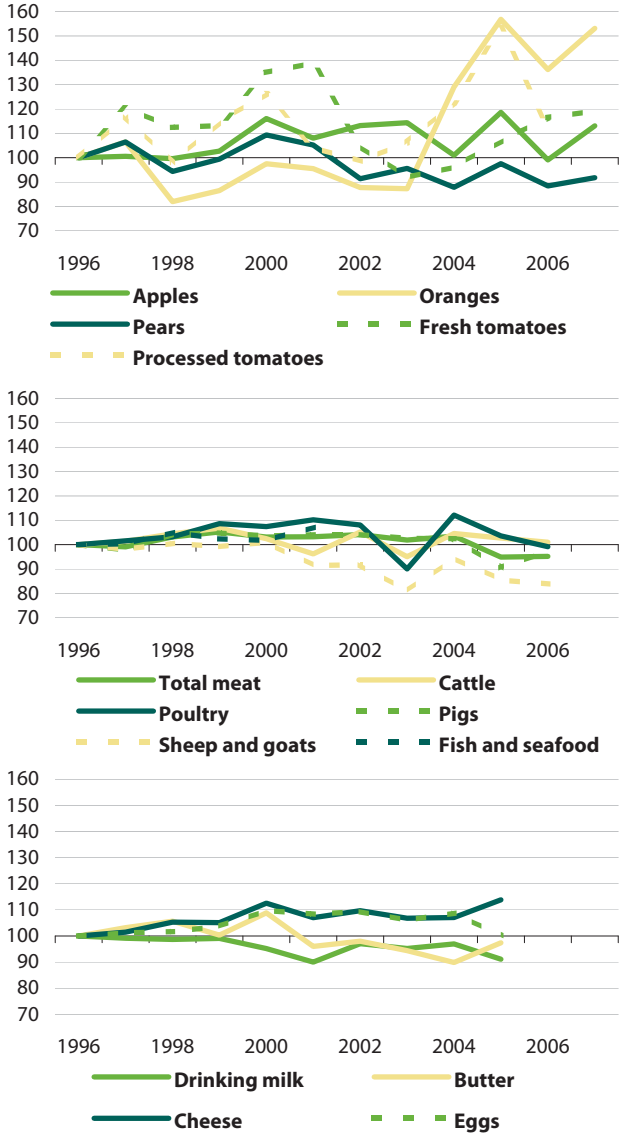
Figure 5.5: Gross human apparent consumption per capita (availability for human consumption), EU average (1) (1996=100)



(1) EU average is based on the available countries for each reference period.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Figure 5.6: Gross human apparent consumption per capita (availability for human consumption), EU average (1) (1996=100)



(1) EU average is based on the available countries for each reference period.

Source: Eurostat (Food: From farm to fork statistics, FOOD_CH_CONCAP, and Population statistics, DEMO_PJAN)

Prices

Prices of products in different countries could be compared simply by converting them into a common currency using ordinary exchange rates. Purchasing power standards (PPS) are a type of exchange rate constructed to take account of price level differences between countries. They are therefore more suitable for international

Table 5.5: Comparative price levels indices, food products, 2006 (EU-27=100)

	Food	Bread & cereals	Meat	Fish	Milk, cheese & eggs	Oils & fats	Fruit, veg. & potatoes
EU-27	100.0	100.0	100.0	100.0	100.0	100.0	100.0
BE	111.1	109.9	122.7	127.7	109.8	110.9	104.2
BG	55.1	42.1	47.7	62.3	83.7	95.2	49.1
CZ	67.7	61.4	60.0	75.9	80.5	82.7	63.7
DK	138.9	150.1	148.8	137.0	116.6	135.0	129.2
DE	105.8	107.8	118.3	120.5	87.2	88.4	115.7
EE	74.1	69.9	64.4	72.7	79.6	88.9	82.2
IE	124.5	121.3	129.0	122.8	127.3	97.8	130.9
EL	96.7	95.0	90.8	100.6	138.8	118.2	72.0
ES	92.6	112.2	81.3	88.6	96.9	88.6	94.4
FR	107.2	103.7	121.8	106.1	100.6	107.0	107.9
IT	115.6	109.5	118.2	121.6	126.4	112.4	114.4
CY	103.8	108.3	80.4	141.2	139.8	133.5	89.1
LV	68.0	59.4	57.7	71.1	75.5	94.5	73.0
LT	63.0	61.6	50.3	56.6	75.6	90.6	67.7
LU	116.6	120.1	119.6	110.0	112.5	112.4	130.5
HU	70.0	61.0	65.2	75.3	83.7	89.7	64.4
MT	81.0	76.6	69.1	82.2	111.7	97.6	70.0
NL	89.0	89.6	105.3	114.5	78.6	66.3	89.2
AT	111.5	126.4	121.2	111.3	98.0	114.8	106.5
PL	64.7	59.9	52.5	67.2	67.5	82.7	69.4
PT	87.4	95.8	82.2	70.1	106.1	97.0	79.1
RO	69.6	56.7	60.3	84.2	95.8	96.3	69.7
SI	87.6	93.5	82.9	101.3	83.6	105.9	85.6
SK	65.8	56.2	58.1	68.3	75.6	99.8	62.0
FI	119.5	141.4	118.9	110.4	110.5	118.4	123.1
SE	119.2	131.9	132.9	108.6	104.8	118.4	122.5
UK	113.0	103.5	126.6	90.5	115.9	104.4	119.8
HR	87.0	87.6	85.5	84.5	89.0	103.3	77.8
MK	55.2	55.0	52.6	64.0	62.9	80.0	43.4
TR	82.5	70.0	78.3	75.0	117.5	93.1	70.6
IS	162.7	188.1	189.2	112.1	149.5	139.3	152.8
NO	158.8	164.3	181.6	127.3	160.6	155.8	142.3
CH	145.8	142.1	195.0	141.8	127.1	162.7	130.3

Source: Eurostat (Purchasing power parities, PRC_PPP_IND)

comparisons. By comparing these with regular exchange rates, a price level index (PLI) can be constructed that reflects the relative price level differences between the countries. Price level indices compiled for 2006 show that food products were cheaper in the eastern Member States, and were particularly expensive in the Nordic countries and Ireland. Price levels for food in the most expensive Member State, Denmark, were 2.5 times as high as in the least expensive, namely Bulgaria.

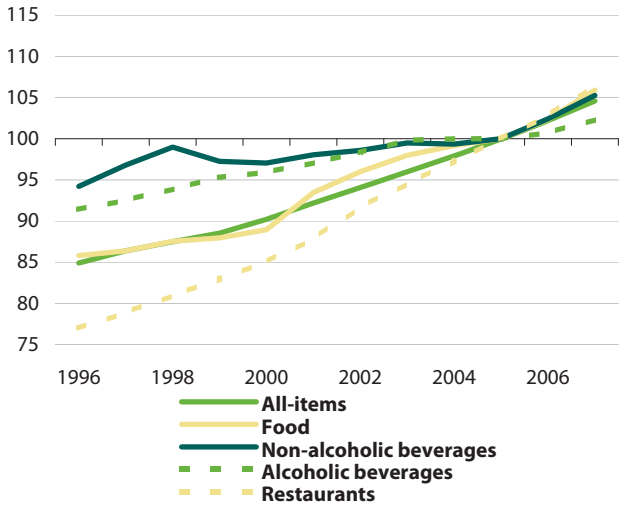
Table 5.6: Comparative price level indices, beverages, 2006 (EU-27=100)

	Food & non-alcoholic beverages	Non-alcoholic beverages	Alcoholic beverages
EU-27	100.0	100.0	100.0
BE	110.1	101.2	97.4
BG	56.2	72.4	68.9
CZ	68.9	81.6	85.3
DK	141.8	169.5	127.4
DE	105.4	102.9	81.7
EE	75.6	90.9	88.9
IE	125.3	134.8	179.5
EL	98.1	118.0	109.3
ES	92.3	87.8	81.0
FR	104.8	83.5	91.0
IT	115.1	109.2	112.7
CY	106.9	141.8	117.9
LV	69.5	89.0	91.9
LT	64.2	79.1	78.8
LU	114.9	104.4	87.1
HU	70.7	77.4	76.3
MT	83.5	108.3	116.5
NL	88.6	83.6	92.6
AT	109.9	97.5	81.0
PL	66.2	84.5	90.9
PT	87.8	93.4	98.3
RO	70.6	82.7	90.0
SI	87.5	87.5	86.7
SK	66.7	76.6	71.7
FI	120.7	132.5	169.6
SE	118.9	118.1	144.1
UK	113.7	121.3	151.7
HR	88.4	107.3	112.9
MK	56.1	67.3	64.9
TR	83.7	100.7	175.0
IS	163.9	177.1	225.7
NO	158.5	160.4	227.3
CH	141.8	104.6	95.6

Source: Eurostat (Purchasing power parities, PRC_PPP_IND, FOOD_PD_PRC1)

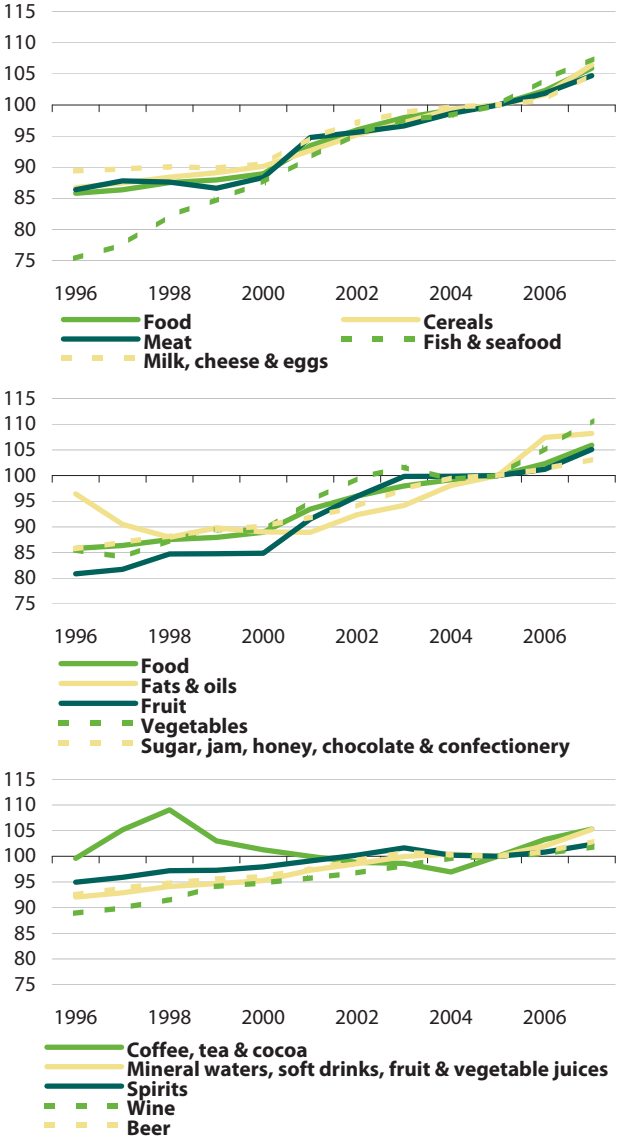
Within the EU, the harmonised index of consumer prices for food rose by an average of 1.9 % between 1996 and 2007, very close to the overall (all-items) inflation rate over the same period. The price of alcoholic and non-alcoholic beverages rose less quickly, both by an annual average of about 1.0 %, while restaurant prices rose faster, averaging 3.0 % per annum. The latest annual inflation rates show food prices grew by 3.5 % in 2007, compared with an overall inflation rate of 2.3 %. At the time of writing, this trend was even more evident, as rising food prices and security of supply across the globe have become major political issues, leading to export bans in some countries, and increased concerns about food prices and supply.

Figure 5.7: Evolution of harmonised indices of consumer prices, EU (1)
(2005=100)



(1) 1996-1998, estimates; EU-15 from 1996-2004, EU-25 from 2005-2006, EU-27 for 2007.
Source: Eurostat (Food: From farm to fork statistics, FOOD_PD_PRC2, PRC_HICP_AIND)

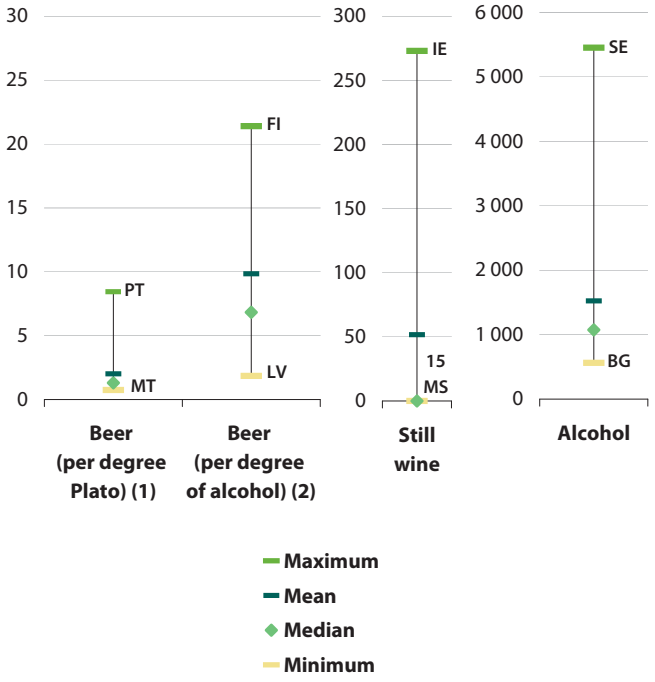
Figure 5.8: Evolution of harmonised indices of consumer prices, EU (1)
(2005=100)



(1) 1996-1998, estimates; EU-15 from 1996-2004, EU-25 from 2005-2006, EU-27 for 2007.
Source: Eurostat (Food: From farm to fork statistics, FOOD_PD_PRC2)

Many Member States impose excise duties on alcoholic beverages, and these vary greatly as can be seen from Figure 5.9. In the case of wine, currently 15 Member States do not impose any excise duty, and all of these are producers of wine. The highest excise duties on wine are imposed by countries with relatively small or no domestic wine production, the Nordic and Baltic Member States, Poland, Ireland, the United Kingdom, Belgium and the Netherlands. In contrast, all Member States apply an excise duty on beer. As well as reflecting national traditions, high levels of excise duty may reflect concerns about excessive alcohol consumption, and/or a government's desire to raise tax revenue in this way.

Figure 5.9: Excise duty per hectolitre, January 2008 (EUR)
(EUR)



(1) <=7° Plato for the Netherlands; <=8° Plato for Portugal; only applicable in Belgium, Bulgaria, the Czech Republic, Germany, Greece, Spain, Italy, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania and Slovakia.
(2) Only applicable in Denmark, Estonia, Ireland, France, Cyprus, Latvia, Lithuania, Slovenia, Finland, Sweden and the United Kingdom.

Source: Directorate-General for Taxation and Customs Union, European Commission (http://ec.europa.eu/taxation_customs/resources/documents/taxation/excise_duties/alcoholic_beverages/rates/excise_duties-part_I_alcohol-en.pdf)

Whereas the individual governments of Member States have a relatively large degree of freedom in setting excise duties, VAT rates are less varied between Member States. There is agreement on a minimum rate of 15 % for VAT on most goods and services: a higher standard rate is allowed within certain limits as are lower rates and exemptions for some items.

Table 5.7: VAT rates generally applied, January 2008 (%)
(%)

	Foodstuffs	Mineral water/ fruit juices	Beer	Wine	Restau-rants
BE	6/12/21	6.0	21.0	21.0	21.0
BG	20.0	20.0	20.0	20.0	20.0
CZ	5.0	5.0	19.0	19.0	19.0
DK	25.0	25.0	25.0	25.0	25.0
DE	7/19	19.0	19.0	19.0	19.0
EE	18.0	18.0	18.0	18.0	18.0
IE	0/4.8/13.5	21.0	21.0	21.0	13.5
EL	9.0	9.0	19.0	19.0	9.0
ES	4/7	7.0	16.0	16.0	7.0
FR	5.5/19.6	5.5	19.6	19.6	13.5
IT	4/10	20.0	20.0	20.0	10.0
CY	0/5/15	15.0	15.0	15.0	8.0
LV	18/5	18.0	18.0	18.0	18.0
LT	5/18	18.0	18.0	18.0	18.0
LU	3.0	3.0	15.0	12.0	3.0
HU	20.0	20.0	20.0	20.0	20.0
MT	0.0	18.0	18.0	18.0	18.0
NL	6.0	6.0	19.0	19.0	6.0
AT	10.0	20.0	20.0	20.0	10.0
PL	3/7/22	22.0	22.0	22.0	7.0
PT	5/12/21	5.0	21.0	12.0	12.0
RO	19.0	19.0	19.0	19.0	19.0
SI	8.5	8.5	20.0	20.0	20.0
SK	19.0	19.0	19.0	19.0	19.0
FI	17.0	17.0	22.0	22.0	22.0
SE	12/25	12.0	25.0	25.0	25.0
UK	0/17.5	17.5	17.5	17.5	17.5

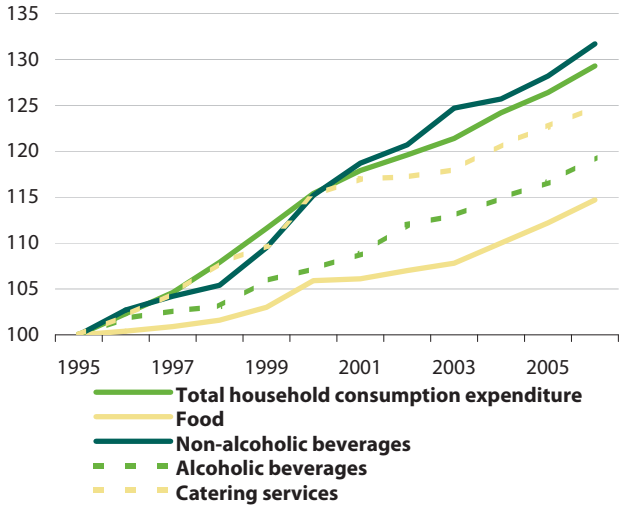
Source: Directorate-General for Taxation and Customs Union, European Commission (http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf)

Consumption expenditure

The development of household consumption expenditure between 1995 and 2006 can be seen in Figure 5.10; the indices are based on constant price data and so are not affected by inflation, but as they represent overall expenditure (rather than per capita) they may be influenced by changes in the size of populations. Overall total household consumption expenditure rose by 29.3 % during this 11-year period, while expenditure on non-alcoholic beverages rose slightly faster (31.7 %) and catering services slightly slower (24.8 %), with expenditure on food and alcoholic beverages rising slower still.

Household budget survey (HBS) data is presented in Figure 5.11 in PPS rather than euro and, as such the analysis is based on an adjustment to comparable price levels. In 2005, annual expenditure on food and beverages (including catering services) averaged PPS 4 900 per household within the EU-27. National averages ranged from less than PPS 3 000 per household in Romania, Bulgaria, Hungary, Estonia and Poland, to over PPS 7 500 per household

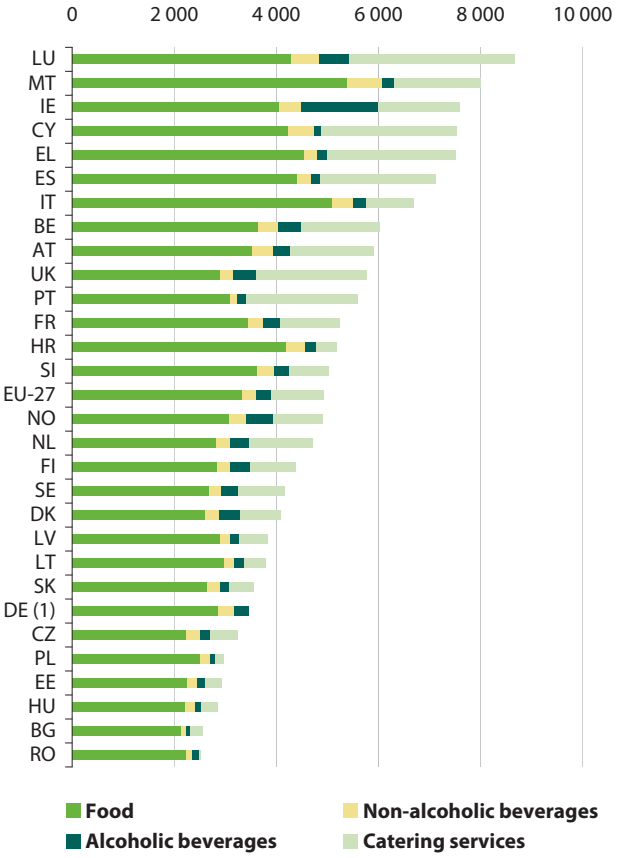
Figure 5.10: Evolution of household consumption expenditure, volumes, EU-27
(1995=100)



Source: Eurostat (National Accounts detailed breakdowns, NAMA_CO3_K)

in Luxembourg, Malta, Ireland, Cyprus and Greece. As can be seen from Figure 5.11, catering services generally accounted for a large proportion of average household expenditure on food and beverages among Member States with higher total expenditure on food and beverages, with Italy a notable exception. Another value of note was the level of Irish expenditure on alcoholic beverages, averaging PPS 1 500 per household, a little over two and a half times the next highest figure.

Figure 5.11: Mean consumption expenditure on food and beverages, 2005
(PPS per household)



(1) Catering services, not available.

Source: Eurostat (Consumption expenditure of private households, HBS_EXP_T121)

Food and beverages (including catering services) accounted for a combined 23.2 % of household consumption expenditure in the EU-27 in 2006, according to the weights used for the harmonised index of consumer prices. An analysis of this total is shown in Tables 5.8 and 5.9, with some 14.0 % of expenditure on food, 1.3 % on non-alcoholic beverages, 1.8 % on alcoholic beverages, and 8.0 % on catering services. With the exception of Bulgaria, among the food categories shown in these tables meat accounted for the largest share of household consumption expenditure, averaging 3.6 % across the EU and reaching a high of 9.1 % in Romania. Of the food categories,

Table 5.8: Structure of consumption expenditure, 2007 (%)

	Food, bev. & catering serv.	Bread & cereals	Meat	Fish & seafood	Milk, cheese & eggs	Oils & fats	Fruit	Vegetables
EU-27	23.2	2.5	3.6	1.0	2.1	0.5	1.1	1.6
BE	24.0	3.1	4.6	1.0	2.0	0.4	1.1	1.6
BG	33.0	4.9	4.4	0.5	3.7	1.0	1.2	3.6
CZ	24.1	2.9	4.1	0.5	3.1	0.8	1.3	1.5
DK	19.9	2.3	3.1	0.6	2.0	0.3	1.0	1.7
DE	15.7	1.9	2.5	0.4	1.5	0.3	1.0	1.1
EE	26.5	3.0	5.2	0.9	3.4	0.6	1.2	2.0
IE	27.7	2.3	3.0	0.4	1.5	0.3	1.0	1.8
EL	32.4	2.2	3.8	1.3	3.1	1.6	1.3	2.0
ES	35.4	3.3	5.5	3.1	3.0	0.9	1.9	1.9
FR	22.2	2.3	4.4	1.3	2.3	0.4	1.1	1.5
IT	25.9	3.3	4.0	1.2	2.4	0.9	1.2	1.9
CY	28.6	2.9	4.0	0.7	3.1	0.6	1.5	2.3
LV	31.4	4.3	6.5	1.2	4.3	0.9	1.6	2.1
LT	32.3	4.8	6.8	1.6	3.3	1.0	1.3	1.8
LU	17.7	2.1	2.2	0.6	1.5	0.3	0.7	0.9
HU	25.9	3.3	3.9	0.1	3.6	1.0	1.2	1.8
MT	24.2	3.0	3.6	0.9	2.4	0.5	1.5	1.9
NL	18.7	2.5	2.6	0.5	1.7	0.2	1.0	1.3
AT	22.9	2.2	2.8	0.3	1.9	0.4	0.9	1.3
PL	22.6	3.5	5.3	0.6	2.8	1.1	0.9	2.0
PT	31.4	3.0	4.8	3.2	2.2	0.8	1.5	1.9
RO	37.6	8.4	9.1	1.1	5.8	1.7	1.9	3.7
SI	23.3	2.9	3.8	0.5	2.4	0.6	1.1	1.9
SK	24.7	2.3	4.2	0.2	3.0	0.8	1.1	1.8
FI	22.8	2.7	3.1	0.6	2.7	0.3	1.2	1.5
SE	20.2	2.2	2.7	0.9	2.3	0.4	1.1	1.4
UK	22.2	1.5	2.1	0.4	1.2	0.2	0.9	1.4

Source: Eurostat (Harmonised indices of consumer prices - Item weights, PRC_HICP_INW)

either bread and cereals, or milk, cheese and eggs had generally the next largest shares, averaging 2.5 % and 2.1 % across the EU-27 respectively; Portugal was an exception as the share of household consumption expenditure on fish and seafood (3.2 %) was higher than both of these categories, while in Spain the share of expenditure on fish and seafood (3.1 %) was also higher than on milk, cheese and eggs. Across the EU as a whole, the share of household consumption expenditure on alcoholic beverages was fairly evenly split between spirits, wine and beer, although there were large variations in some Member States.

Table 5.9: Structure of consumption expenditure, 2007 (%)

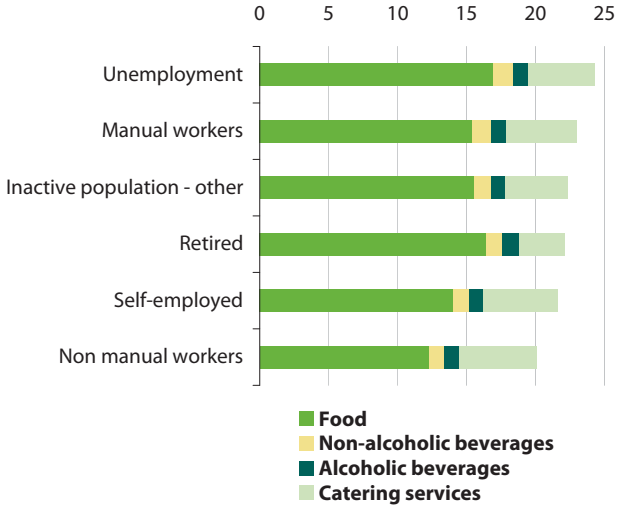
	Sugar, jam, honey, choc. & confec.	Food prod. n.e.c.	Coffee, tea & cocoa	Min. water, soft drinks, fruit & veg. juices	Spirits	Wine	Beer	Catering serv.
EU-27	1.1	0.4	0.4	0.9	0.5	0.7	0.6	8.0
BE	1.1	0.6	0.4	1.3	0.2	1.1	0.5	6.7
BG	2.4	0.5	0.4	0.7	0.8	0.2	0.4	9.8
CZ	1.1	0.7	0.6	1.2	1.5	0.8	2.2	6.3
DK	1.6	0.5	0.4	1.3	0.4	1.3	0.9	5.0
DE	0.9	0.4	0.5	0.9	0.2	0.5	1.1	4.2
EE	1.5	0.5	0.7	0.8	2.6	1.8	1.9	6.7
IE	1.0	0.9	0.3	0.8	0.7	1.7	0.9	14.6
EL	1.0	0.1	0.2	0.6	0.3	0.3	0.2	15.2
ES	0.7	0.4	0.3	0.9	0.2	0.4	0.3	13.5
FR	1.0	0.6	0.5	0.9	0.5	1.0	0.2	5.8
IT	1.2	0.0	0.2	1.0	0.2	0.7	0.1	8.6
CY	0.9	0.3	0.3	1.6	0.2	0.3	0.5	10.4
LV	1.8	0.6	1.1	0.7	1.8	0.8	1.4	6.4
LT	2.0	0.9	1.0	1.1	2.6	1.3	1.7	6.7
LU	0.8	0.4	0.4	1.1	1.2	1.1	0.6	6.8
HU	1.2	0.7	0.9	1.7	1.7	0.8	1.9	6.3
MT	0.8	0.4	0.5	1.6	0.3	0.7	0.8	7.1
NL	1.1	1.2	0.3	0.7	0.4	0.7	0.5	5.5
AT	1.0	0.4	0.4	0.9	0.1	0.5	0.5	10.5
PL	1.4	0.7	0.7	0.9	1.9	0.7	2.0	2.7
PT	0.5	0.2	0.2	0.5	0.1	0.7	0.2	12.6
RO	1.8	0.6	1.0	1.3	0.3	0.3	0.7	1.1
SI	1.3	0.6	0.6	1.2	0.4	0.7	0.8	6.4
SK	1.1	0.5	0.7	1.1	0.9	0.5	1.5	7.9
FI	1.4	0.4	0.4	1.0	1.1	1.3	1.6	7.4
SE	1.7	0.6	0.5	1.0	0.6	1.2	0.7	5.6
UK	1.1	0.2	0.3	1.0	0.5	0.9	0.4	11.9

Source: Eurostat (Harmonised indices of consumer prices - Item weights, PRC_HICP_INW)

Food and beverages are to a large extent essential items of expenditure and as such it can be expected that, once a certain level of expenditure has been achieved, the level of expenditure does not increase greatly as income rises; there may however be some product substitution with better quality products purchased as income rises, and a greater consumption of services (catering services, for example). Figure 5.12 shows the percentage composition of consumption expenditure for households based on the socio-economic category of the head of the household. The highest shares for food are recorded for the unemployed and retired persons, who overall are likely to be on low incomes. The lowest shares of household consumption expenditure devoted to food were recorded for the self-employed and non-manual workers. Alcoholic beverages showed the least variation in their share of household consumption expenditure (between 1.0 % and 1.2 %) across these categories, while catering services showed the greatest (between 3.3 % and 5.6 %).

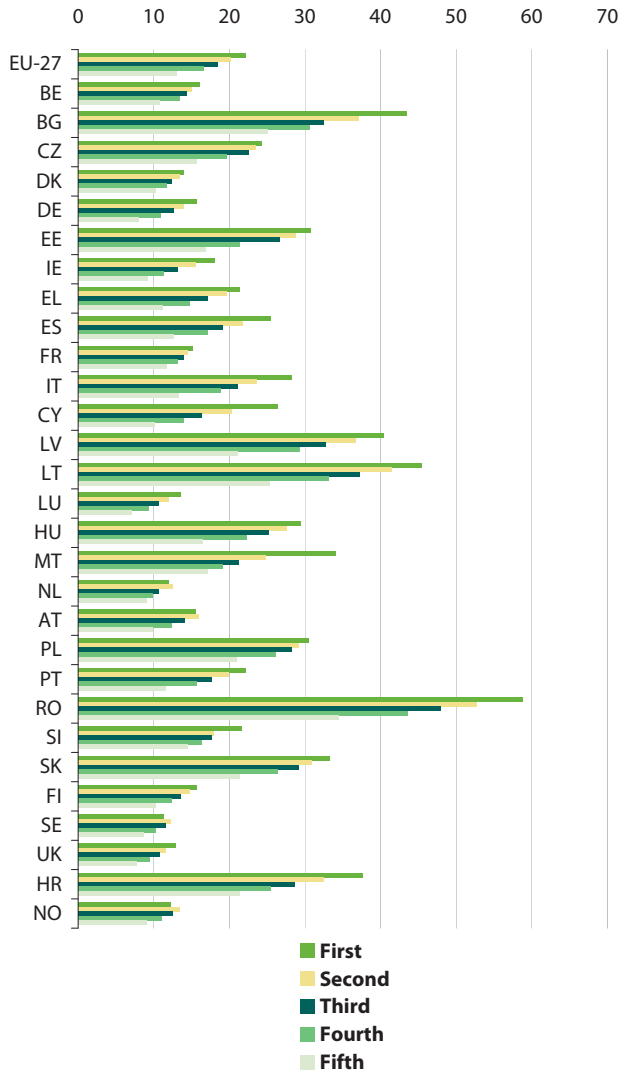
A more direct analysis of income effects is shown in Figure 5.13. As expected, the share of expenditure on food and beverages appears inversely related to income, and for the EU-27 the proportion of household expenditure allocated to food and non-alcoholic beverages was around two thirds higher for households in the lowest income quintile than those in the highest quintile.

Figure 5.12: Structure of consumption expenditure by socio-economic category of head of household, EU-27, 2005 (%)



Source: Eurostat (Consumption expenditure of private households, HBS_STR_T221)

Figure 5.13: Structure of consumption expenditure by income quintile, food and non-alcoholic beverages, 2005
(%)



Source: Eurostat (Consumption expenditure of private households, HBS_STR_T223)

Consumer externalities

Guideline daily amounts (GDAs) are guides for the total amount of energy and nutrients that a typical healthy adult should be eating in a day, including fats, carbohydrates, proteins, and fibre, as well as sodium (salt) – the GDAs for women are shown in Table 5.10 along with recommended daily allowances (RDAs) for vitamins and minerals. It is hoped that such guidelines, combined with product labelling, can help consumers to understand better how individual products contribute to achieving an overall balanced diet. For any individual, energy and nutrient requirements may be higher or lower than the published GDAs, based on their gender, age, weight, level of physical activity, and other factors: GDAs are not strict targets for each individual.

Table 5.10: Female guideline daily amounts (GDAs) based on a daily intake of 2 000 kcal (1)

Energy	2 000 kcal (calories)
Total fat	<= 70g
Saturated fat	<= 20g
Carbohydrates	270g
Total sugars	<= 90g
Protein	50g
Fibre	>= 25g
Sodium (salt)	<= 2.4g (6g)
Vitamin A	800µg
Vitamin D	5µg
Vitamin E	10mg
Vitamin C	60mg
Thiamin	1.4mg
Riboflavin	1.6mg
Niacin	18mg
Vitamin B6	2mg
Folic acid	200µg
Vitamin B12	1µg
Blotin	0.15mg
Pantothenic acid	6mg
Calcium	800mg
Phosphorus	800mg
Iron	14mg
Magnesium	300mg
Zinc	15mg
Iodine	150µg

(1) mg = milligram = 1/1 000 of a gram; µg = microgram = 1/1 000 000 of a gram.

Source: The European Food Information Council (EUFIC) (http://www.eufic.org/article/en/health-lifestyle/diet-weight-control/artid/Making_sense_of_Guideline_Daily_Amounts) and Council Directive 90/496/EEC of 24 September 1990 on nutrition labelling for foodstuffs

As well as risking nutritional deficiencies, a poor diet (as well as other factors, for example, a lack of exercise or hereditary factors) may lead to weight problems. The direct health problems of being overweight or obese may be compounded by the costs arising from the treatment of weight-related illnesses. Obesity causes a range of chronic diseases, including diabetes, cancers and heart disease. The body mass index (BMI) is defined as a person's weight in kilograms divided by the square of their height (kg/(m²)). Table 5.11 shows the proportion of the population classified as overweight (BMI greater than 25) or obese (BMI greater than 30). The proportion of obese or overweight persons generally rises to a peak between the ages of 55 and 64 or between 65 and 74, before dropping off again.

Table 5.11: Proportion of the population who are either overweight or obese, by age, 2004 (1)
(%)

	15-24	25-34	35-44	45-54	55-64
BE	12.7	33.3	39.6	50.1	57.6
BG	17.2	32.8	46.5	56.8	60.3
CZ	16.6	35.5	47.2	66.7	78.4
DK	19.4	34.3	40.6	49.2	54.4
DE	26.5	42.7	55.3	68.1	76.8
EE	11.5	28.2	41.8	59.2	68.5
IE	25.8	38.2	52.6	58.3	59.9
EL	21.2	36.3	55.4	63.9	69.9
ES	17.3	35.8	47.6	58.5	67.9
FR	10.6	27.9	35.6	44.5	55.0
IT	12.6	24.3	35.9	49.7	57.6
CY	16.9	33.7	43.1	58.5	63.6
LV	10.0	32.0	46.7	59.8	68.0
LT	20.0	28.4	43.8	63.7	73.1
LU	:	:	:	:	:
HU	21.1	39.6	54.2	62.0	69.3
MT	33.9	47.8	58.5	68.8	68.3
NL	13.5	35.1	41.4	52.3	56.7
AT	17.1	35.3	43.3	54.7	59.0
PL	11.6	32.4	47.9	60.4	66.2
PT	19.7	36.4	51.0	61.1	63.1
RO	12.5	32.9	47.9	57.8	56.1
SI	15.7	32.0	52.6	59.6	69.7
SK	10.3	36.6	48.5	66.8	77.4
FI	17.9	37.8	46.6	54.5	60.4
SE	18.2	37.0	44.9	48.0	57.8
UK	31.1	53.1	63.0	68.9	69.7
IS	27.2	43.8	50.3	59.3	65.5
NO	14.2	28.7	35.4	36.6	41.5
CH	11.0	27.9	35.4	44.5	49.2

(1) Proportion of the population with a body mass index (BMI) of 25 or more.

Source: Eurostat (Health status: indicators from surveys (SILC, HIS, LFS), HLTH_IS_BMIA)

Foodborne diseases pose a threat to human health and the well-being of individuals and their dependents. There are a small number of diseases which have a high incidence rate, most notably Campylobacteriosis and Salmonellosis, and a range of much less common diseases, for example, variant Creutzfeldt-Jakob Disease (vCJD) which has been strongly linked to contaminated meat products. Incidence rates vary greatly between countries and reference years, as can clearly be seen from Table 5.13, although it should be noted that there may be under-reporting of diseases, and the extent of this may also vary between countries.

According to the World Health Organisation new foodborne disease threats occur due to increased travel and trade, microbial adaptation and changes in the food production system, as well as human demographics and behaviour.

Table 5.12: Number of cases and incidence rates of various foodborne and waterborne diseases, 2005 (1)

	EU-25		Member States	
	Confirmed cases (units)	Incidence rate (per 100 000 inhab.)	Highest incidence rate	Incidence rate (per 100 000 inhab.)
Botulism	147	0.0	LT	0.2
Brucellosis	1 428	0.3	PT	1.4
Campylobacteriosis	197 802	45.0	CZ	296.2
Cholera (2)	34	0.0	BE	0.1
Cryptosporidiosis	7 960	2.8	IE	13.8
Echinococcosis	336	0.1	LT	0.4
Giardiasis	14 637	5.2	EE	24.3
Listeriosis	1 476	0.3	DK	0.9
Salmonellosis	180 303	39.1	CZ	322.2
Shigellosis	7 255	1.8	LT	13.4
Trichinellosis	153	0.0	LV	2.1
Tularaemia	489	0.1	SE	2.7
Variant Creutzfeldt-Jakob disease (vCJD)	14	0.0	SI	0.2
Verocytotoxinogenic Escherichia coli (VTEC)	5 199	1.2	CZ	16.7
Yersiniosis (non-pestis)	9 535	2.3	LT	14.6

(1) Some of these diseases may be transmitted from person to person, as well as through contaminated food or water; note the figures refer to the latest reference year and that these diseases are occur as outbreaks, hence, their incidence may fluctuate considerably from one year to the next.
(2) Cases may have been imported.

Source: European Centre for Disease Prevention and Control (ECDC), The First European Communicable Disease Epidemiological Report, December 2007 (http://ecdc.europa.eu/pdf/ECDC_epi_report_2007.pdf)

Table 5.13: Microbiological foodborne diseases, 2006

	Number of outbreaks (units)	Number of cases (units)	Incidence rate (per 100 000 inhabitants)	*of which,* salmonellosis (per 100 000 inhabitants)
EU-27 (1)	:	:	89.7	35.9
BE (2)	116.0	1 038.0	10.0	91.4
BG	:	:	:	13.8
CZ	165.0	59 002.0	583.7	248.3
DK (3)	35.0	7 988.0	147.5	30.4
DE (4)	:	52 575.0	63.6	63.6
EE	2.0	111.0	8.3	33.7
IE (5)	13.0	1 200.0	29.7	10.0
EL (3)	:	:	:	11.0
ES (3)	:	:	:	11.5
FR (2)	:	:	:	17.2
IT (3)	:	:	:	6.4
CY	:	:	:	12.8
LV	:	:	:	35.0
LT	207.0	1 014.0	29.9	104.8
LU	:	613.0	129.7	64.8
HU	172.0	6 857.0	68.1	96.8
MT	53.0	176.0	43.7	15.9
NL (2)	49.0	476.0	2.9	0.6
AT (3)	:	:	:	60.6
PL	:	:	:	34.7
PT (3)	:	:	:	4.0
RO (3)	:	2 426.0	11.2	3.0
SI	25.0	498.0	24.8	74.8
SK	57.0	20 484.0	379.3	161.4
FI	46.0	1 861.0	35.4	48.8
SE	:	:	:	44.7
UK (6)	:	78 797.0	131.7	22.8

(1) Incidence rate, 2005.
(2) Incidence of salmonellosis, 2004.
(3) 2005.
(4) Incidence of salmonellosis, 2005.
(5) Number of cases and total incidence rate, 2005; number of outbreaks, 2004.
(6) Number of cases and total incidence rate, 2004.

Source: European health for all database (http://data.euro.who.int/hfadb)

Even without accounting for food packaging, food scraps account for a significant part of household waste. Table 5.14 gives an idea of the degree of household waste from animal and plant products.

Table 5.14: Household animal and vegetal wastes, 2006

	Volume (1 000 tonnes)	Share of total household waste (%)
BE	934.8	20.5
BG	:	:
CZ	108.7	3.1
DK	38.9	1.9
DE	7 676.5	22.3
EE	1.3	0.3
IE	538.7	27.2
EL	:	:
ES	10.0	0.0
FR	2 973.8	11.1
IT	:	:
CY	:	:
LV	:	:
LT	0.8	0.1
LU	62.5	33.2
HU	45.5	1.5
MT	1.8	1.8
NL	1 703.4	18.5
AT	661.3	18.2
PL	:	:
PT	:	:
RO	:	:
SI	25.2	2.4
SK	:	:
FI	95.1	8.1
SE	386.0	10.0
UK	3 244.4	10.4
IS (1)	11.0	7.8
NO	271.7	13.1

(1) 2004.

Source: Eurostat (Waste Statistics Regulation, ENV_WASGEN)

Consumer attitudes

As well as dealing with agricultural matters, the common (European) agricultural policy (CAP) is an important policy tool for rural and environmental development. Over time agricultural priorities have shifted; for example, concerns over food safety/health, and environmental and animal welfare concerns have become more prominent. From 2003, a phase of reform and transformation of the CAP began, moving towards a more market-orientated system, where financial support to farmers is also dependent on meeting food safety, quality, environmental, plant health, and animal health and welfare standards.

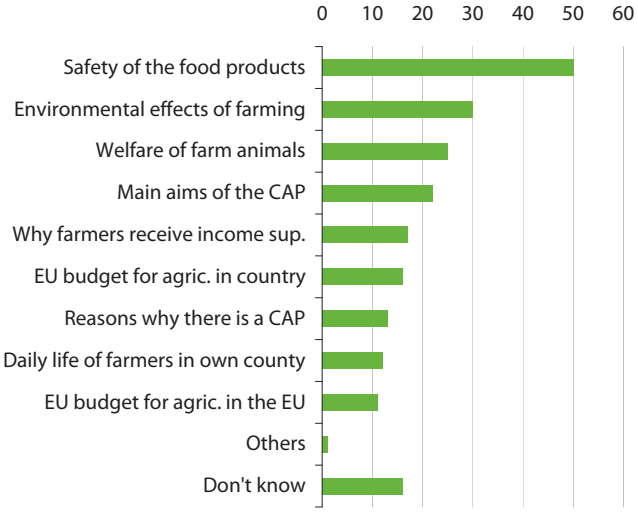
In 2006 a Eurobarometer survey studied consumers' attitudes towards agriculture and the CAP. Respondents were asked to name up to five priorities for the EU's agricultural policy, with the most commonly mentioned replies covering healthy/safe products, a fair standard of living for farmers, reasonable prices for consumers, and respect for the environment; security of supply, one of the original motivations for the CAP was last among of the list of priorities shown in Figure 5.14. Respondents' interest in receiving more information on agricultural topics was clearly focused on food safety, mentioned by half of all respondents, with environmental impacts and farm animal welfare the next most commonly cited items.

Figure 5.14: Priorities for European agricultural policy, EU-25, 2006 (1)
(%)

(1) Up to a maximum of five answers allowed.

Source: Europeans, Agriculture and the Common Agricultural Policy, Eurobarometer 276, November-December 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_276_en.pdf)

Figure 5.15: Agricultural topics on which the public would like more information, EU-25, 2006
(%)

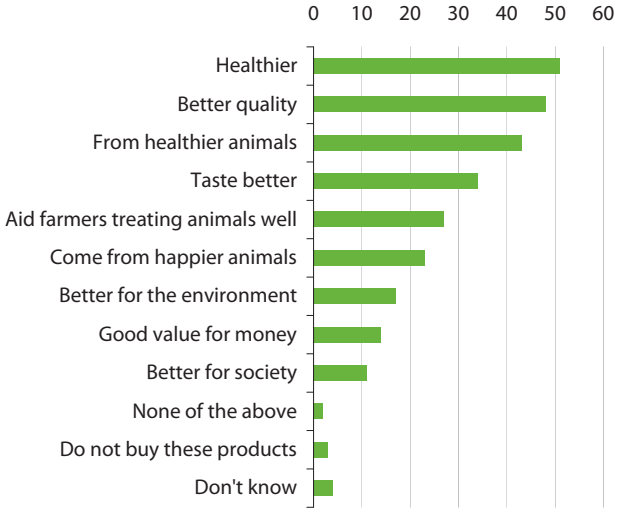


(1) Any number of answers allowed.

Source: Europeans, Agriculture and the Common Agricultural Policy, Eurobarometer 276, November-December 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_276_en.pdf)

Another Eurobarometer survey from earlier in 2006 focused specifically on animal welfare. Respondents were asked to provide up to two reasons why they would favour buying food products produced in a way that was more animal-friendly. Of the top four answers, three concerned the impact on consumers: namely, that the food would be healthier, of better quality or taste better; only the third ranked answer – that the food would come from healthier animals – concerned the animals themselves. The fifth most common answer was that increased purchases of products from animal-friendly production systems would help the farmers of such animals. Only 3 % of respondents said that they did not buy such products.

Figure 5.16: What would be the main reasons why you would buy food products produced in a more animal friendly way, EU-25, 2006 (1)
(%)



(1) Maximum of three answers allowed.

Source: Attitudes of EU citizens towards animal welfare, Eurobarometer 270, September-October 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_270_en.pdf)

The ability of consumers to make purchasing choices with respect to animal welfare is determined by the availability of information on the products they are buying. The same Eurobarometer survey addressed the issue of communicating to consumers the animal welfare/protection conditions under which food products had been sourced. The use of a written explanation or a logo were the two most common suggestions, each identified by more than one third of respondents.

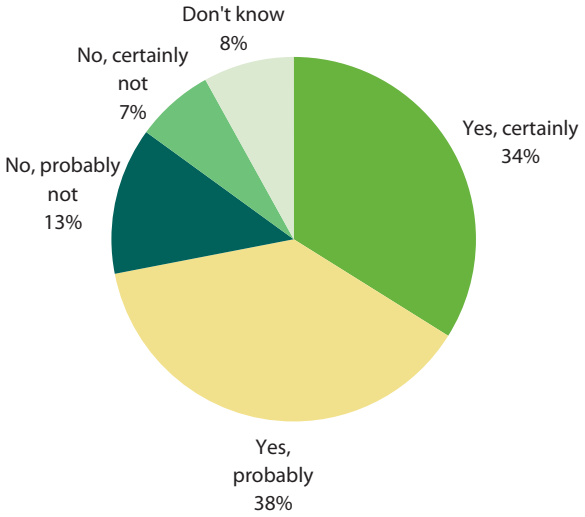
Figure 5.17: Which of the following would be for you the best way to identify the animal welfare/protection conditions under which food products are sourced, EU-25, 2006 (1)
(%)

(1) Maximum of two answers allowed.

Source: Attitudes of EU citizens towards animal welfare, Eurobarometer 270, September-October 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_270_en.pdf)

Consumers appear to accept that production costs may be higher to achieve higher levels of animal welfare. Over two thirds of respondents to a Eurobarometer survey in 2006 thought that farmers should be financially compensated for any such higher production costs, although the survey did not look at the issue of where the compensation should come from, for example, higher prices paid by consumers or subsidies.

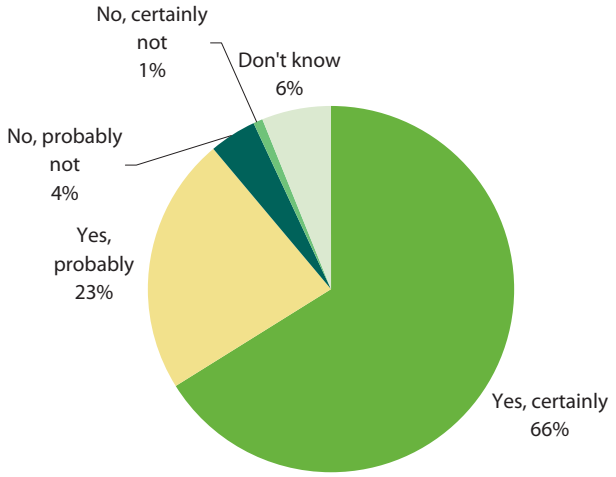
Figure 5.18: Do you believe that farmers should be financially compensated for any higher production costs linked to farming animals under more welfare-friendly conditions, EU-25, 2006 (%)



Source: Attitudes of EU citizens towards animal welfare, Eurobarometer 270, September-October 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_270_en.pdf)

A related question in the same survey looked at fair competition for traded food products. Nearly 90 % of respondents indicated that they thought that the same animal welfare/protection conditions should be respected for imported products as for those produced within the EU.

Figure 5.19: Do you believe that imported foods from outside the European Union should respect the same conditions of animal welfare/protection as those applied in the European Union, EU-25, 2006
(%)



Source: Attitudes of EU citizens towards animal welfare, Eurobarometer 270, September-October 2006 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_270_en.pdf)

An earlier Eurobarometer survey, carried out at the end of 2005, focused on issues linking health and food, as well as physical activity. A poor diet and lack of physical activity were among the main risk factors identified by respondents for various diseases. But what constitutes a healthy diet? Figure 5.20 shows the answers that this question provoked (respondents were allowed to give as many answers as they wished). The need for a balanced diet was reported by just over two thirds of respondents, a similar proportion as reported the need to eat more fruit and vegetables. Other factors raised by at least 10 % of respondents concerned the level of consumption of fat, sugar, salt, meat, fish and additives, while limiting the overall calorie intake was also mentioned.

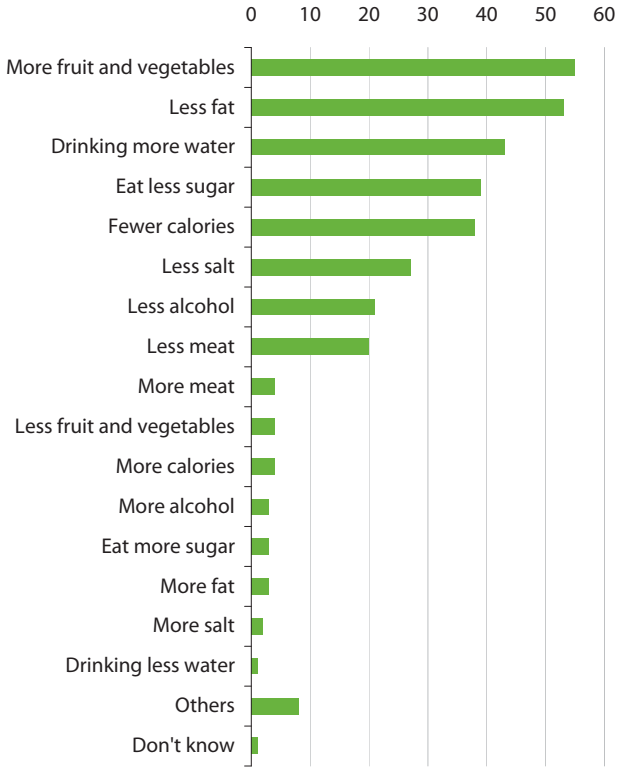
Figure 5.20: What do you think eating a healthy diet involves, EU-25, 2005 (1)
(%)

(1) Any number of answers allowed.

Source: Health and food, Eurobarometer 246, November-December 2005 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_246_en.pdf)

Follow-up questions asked respondents about changes they had made to their own diet in the previous twelve months. Around one fifth of respondents (22 %) said they had changed their diet, ranging from 15 % in Italy to 43 % in Sweden. Overall, a quarter (25 %) of women had changed their diet compared to one fifth (19 %) of men. Analysing just those respondents who had changed their diet, Figure 5.21 shows the most common changes – these generally correspond to the changes that were most often cited as needed for a healthy diet. The most common changes were to eat more fruit and vegetables or to eat less fat; drinking more water was the third most common change.

Figure 5.21: What kind of changes did you make to your diet, EU-25, 2005 (1)
(%)

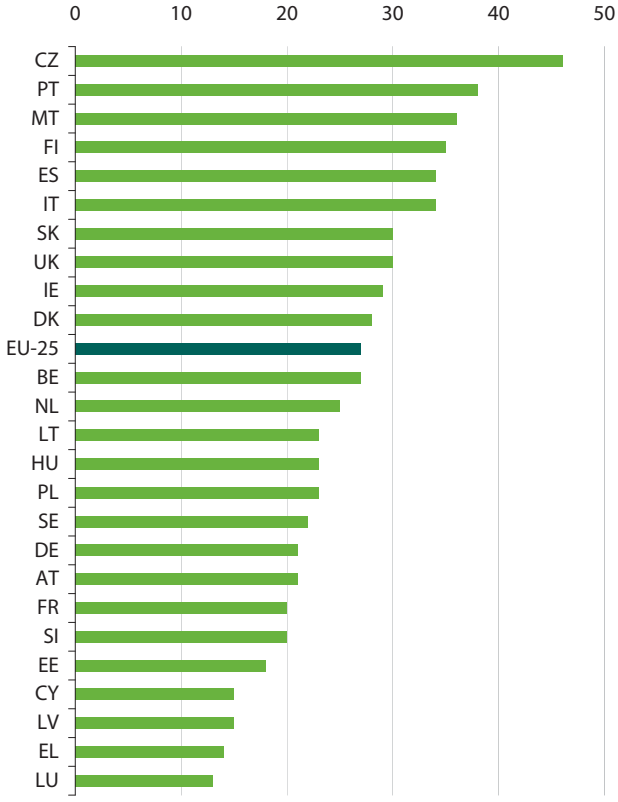


(1) Among those who changed their diet in the last 12 months, any number of answers allowed.

Source: Health and food, Eurobarometer 246, November-December 2005 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_246_en.pdf)11

EU legislation concerning genetically modified (GM) food is based on the principles that it must be safe, properly labelled in order to enable consumers to exercise freedom of choice, and traceable. In 2005 a Eurobarometer survey asked consumers for their views on several biotechnologies, including GM foods. Overall, the analysis of the results concluded that GM food is often viewed by Europeans as not being useful, as being morally unacceptable, and as being a risk for society. Support for GM technology varied greatly between countries, reaching a high of 46 % in the Czech Republic, while a low of 13 % was recorded in Luxembourg – see Figure 5.22.

Figure 5.22: Support for GM foods, 2005 (1)
(%)

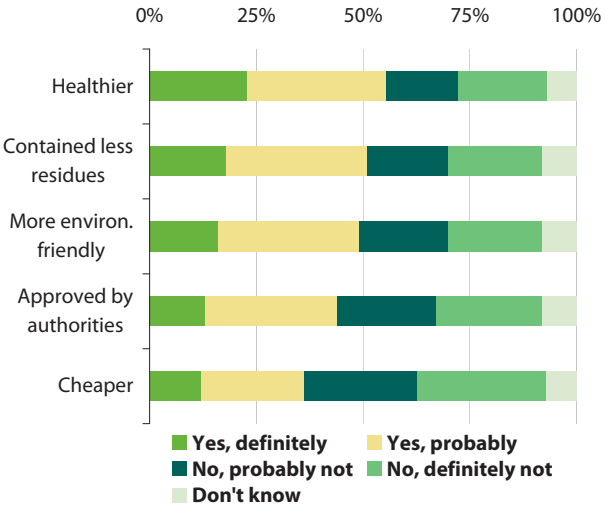


(1) Whether the technology should be encouraged.

Source: Europeans and biotechnology in 2005: patterns and trends, Eurobarometer 64.3 (http://www.ec.europa.eu/research/press/2006/pdf/pr1906_eb_64_3_final_report-may2006_en.pdf)

The reasons for buying GM food were also studied in the same survey. Respondents were asked under what conditions they would buy GM food. Just over half said they would buy GM food if it was healthier, and around half of all respondents said that they would buy GM food if it contained less pesticide residues and/or if it was more environmentally friendly.

Figure 5.23: Reasons for buying GM foods, EU-25, 2005 (%)



Source: Europeans and biotechnology in 2005: patterns and trends, Eurobarometer 64.3 (http://www.ec.europa.eu/research/press/2006/pdf/pr1906_eb_64_3_final_report-may2006_en.pdf)

6

Annex

Data sources

FOOD domain: from farm to fork statistics

This domain provides access to various statistical collections from a broad variety of different sources. Only statistics providing information on food products and the food sector that have been considered relevant for food safety purposes are included.

The domain is structured in four main collections:

- Food consumption;
- From production to distribution – which quality label and at which price;
- Inputs to the food chain;
- Actors involved in the food chain.

The data contained in this domain have, by and large, been drawn together from other Eurostat data sources. The domain is an ideal starting point for those interested in the subject matter as it provides a single point of entry to a cross-section of topics that cover the complete food chain from producer to consumer. It should however be noted that more detailed statistics may sometimes be available by referring to the specific data sources detailed below.

Agricultural products

Annual statistics on the production of 200 specific crops (principally crop areas, production and yields) are mostly covered by Council regulations, although the data for fresh fruit and vegetables are collected under gentlemen's agreements from Member States. Crop production figures relate to harvested production.

Statistics on milk, eggs and meat product are also compiled according to Community legislation. Milk production covers production on the farm of milk from cows, ewes, goats and buffaloes. Data on animals generally concern the population of animals at the year's end (i.e. in December).

Agricultural products: supply balance sheets

Each supply balance sheet refers to all the uses and all the transactions which have occurred on the market between harvesting or production (finished product) and the wholesale

stage (just before reaching the retail or consumer market). The balance compares the uses and resources of the product (or group of products) concerned for a given reference area (Community and/or Member State) and for a given reference period (calendar and/or crop year).

Economic accounts for agriculture

The EAA comprise a production account, a generation of income account, an entrepreneurial income account, and some elements of a capital account. For the output items of agricultural, hunting and related service activities, Member States transmit to Eurostat values at basic prices as well as their components (the value at producer prices, subsidies on products, and taxes on products). For the items of intermediate consumption, values at purchaser prices are transmitted. The data for the production account and for gross fixed capital formation are transmitted in both current prices and the prices of the previous year.

European business trends

The retail trade turnover indices are business cycle indicators which show the monthly activity of the retail sector in value and volume terms. The volume measure of the retail trade turnover index is more commonly referred to as the index of the volume of (retail) sales. Retail trade turnover indices can also be used as short-term indicators for final domestic demand.

External trade statistics

The compilation of external trade statistics is divided into two different statistical systems; these are extra-EU trade statistics (Extrastat – based on customs declarations) and intra-EU trade statistics (Intrastat). Extra-EU trade statistics cover the cross border trading of goods between Member States and non-Member countries, whereas intra-EU trade statistics cover the trading of goods between Member States. This conceptual separation is mainly due to different data collection instruments, but it is as well a result of diverging policy impact. Whereas extra-EU trade statistics are required for a common trade and customs policy of the Community, intra-EU statistics measure the integration of the Member States' trade in a common market.

Harmonised indices of consumer prices

Harmonised indices of consumer prices are economic indicators constructed to measure the changes over time in the prices of consumer goods and services acquired by households. HICPs give comparable measures of inflation between the Member States and for other countries. They are calculated according to a harmonised approach and a single set of definitions. The coverage of HICPs is defined in terms of 'household final monetary consumption expenditure', by reference to national accounts concepts (ESA 1995).

Structural business statistics

SBS covers the 'business economy', which includes industry, construction and services (NACE Sections C to K). Note that SBS does not cover agriculture, forestry and fishing (among other activities). SBS describe the economy through the observation of units engaged in an economic activity: in SBS the most commonly used unit is the enterprise.

These data are compiled in the context of the Council Regulation on structural business statistics (EC, EURATOM) No. 58/97 of December 1996 (and later amendments). The main characteristics (variables) within SBS include:

- business demography variables (e.g. number of enterprises);
- output related variables (e.g. turnover, value added);
- input related variables;
  - labour input (e.g. employment, hours worked);
  - purchases of goods and services;
  - capital expenditure (e.g. tangible investments).

Survey on the structure of agricultural holdings

The basic farm structure survey (FSS) is carried out by Member States every 10 years (the full scope being the agricultural census) and intermediate sample surveys are carried out three times in between. The Member States collect information from individual agricultural holdings and data are forwarded to Eurostat. The information collected covers land use, livestock numbers, management and farm labour input (including age, gender and relationship to the holder). The survey data can then be aggregated to different geographic levels (Member States, regions, and for basic surveys also districts) and can be arranged by size class, area status, legal status of the holding, objective zones, and farm type (including by specialised/non-specialised status, using economic criteria).

PRODCOM

PRODCOM statistics provide detailed information on the output (sold production) of mining, quarrying and manufacturing products – as defined by the statistical classification of products by activity (CPA). The statistics are based on the Prodcom List which consists of about 4 500 headings.

- Products are listed at an 8-digit level; 1 to 6 digits refer to the CPA.
- Most headings correspond to one or more Combined Nomenclature (CN) codes.
- Some headings (mostly industrial services) do not correspond to a CN heading.

Glossary

Annual work unit:

The number of hours to one annual work unit (AWU) corresponds to the number of hours actually worked in a normal full-time job. The system of national accounts states that full-time equivalent employment in a given country is defined as the total hours worked divided by the average annual number of hours worked in full-time jobs within the economic territory.

Agricultural holding:

The basic unit underlying the FSS is the agricultural holding. A holding is defined as a technical-economic unit under single management engaged in agricultural production. The FSS covers all agricultural holdings with a utilised agricultural area (UAA) of at least one hectare (ha) and those holdings with a UAA of less than 1 ha if their market production exceeds certain natural thresholds.

Basic price:

The basic price is the price receivable by the producers from the purchaser for a unit of a good or service produced as output minus any tax payable on that unit as a consequence of its production or sale (i.e. taxes on products) plus any subsidy receivable on that unit as a consequence of its production or sale (i.e. subsidies on products). The basic price excludes any transport charges invoiced separately by the producer. However, it includes any transport margins charged by the producer on the same invoice, even if they are included as a separate item on the invoice.

Body mass index (BMI):

The BMI is a measure of a person's weight relative to his or her height that correlates fairly well with body fat content in adults. BMI is accepted by experts as the most useful measure of obesity for adults when only weight and height data are available. BMI is calculated as the result of dividing body weight (in kg) by the square of a person's height (in metres).

Degree of self-sufficiency:

The degree of self-sufficiency of a given region indicates up to what point 'domestic production' (from a domestic raw material) of this region is in a position to cover all the needs or 'domestic use' (total use for humans, animals and industry) of this region. With regard to (agricultural) balance sheets, the degree of self-sufficiency is calculated using the 'domestic use' concept.

Extra-EU exports/imports:

Extra-EU exports/imports are recorded at the frontier country where the goods are placed under the customs procedures. Extra-EU trade statistics do not record exchanges involving goods in transit, placed in a customs warehouse, or given temporary admission.

Farm labour force:

The farm labour force includes all persons having completed their compulsory education (i.e. having reached school-leaving age) who carried out farm work on the holding covered by the survey during the 12 months up to the date of the survey. The figures include holders, even when not working on the holding; their spouses, on the other hand, are only accounted for if they are actually engaged in farm work on the holding. Persons of retiring age who continue to work on the holding are also included.

Farm type and standard gross margin:

The Community classification of types of farming was established by Commission Decision 78/463/EEC of 7 April 1978. These farm types classify holdings according to their main source of income. A holding is considered to be specialised if it earns more than two thirds of its total income from a single type of production.

The standard gross margin is a concept similar to value added. Each type of agricultural production, whether crop or livestock, is assigned a SGM, i.e. a standard income per production unit. The SGM of a holding, assessing the potential gross margin, is determined by a set of standard coefficients which can be used to value areas under crops and numbers of animals. It is obtained by adding the partial SGMs produced by the holding. It is expressed in hectares wheat-equivalent or economic size units (ESU). Since 1986, 2 ESU have been worth ECU 2 400, which is approximately 3 hectares wheat-equivalent.

Food borne diseases:

Food borne illnesses are defined as diseases, usually either infectious or toxic in nature, caused by agents that enter the body through the ingestion of food.

Gross human apparent consumption:

Quantities of products made available for human consumption in all forms: quantities consumed without further processing and quantities supplied by the distributive trades and the food (processing) industry. It is a derived statistic obtained from supply balance sheets and calculated as:

(commercial production + estimated own account production for self consumption + imports + opening stocks)
–
(exports + usage input for processed food + seed + feed + non-food usage + wastage + closing stocks).

Gross nitrogen balance:

This indicator estimates the potential surplus of nitrogen on agricultural land. This is done by calculating the balance between nitrogen added to an agricultural system and nitrogen removed from the system per hectare of agricultural land.

The indicator accounts for all inputs to and outputs from the farm. The inputs consist of the amount of nitrogen applied via mineral fertilisers and animal manure as well as nitrogen fixation by legumes, deposition from the air, and some other minor sources. Nitrogen output is contained in the harvested crops, or grass and crops eaten by livestock (escape of nitrogen to the atmosphere, e.g. as N_2O is difficult to estimate and is therefore not taken into account).

Gross value added:

The gross value added (GVA) is the value created by any unit engaged in an activity involving production. It is a component of an essential aggregate: gross domestic product (GDP), whose value represents the activity of the economic agents on a given economic territory. GVA at market prices is, for each branch of activity, the difference between the value of actual output (goods and services) and that of the intermediate consumption used in the production process.

Guideline daily amounts (GDAs):

Guideline daily amounts are a guide to the total amount of energy and nutrients that a typical healthy adult should be eating in a day. In general, GDAs are available for energy (calories) and the four most important nutrients that may increase the risk of developing some diet-related diseases: fats, saturated fats, sugars, and sodium (or salt). GDAs for carbohydrates, proteins and fibre may also be given at the manufacturer's discretion. Guidelines for adults are based on typical requirements for healthy men and women over 18 years of age, of normal weight and/or for weight maintenance. The energy GDA values are derived from estimated average population requirements for energy and take account of the current activity levels and lifestyle of an average citizen, which tends to be fairly sedentary.

Livestock unit:

The livestock unit (LSU) is used to compare or aggregate numbers of animals of different species or categories. Equivalences based on the food requirements of the animals are defined. By definition, a cow weighing 600 kg and producing 3 000 litres of milk per year = 1 LSU, a calf for slaughter = 0.45 LSU, a nursing ewe = 0.18 LSU, a sow = 0.5 LSU and a duck = 0.014 LSU.

Organic farming:

Farming is considered to be organic if it complies with Council Regulation (EEC) No. 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs, amended by a Council Regulation of 24 February 2004. Organic farming can be defined as a method of production which places the highest emphasis on environmental protection and, with regard to livestock production, animal welfare considerations. It avoids, or largely reduces, the use of synthetic chemicals such as fertilisers, pesticides, additives and medicinal products.

PDO and PGI:

A PDO (protected designation of origin) covers the term used to describe foodstuffs which are produced, processed and prepared in a given geographical area using recognised know-how.

In the case of the PGI (protected geographical indication) the geographical link must occur in at least one of the stages of production, processing or preparation.

Price level indices:

Price level indices are calculated as a ratio between purchasing power parities (PPPs) and exchange rates for each country, and are expressed relative to some standard; in this publication the EU average is used as a standard and is set to equal 100. PLIs provide a comparison of countries' price levels with respect to the EU average – if the price level index is higher than 100 the country concerned is relatively expensive compared with the EU average and vice versa.

Utilised agricultural area:

The utilised agricultural area (UAA) is the total of arable land, permanent pasture and meadow, land used for permanent crops, and kitchen gardens. The UAA excludes unutilised agricultural land, woodland and land occupied by buildings, farmyards, tracks, ponds, etc.

Waste generation and treatment:

On the basis of Regulation (EC) No. 2150/2002 of the European Parliament and of the Council on waste statistics, data on the generation and treatment of waste is collected from the Member States. The information on waste generation has a breakdown in sources (several business activities according to NACE and household activities) and in waste categories (according to the European waste classification for statistical purposes). The information on waste treatment has a breakdown in five treatment types (recovery, incineration with energy recovery, other incineration, disposal on land, and land treatment) and in waste categories.

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Food: from farm to fork statistics

This Pocketbook provides the reader with statistical information on how the food chain evolves in Europe; it gives different indicators for each step of the production-consumption chain, including food and feed. Its aim is to give a summary of the data currently available in the 'Food: from farm to fork' database. The outline shadows the approach taken by the European Commission on Food Safety Policy, and thus all the indicators presented have been developed with this in mind. This publication may be viewed as a compendium of the data available on food and the food chain within Eurostat.

http://ec.europa.eu/eurostat

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