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Food: from farm to fork statistics

2011 edition

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FROM FARM TO FORK STATISTICS

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

Information pertaining to primary agricultural production includes statistics on the number and types of farm holding and the area of land used for various types of agriculture. It also presents statistics relating to intermediate inputs within the production process for example details on fertilisers, plant protection products or feeding stuff for animals. The outputs of primary agricultural production include harvested crops, animals ready for slaughter (generally off-farm) and milk collected.

The next stage in the food chain often involves the processing of agricultural output: with cereals, vegetables, fruit, milk, meat or fish being transformed into a wide range of food products that are more familiar to consumers. This can be a relatively simple operation of cleaning, 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 beverage products pass along distribution channels in the form of wholesalers and transport enterprises before reaching retailers, restaurants, cafes or 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 a range of consumer issues – such as the presence of chemicals in food, food from genetically modified organisms, or animal welfare.

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Introduction

Structure of the publication

The aim of this publication is to provide readers with a balanced picture of the various stages along the food chain from farm to fork. The statistics presented are principally drawn from official data sources and in particular from the 'farm to fork database' produced by the statistical office of the European Communities (Eurostat); this database is supplemented by other official data sets most of which are sourced to Eurostat or other Directorate-Generals of the European Commission. The publication is not an exhaustive reflection of the data available, and it will often be possible to find more detailed statistics when referring to Eurostat's on-line databases that are freely available to the general public (ec.europa.eu/eurostat).

The publication is divided into six different chapters reflecting the farm to fork food chain:

(i) an overview;
(ii) the farm production stage;
(iii) the food and beverages manufacturing/processing stage;
(iv) the wholesaling, transporting and external trade of food and beverages;
(v) food and beverage retailing and consumer services;
(vi) consumption of food and beverages from the consumer's perspective.

As far as possible, a common approach has been taken within each of these chapters starting with a section providing the context to the statistics presented, then a structural overview of the most salient aspects (information on the number of holdings/enterprises and the number of persons employed). Most of the chapters also include an analysis of inputs and outputs, and where possible details of externalities that are generated as a result of food chain activities (particularly regarding environmental consequences).

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

Background information

The European statistical system

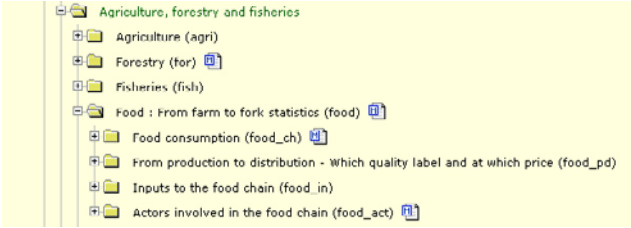
The European statistical system comprises Eurostat and the national statistical offices, ministries, agencies and central banks that collect official statistics across the European Union (EU) Member States, Iceland, Liechtenstein, Norway and Switzerland. The European statistical system concentrates on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

Data sources

Free access to data on the EU is available through Eurostat's website, which can be found at: ec.europa.eu/eurostat. The website presents an array of information in the form of tables, databases, methodology and publications; these are structured primarily according to subjects/themes.

Under most of the tables and graphs in this publication, one or more data codes are presented as part of the source; these may be used to access the data sets that were used to construct the tables and graphs. The data codes are presented in the PDF version of the pocketbook as hyperlinks which take readers directly to the data set on Eurostat's website. When accessing the data it is important to note that the information on the website is frequently updated and may therefore be fresher than that presented in this publication. Furthermore, through using the hyperlinks provided, it may be possible to expand various dimensions of the data and to make a more profound analysis – for example, by accessing information using different measurement units or more detailed products or activities.

The most important data in relation to farm to fork statistics has been grouped together as part of Eurostat's on-line databases under a single heading within its own sub-domain. This may be found under the theme for agriculture, forestry and fisheries when browsing Eurostat's 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. A dash (-) is used in tables to indicate values that are not relevant or not applicable. Data that have been estimated or data that are provisional (and are therefore likely to be revised) are presented in tables with an *italic* font.

In figures (charts/graphs), missing information for the EU Member States is footnoted as being not available, while estimates and provisional data are annotated in the footnotes.

Abbreviations

AEI	Agri-environmental indicators
Alc.	Alcohol(ic)
AWU	Annual work unit
Bev.	Beverage(s)
BMI	Body mass index
BSE	Bovine spongiform encephalopathy (so-called mad cow disease)
CAP	Common Agricultural Policy
COICOP	Classification of individual consumption according to purpose
Col.	Collection
Confect.	Confectionery
CN	Combined nomenclature
CPA	Statistical classification of products by activity
EAA	Economic accounts for agriculture
EFSA	European Food Safety Authority
e.g.	For example
ESU	European size unit
EU	European Union
EUR	Euro
Europ.	European
Eurostat	Statistical office of the European Union
ex.	Excluding
FAO	Food and Agriculture Organization (of the United Nations)
FSS	Farm structure survey
FTE	Full-time equivalent(s)
FVO	Food and Veterinary Office
GDP	Gross domestic product
GM	Genetically modified
GMO	Genetically modified organisms
GVA	Gross value added
HFCE	Household final consumption expenditure
HICP	Harmonised index of consumer prices

Inhab.	Inhabitants
Inter.	International
kg	Kilogram
km	Kilometre
LSU	Livestock unit
m^2	Square metre
N_2O	Nitrous oxide
NACE	Classification of economic activities in the European Community
Nat.	National
OECD	Organization for Economic Co-operation and Development
PDF	Portable Document Format
PDO	Protected designation of origin
Perm.	Permanent
PGI	Protected geographical indication
PLI	Price level index
PPP	Purchasing power parities
Prep.	Preparation
Process.	Processing
Prod.	Production/products
Prodcom	Statistics by product (for industrial goods)
RASFF	Rapid alert system for food and feed
RFID	Radio-frequency identification
SBS	Structural business statistics
SITC	Standard international trade classification
SGM	Standard gross margin
STEC	Shigatoxinogenic Escherichia coli
STS	Short-term business statistics
t	Tonne
tkm	Tonne-kilometre
Tob.	Tobacco
TSG	Traditional speciality guaranteed
UAA	Utilised agricultural area
VAT	Value added tax
vCJD	Variant Creutzfeldt-Jakob disease
Veg.	Vegetables
VTEC	Verocytotoxinogenic Escherichia coli
:	not available
-	not relevant, not applicable
%	Per cent

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
IS	Iceland
NO	Norway
CH	Switzerland
ME	Montenegro
HR	Croatia
MK	Former Yugoslav Republic of Macedonia ([1])
TR	Turkey
USA	United States of America

([1]) MK is a provisional code which does not prejudge in any way the definitive nomenclature for this country, which will be agreed following the conclusion of negotiations currently taking place on this subject at the United Nations.

1

Overview

Context

The food chain usually starts on the farm within the agricultural sector, where some goods may already be processed and sold directly to consumers through, for example, farm shops (eggs, milk, cheese, fruit or vegetables) or may be consumed on the farm itself, particularly where subsistence farming is practised. However, most of the food that is eaten in the EU passes from farms downstream to food and beverage manufacturers for subsequent processing or transformation and then on to food and beverage retailers or consumer services until reaching the final consumer. This journey from farm to fork generally passes through various wholesalers and involves other service providers such as transport and warehousing.

Great importance is placed on the quality of food that is distributed to consumers – be this from farms within the EU or from further afield in the form of food and beverage imports. No matter the origin of these products, the same stringent rules concerning food safety are applied to food no matter its origin. The EU's food safety strategy covers not only the safety of food for human consumption, but also animal feed, animal health and welfare, and plant health. This strategy is designed to ensure that food is traceable as it moves from the farm to the fork, even when crossing international borders.

While the initial focus of the common agricultural policy (CAP) was to ensure that there was adequate food being produced across the EU for all citizens, increasing efficiency within the agricultural sector meant that the EU became self-sufficient in the provision of food and beverages. As a result, subsequent legislative developments were centred more on food safety, hygiene and quality. The most significant of these in recent years was the CAP reform of 2003 which changed the way the EU supports its farming sector, moving away from production-linked subsidies towards new 'single farm payments' that, at least to some degree, reflect other criteria, such as respect for the environment, food safety or animal welfare. More information about the CAP is available at ec.europa.eu/agriculture/capexplained.

Just over ten years ago, following a series of food safety crises, the European Commission published a White Paper on Food Safety – COM (1999) 719 – which detailed proposals for new legislative steps in order to *guarantee a coherent and transparent set of rules, reinforcing controls from the farm to the table and increasing the capability of the scientific advice system, so as to guarantee a high level of human health and consumer protection*. The main priorities of the White Paper included: the setting-up of a European Food Safety

Authority (EFSA); the implementation of a farm to fork approach in food legislation; the recognition that feed and food operators should have primary responsibility for food safety; a requirement for EU Member States to ensure surveillance and control of feed and food operators; and the setting-up by the European Commission of a system of audits and inspections to be carried out in each of the Member States. More information about the farm to fork initiative is available at ec.europa.eu/food/index_en.htm.

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 aimed 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. The EU's food safety strategy has three core elements – legislation on the safety of food and animal feed; scientific advice on which to base decisions; and enforcement and control procedures to ensure that legislation is respected. General rules are supplemented, when considered necessary by special measures in order to protect consumers from the use of pesticides, food supplements, antibiotics or hormones. European legislation also extends into associated areas – for example, plastic packaging for foodstuffs, or labelling rules that allow consumers to identify ingredients more readily. The framework put in place also tries to accommodate diversity and choice, through protecting traditional foods, encouraging innovation, and ensuring that quality does not suffer.

EFSA based in Parma, Italy, is the EU's leading authority for risk assessment regarding food and feed safety. In close collaboration with national authorities, EFSA provides independent scientific advice on existing and emerging risks. As a risk assessor, EFSA produces scientific opinions and advice to support the European Commission, European Parliament and EU Member States in taking effective and timely risk management decisions. In this context, the EU operates a rapid alert system to avoid exposing consumers to the risk of food poisoning or contamination. This system is also designed to identify foodstuffs which may contain banned substances or excessive amounts of high-risk substances. When a food safety threat is discovered, alerts are issued across the EU – these may be restricted to stopping a single batch of food, or extended to all shipments of a particular product from farms, factories or ports of entry, while also recalling products that have already been delivered to warehouses or shops. More information about EFSA is available at www.efsa.europa.eu.

The European Commission enforces EU feed and food law by checking that legislation has been properly incorporated into national law and implemented by all EU Member States; on-the-spot inspections may be carried out. Regulation (EC) No 882/2004 on official food and feed controls came into force in 2006. This 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. It established a harmonised framework of rules for the organisation of controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

The Food and Veterinary Office (FVO) is part of the Directorate-General for health and consumers; it is based just north of Dublin, Ireland. Its inspectors participate in inspections, working to ensure that effective control systems are in place across the EU Member States and within non-member countries which export their products to the EU. While the FVO can check individual food production plants, its main task is to ensure that both EU governments and those of non-member countries have the necessary systems in place for checking that their own food producers are respecting the EU's food safety standards. 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 hygiene rules, and regular checks are carried out at EU borders to verify this. More information about the FVO is available at ec.europa.eu/food/fvo/index_en.cfm.

New developments within the food chain lead to additional burdens and further legislative developments – for example, in relation to genetically modified organisms (GMOs), novel foods, or new product ingredients. More information on GM food and feed is available from ec.europa.eu/food/food/biotechnology. The food chain is also shaped by changes in consumer demand and consumer preferences. For some, environmental considerations about food miles, food energy use, soil and water degradation, or types of farming practice are determining influences when making consumption choices. For others, health issues concerning food additives, preservatives, or salt/sugar content are important criteria, while economic realities – especially following the financial and economic crisis – also shape consumption choices.

The Europe 2020 strategy is the EU's growth strategy for the coming decade. It aims to transform the EU into a smart, sustainable and inclusive economy. This strategy offers a new perspective on economic, social, environmental, climate-related and technological challenges and future agricultural reform is likely to be made in relation to these goals, while taking account of the wealth and diversity of the agricultural sector within the EU Member States. More information about Europe 2020 is available at ec.europa.eu/europe2020.

Structural overview

There were just over 48 million people employed within the EU-27's food chain in 2008; this equated to more than one in five of the EU's total workforce. The food chain was made-up of close to 17 million different holdings/enterprises and generated EUR 751 008 million of added value, equivalent to just under 6 % of the EU-27's GDP.

Table 1.1: Main indicators of the actors in the food chain, EU-27, 2008

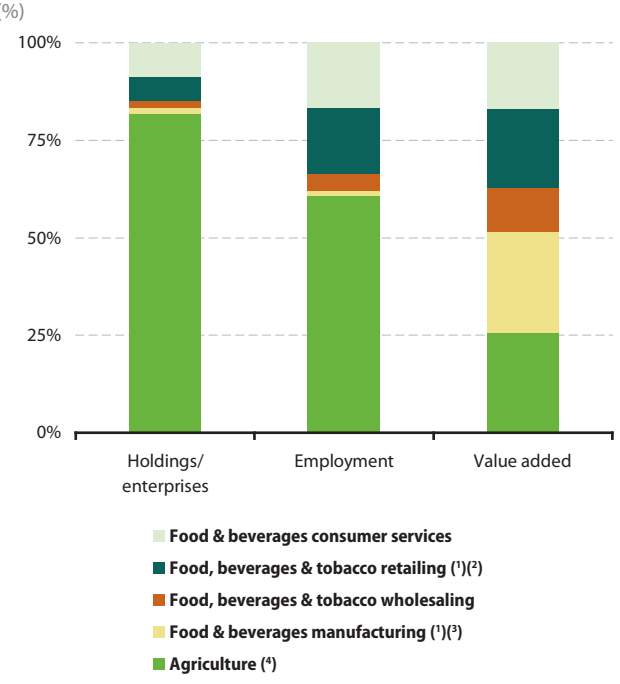
	Enterprises/ holdings (units)	Persons employed (units)	Value added (EUR million)
Total (1)	16 752 053	48 082 115	751 008
Agriculture (2)	13 700 400	26 669 390	191 962
Food & beverages manufacturing (3)	267 919	4 725 000	*195 308*
Agents involved in the sale of food, beverages & tobacco	67 616	133 400	5 491
Wholesale (own account) of food, beverages & tobacco	207 494	1 868 100	79 730
Non-specialised retailing: food, beverages & tobacco	419 659	*5 783 925*	121 663
Specialised retailing: food, beverages & tobacco	493 929	1 416 900	*27 000*
Food, beverages & tobacco retailing from markets & stalls	146 655	168 900	2 474
Food & beverages consumer services	1 448 381	7 316 500	127 380

(1) Sum of the available data (i.e. including information for number of holdings and employment for 2007 for agriculture, excluding the number of enterprises for beverages, and excluding the number of persons employed in non-specialised retailing).
(2) Number of holdings and employment, 2007.
(3) Excluding beverages for the number of enterprises.

Source: Eurostat (Survey on the structure of agricultural holdings, economic accounts for agriculture and structural business statistics, online data codes: ef_ov_kvftesu, ef_so_lfaa, aact_eaa01, sbs_na_ind_r2, sbs_na_dt_r2 and sbs_na_1a_se_r2)

Agriculture accounted for more than four fifths (81.8 %) of all the holdings/enterprises in the EU-27's food chain in 2008 and more than half (55.5 %) of its workforce. The highest number of agricultural holdings was found in the eastern Member States – in particular, Poland and Romania – which were characterised by a large number of subsistence holdings (rather than commercial farms). This was apparent in relation to the figures for the agricultural labour force, with upwards of five million persons employed in Poland and almost 6.5 million in Romania in 2008; together these two countries accounted for 43.2 % of the EU-27's agricultural workforce of 26.7 million persons.

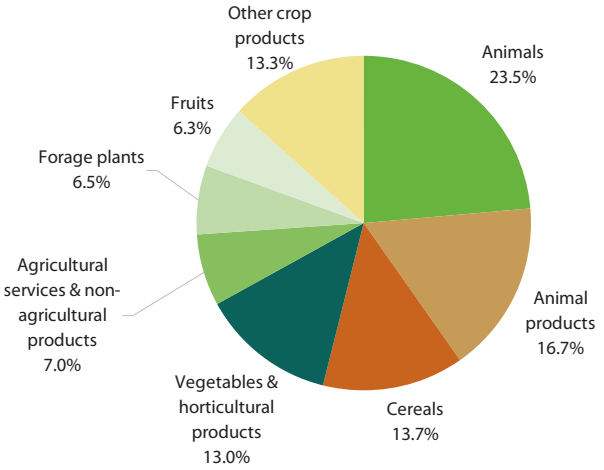
Figure 1.1: Structure of the food chain, selected indicators, EU-27, 2008



(1) Value added, estimated.
(2) Employment, estimated.
(3) Excluding beverages for the number of enterprises.
(4) Number of holdings and employment, 2007.

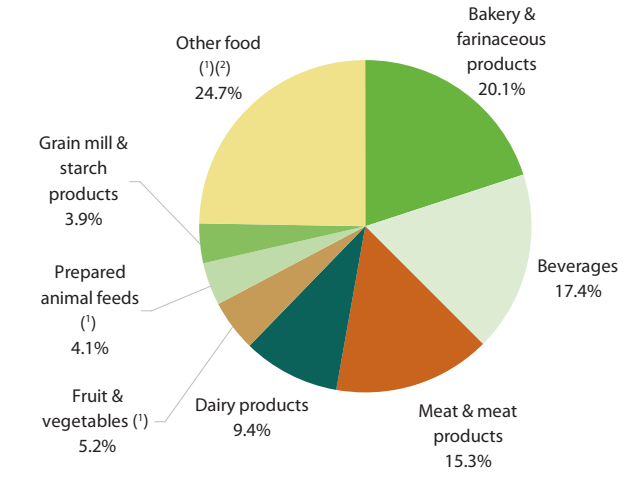
Source: Eurostat (Survey on the structure of agricultural holdings, economic accounts for agriculture and structural business statistics, online data codes: ef_ov_kvftesu, ef_so_lfaa, aact_eaa01, sbs_na_ind_r2, sbs_na_dt_r2 and sbs_na_1a_se_r2)

Figure 1.2: Agricultural gross output at basic prices, EU-27, 2008
(%)



Source: Eurostat (Economic accounts for agriculture, online data code: aact_eaa01)

Figure 1.3: Value added at factor cost of food and beverages manufacturing, EU-27, 2008
(%)



(1) Estimate.
(2) NACE Groups 10.2, 10.4 and 10.8: processing and manufacturing of fish, crustaceans, molluscs, vegetable and animal oils and fats, other food products.

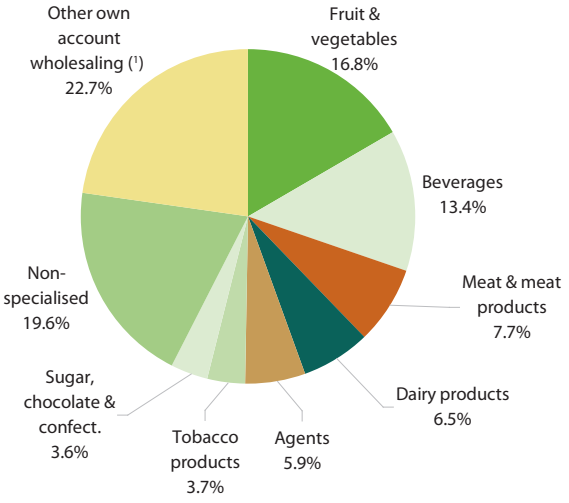
Source: Eurostat (Structural business statistics, online data code: sbs_na_ind_r2)

In value added terms, the largest part of the EU's food chain was the food and beverages manufacturing sector (26.1 % of total value added). There were 267 919 food processing enterprises (therefore excluding beverages) in the EU-27 in 2008. Germany had the largest workforce across the food and beverage manufacturing sector (845 400 persons, 17.9 % of the EU-27 total).

Wholesaling and transporting play a vital role in the EU's food chain, providing logistical services that allow food and beverages to be moved between producers and supplied to retailers. There were 275 110 wholesale enterprises in the EU-27 in 2008, employing just over 2 million persons.

There was a considerable increase in the number of supermarkets and superstores in the EU during the last couple of decades, which is reflected in the fact that non-specialised food retailing accounted for almost 80 % of the 7.37 million strong workforce employed within the food, beverages and tobacco retailing sector in 2008. The United Kingdom reported the largest workforce for food, beverages and tobacco retailing (1.28 million persons, 17.3 % of the EU-27 total).

Figure 1.4: Value added at factor cost of food, beverages and tobacco wholesaling, EU-27, 2008
(%)



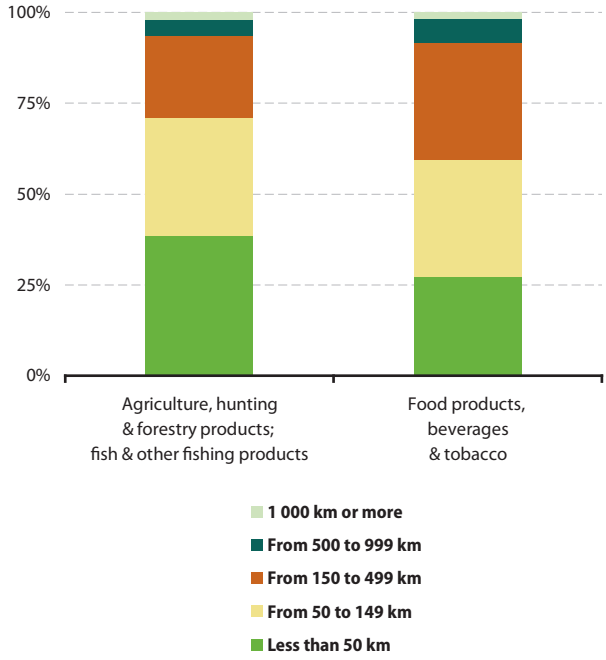
(1) NACE Classes 46.37 and 46.38: wholesale of coffee, tea, cocoa and spices and wholesale of other food, including fish, crustaceans and molluscs.

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

At the end of the food chain, there has been an expansion in the proportion of people and the frequency with which Europeans consume food and beverages in restaurants, cafés and fast-food outlets. Indeed, eating-out or making take-away purchases are increasingly favoured over preparing meals at home. There were 1.45 million food and beverage consumer service enterprises in the EU-27 in 2008, employing more than 7.32 million persons, of which the highest number was found in the United Kingdom (1.58 million, or 21.6 % of the EU-27 total).

Figure 1.5: Annual road freight transport by distance, EU-27, 2009 ([1])

(%, based on tonnes)

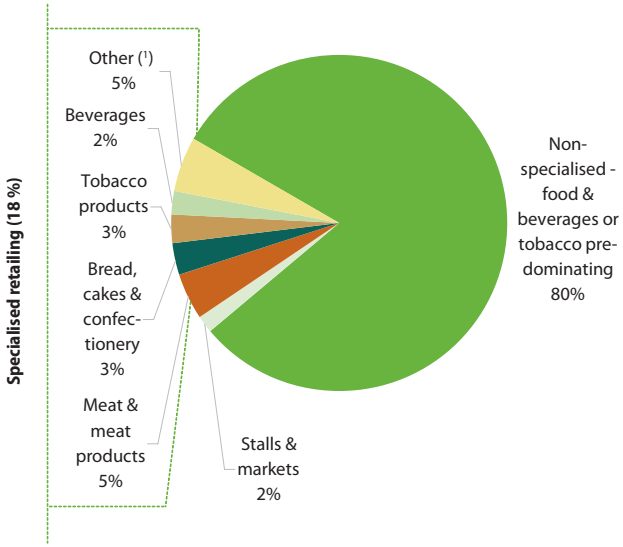


([1]) Excluding Malta.

Source: Eurostat (Road freight transport measurement, online data code: road_go_ta_dctg)

Figure 1.6: Value added at factor cost of food, beverages and tobacco retailing, EU-27, 2008

(%)

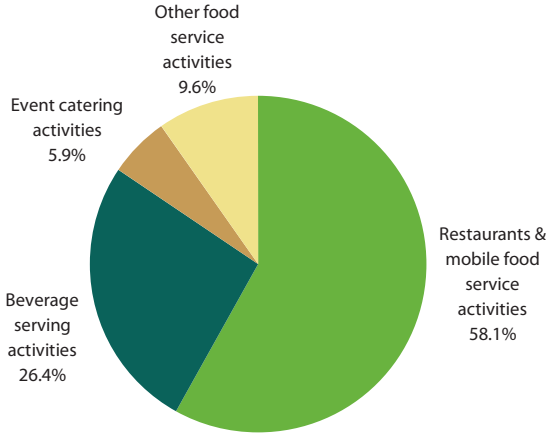


(1) NACE Classes 47.21, 47.23 and 47.29: retail sale in specialised stores of fruit and vegetables; fish, crustaceans and molluscs; and other food.

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

Figure 1.7: Value added at factor cost of food and beverages consumer services, EU-27, 2008

(%)



Source: Eurostat (Structural business statistics, online data code: sbs_na_1a_se_r2)

Farm production

2

Context

Agriculture was one of the first sectors of the economy to receive the attention of policymakers within what was at that time the European Economic Community. Article 39 of the Treaty of Rome on the EEC (1957) set out the objectives for the first common agricultural policy (CAP); these were focused on increasing agricultural productivity as a way to ensure a fair standard of living for the agricultural community, stabilise markets, and ensure security of supply at affordable prices to consumers.

As the primary objective of producing more food within Europe was achieved, food surpluses accrued distorting trade; furthermore, environmental concerns relating to agriculture gained in significance. These were the principal drivers for changes to the CAP, a process that started in the early 1990s and which resulted in a move from support for production towards a market-oriented and a more environmentally-friendly and sustainable form of agriculture. Further reforms have taken place in recent years, most notably in 2003 and 2008. The 2003 reform introduced a new system of direct payments, known as the single payment scheme, under which aid is no longer linked to production (this is also known as decoupling). The single payment scheme aims to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. In 2008 further changes were made, building on the reform package from 2003, such that it is planned that all aid to the agricultural sector will be decoupled by 2012.

Within the CAP, particular attention is paid to reducing the risks of environmental degradation through cross-compliance criteria (as a condition for benefiting from direct payments farmers must comply with certain requirements, some related to environmental protection), incentives and targeted agri-environmental measures, in order to enhance the sustainability of agro-ecosystems.

While there are varied statistical and administrative definitions of rural and urban areas, it is clear that a large proportion of the EU's population live in rural areas: according to Eurostat's recently developed urban-rural typology, some 24.1 % of the EU's population lives in regions that are predominantly rural and a further 35.6 % live in intermediate regions (regions where the

rural share of the population makes up between 20 % and 50 % of the region's population). Using the same typology 56.0 % of the EU-27's land area is in rural areas and 34.9 % in intermediate regions. The high share of the population and land area that are rural or intermediate underline the importance of rural development policies. Many rural areas have a less developed service sector or weaker transport and communications infrastructure. Farming, together with forestry, is a central activity for land use and management, and therefore at the heart of rural development policies.

The rural development policy for the period 2007 to 2013 is set out in Council Regulation (EC) No 1698/2005 — more information is available at ec.europa.eu/agriculture/rurdev. Under this Regulation, rural development policy is focused on three themes, namely to improve:

- the competitiveness of the agricultural and forestry sector;
- the environment and the countryside;
- the quality of life in rural areas and encouraging diversification of the rural economy.

Around 40 % of the EU-27's land area is farmed, highlighting the importance of farming for the EU's natural environment. Links between the natural environment and farming practices are complex: farming has contributed over the centuries to creating and maintaining a variety of semi-natural habitats within which a wide range of species rely for their survival; however, agricultural practices can have an adverse effect on natural resources, through the pollution of soil, water and air, or the fragmentation of habitats and a subsequent loss of wildlife.

This chapter provides an overview of the start of the food chain. It looks at the structure of agriculture across the EU in terms of the number of farms, their size and workforce. 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 well as fish farming and fisheries), as measured for example by harvested production, the number of animals that are reared for slaughter, or milk production, and this is followed by information on price developments. The chapter finishes with a number of indicators relating to the environment, such as emissions and irrigation.

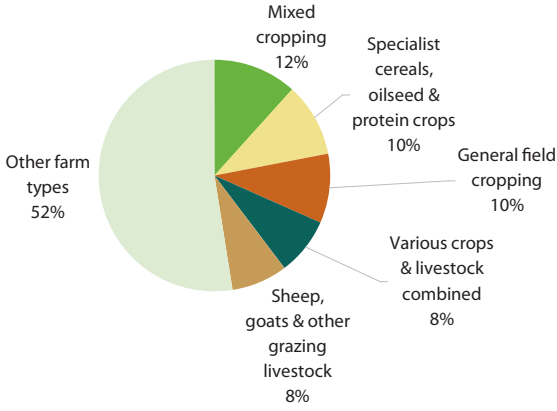
Structural overview

There were 13.7 million agricultural holdings in the EU-27 in 2007 of which around 7.3 million were commercial holdings and 6.4 million were small holdings (less than 1 economic size unit, effectively subsistence farming). Almost three in every five commercial agricultural holdings in the EU-27 were located in Italy (18.9 %), Poland (15.5 %), Spain (12.8 %) or Romania (11.9 %).

Mixed cropping accounted for 12 % of all agricultural holdings (commercial and small holdings), while specialist cropping and general field cropping each accounted for around 10 %. Farms specialised in rearing sheep and goats and other grazing livestock accounted for 8 % of the EU-27's farms in 2007, as did farms with a combination of various crops and livestock. Outside of these 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).

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 and Portugal, but particularly in Greece and Cyprus, where they comprised approximately one quarter of the land utilised for agricultural production.

Figure 2.1: Agricultural holdings by main type of farming, EU-27, 2007
(% of total)



Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_kvftaa)

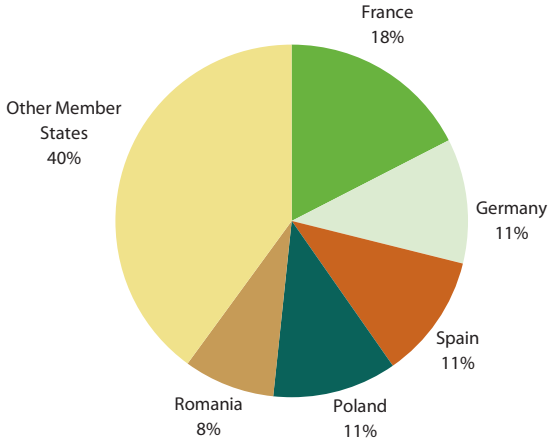
The majority (60.5 %) of the utilised agricultural area in the EU-27 was devoted to arable land in 2007 (see Table 2.1). This proportion rose to over 90 % in Denmark and Finland, while the largest arable area in the EU was recorded in France – see Figure 2.2a. In contrast, around three fifths of the utilised agricultural area in Slovenia and the United Kingdom was permanent pasture, a proportion that rose to three quarters in Ireland.

Table 2.1: Utilised agricultural area (UAA) by crop, 2007

	UAA (1 000 hectares)				Holdings	
	Total	Arable land	Perm. pasture	Perm. crops	Number (1 000)	UAA/holding (hectares)
EU-27	172 485	104 341	56 791	10 963	13 449	12.8
BE	1 374	842	511	21	47	29.2
BG	3 051	2 664	280	90	482	6.3
CZ	3 518	2 571	909	37	38	91.4
DK	2 663	2 452	201	9	44	60.2
DE	16 932	11 890	4 839	198	369	45.9
EE	907	627	273	3	23	39.0
IE	4 139	1 008	3 130	1	128	32.3
EL	4 076	2 119	820	1 126	854	4.8
ES	24 893	11 883	8 650	4 355	1 030	24.2
FR	27 477	18 302	8 105	1 059	522	52.6
IT	12 744	6 939	3 452	2 323	1 678	7.6
CY	146	108	2	36	40	3.7
LV	1 774	1 111	640	18	107	16.5
LT	2 649	1 809	819	20	230	11.5
LU	131	61	68	2	2	57.2
HU	4 229	3 553	504	155	566	7.5
MT	10	8	0	1	11	1.0
NL	1 914	1 059	821	34	75	25.5
AT	3 189	1 389	1 730	66	165	19.4
PL	15 477	11 756	3 271	375	2 380	6.5
PT	3 473	1 078	1 781	596	274	12.7
RO	13 753	8 691	4 540	344	3 852	3.6
SI	489	173	288	26	75	6.5
SK	1 937	1 358	551	24	67	29.1
FI	2 292	2 248	38	5	68	33.8
SE	3 118	2 627	487	4	72	43.2
UK	16 130	6 018	10 080	33	249	64.8
NO	1 032	617	412	3	48	21.3

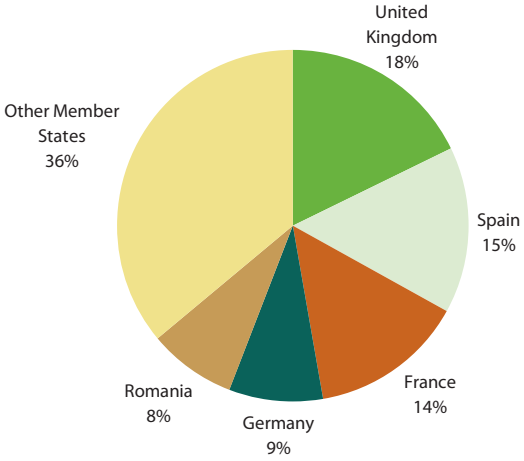
Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_luft)

Figure 2.2a: Arable area, 2007
(% of EU-27 total)



Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_luft)

Figure 2.2b: Permanent pasture, 2007
(% of EU-27 total)



Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_luft)

There were considerable variations in the average size of commercial agricultural holdings across the Member States, in some cases reflecting specialisation in different types of farming, and in others reflecting intensive or extensive farming practices. The average commercial farm size in Italy, Slovenia, Greece, Cyprus and Malta was less than 10 hectares, while in the Czech Republic and Slovakia it was well over 100 hectares.

Table 2.2: Average utilised agricultural area per agricultural holding

(hectares)

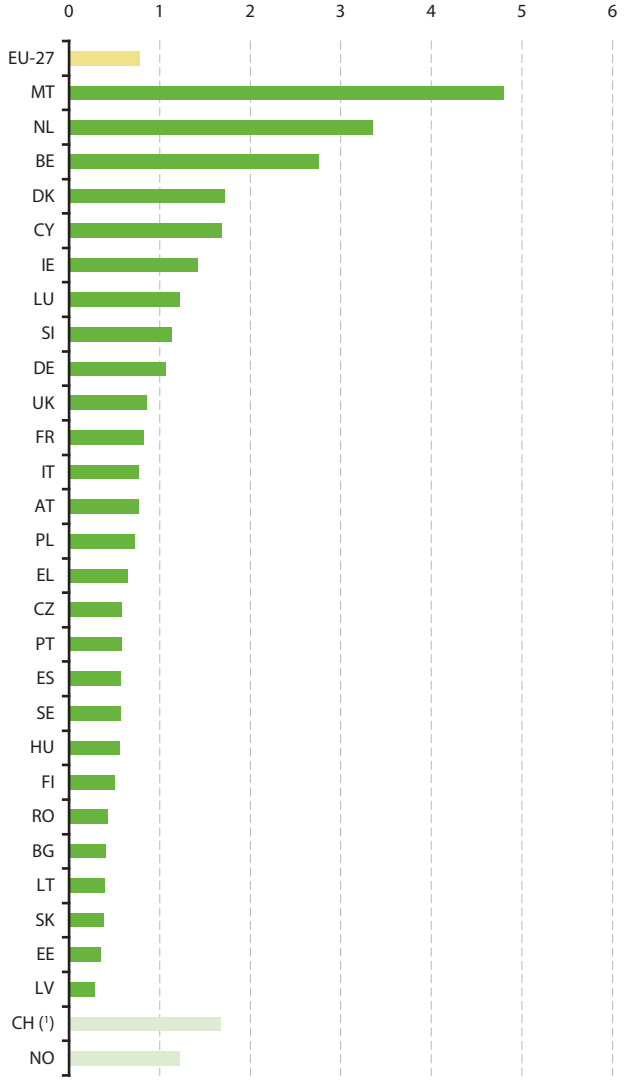
	All holdings				Commercial holdings (1)			
	1990	2000	2005	2007 (2)	1990	2000	2005	2007 (2)
EU-27	:	:	:	12.6	:	:	:	22.0
BE	15.8	19.1	22.6	28.6	17.3	20.1	23.7	29.7
BG	:	:	:	6.2	:	:	:	24.3
CZ	:	:	:	89.3	:	:	:	134.6
DK	34.2	39.6	45.7	59.7	34.2	39.6	45.8	60.0
DE	:	:	36.3	45.7	:	:	37.6	48.4
EE	:	:	:	38.9	:	:	:	66.5
IE	26.0	28.2	31.4	32.3	29.1	29.8	32.9	34.1
EL	4.3	4.5	4.4	4.7	5.5	5.4	5.3	5.6
ES	15.4	19.7	20.3	23.8	21.6	22.3	21.7	25.4
FR	:	:	:	52.1	:	:	:	55.7
IT	5.6	5.9	6.1	7.6	7.9	8.5	8.2	9.0
CY	:	:	:	3.6	:	:	:	4.9
LV	:	:	10.2	16.5	:	:	20.5	32.2
LT	:	:	:	11.5	:	:	:	25.0
LU	32.0	39.9	45.4	56.9	34.4	42.5	48.4	58.4
HU	:	:	4.7	6.8	:	:	22.7	28.8
MT	:	:	:	0.9	:	:	:	1.2
NL	16.1	17.7	20.0	24.9	16.1	17.7	20.0	24.9
AT	:	15.4	17.0	19.3	:	15.3	17.1	19.7
PL	:	:	:	6.5	:	:	:	12.3
PT	6.7	8.7	9.3	12.6	8.3	11.0	11.9	18.3
RO	:	:	:	3.5	:	:	:	11.0
SI	:	:	5.6	6.5	:	:	6.8	7.5
SK	:	:	30.4	28.1	:	:	171.4	119.3
FI	:	21.7	27.3	33.6	:	22.1	28.3	34.3
SE	:	34.4	37.7	42.9	:	36.7	40.5	51.9
UK	67.9	70.1	67.7	53.8	78.6	78.4	84.6	80.3
NO	:	:	14.7	20.7	:	:	15.0	20.7

(1) Commercial holdings exclude the very smallest (subsistence) holdings of less than 1 ESU.
(2) The Netherlands covers holdings of 2 ESU or more; EU-27 includes available data for the Netherlands.

Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_kvaaesu)

The livestock unit (LSU) is a reference unit which facilitates the aggregation of livestock from various species and age, essentially based on the nutritional or feed requirement of each type of animal; one LSU is the grazing equivalent of one adult dairy cow producing 3 000 kg of milk annually. The average livestock

Figure 2.3: Livestock density index, 2007
(LSU per hectare of UAA))



(1) 2005.

Source: Eurostat (Sustainable development, online data code: tsdpc450)

density in the EU-27 in 2007 was 0.78 LSU per hectare of utilised agricultural area. The highest densities were recorded in Malta, the Netherlands and Belgium, while the lowest densities were in the Baltic Member States and Slovakia.

Some 89 % of the 16.4 million persons working regularly on commercial agricultural holdings across the EU-27 in 2007 were farm holders or members of their families (see Table 2.3). In all Member States family labour made up at least half of the regular labour force except in Slovakia and the Czech Republic where their contribution to the regular labour force was less than two fifths of the total. Most regular non-family workers on agricultural holdings tended to work on a full-time basis, in contrast to many family members who often worked part-time.

Table 2.3: EU agricultural farm labour force, EU-27, 2007 (1)

Family labour force 14.6 million persons of which, 41 % women AWUs: 6.8 million			Non-family labour force AWUs: 2.2 million	
Holders	**Spouses of the holders**	**Other family members**	**Regular non-family labour force**	**Non-regular labour force**
7.1 million persons	3.7 million persons	3.8 million persons	1.8 million persons	
of which, 24 % women	of which, 78 % women	of which, 35 % women	of which, 28 % women	
AWUs: 3.8 million	AWUs: 1.6 million	AWUs: 1.3 million	AWUs: 1.4 million	AWUs: 0.8 million

(1) Excluding labour on holdings of less than 1 ESU; for the Netherlands, less than 2 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_lfft)

Table 2.4: Directly employed labour force, commercial farms, by type of farming, EU-27, 2007 (1)

(% of AWU)

Farming type		Farming type	
Cereals, oilseed & protein crops	7.8	Dairying	10.1
General field cropping	9.2	Cattle-rearing & fattening	4.3
Horticulture	5.6	Combined dairying, rearing & fattening	2.4
Vineyards	5.1	Sheep, goats & other grazing	6.5
Fruit & citrus fruit	5.3	Granivores	3.5
Olives	4.3	Mixed livestock, mainly grazing	6.0
Various permanent crops combined	3.6	Mixed livestock, mainly granivores	3.1
Mixed cropping	9.8	Crops & livestock combined	13.5

(1) Excluding labour on holdings of less than 1 ESU; for the Netherlands, less than 2 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_lfft)

Across the EU-27, around half of the farm labour force (measured in terms of annual work units) worked in crop farming, around 13 % in combined crop and livestock farming, and the remaining 36 % in livestock farming, most often dairy/cattle farming.

Table 2.5: Farm labour force, 2007

	Total farm labour force (1)	Subsist-ence labour (2)	Family labour (3)		Non-family labour		
					Regular (3)		Non-regular (3)
	(1 000 AWU)	(1 000 AWU)	(1 000 persons)	(1 000 AWU)	(1 000 persons)	(1 000 AWU)	(1 000 AWU)
EU-27	11 693	2 709	14 610	6 780	1 768	1 400	805
BE	66	1	73	51	13	10	3
BG	491	270	254	150	52	49	23
CZ	137	9	54	28	110	97	3
DK	56	0	63	34	21	19	2
DE	609	9	714	410	167	136	54
EE	32	7	29	13	14	12	1
IE	148	7	215	130	15	7	3
EL	569	21	1 272	449	29	21	78
ES	968	36	1 755	593	203	162	177
FR	805	10	589	368	426	341	86
IT	1 302	87	2 612	1 008	115	77	131
CY	26	2	57	17	6	5	2
LV	105	35	93	55	19	14	1
LT	180	69	191	84	28	24	3
LU	4	0	5	3	1	1	0
HU	403	195	289	121	86	75	13
MT	4	0	13	4	1	0	0
NL	165	:	150	100	74	51	14
AT	163	15	332	132	22	13	4
PL	2 263	525	2 770	1 623	60	53	63
PT	338	71	437	208	45	37	21
RO	2 205	1 240	1 870	829	62	48	89
SI	84	9	167	69	3	3	3
SK	91	28	34	13	55	47	4
FI	72	0	128	60	14	8	5
SE	65	8	99	42	20	13	2
UK	341	56	345	188	111	77	21
NO	56	0	120	45	23	8	3

(1) The Netherlands, excluding labour on holdings of less than 2 ESU.
(2) Labour on holdings of less than 1 ESU; EU-27, excluding the Netherlands.
(3) Excluding labour on holdings of less than 1 ESU; for the Netherlands, less than 2 ESU.

Source: Eurostat (Survey on the structure of agricultural holdings, online data code: ef_ov_lfft)

Organic farming is carried out by a relatively small but growing proportion of agricultural holdings within the EU: close to 200 000 holdings across the EU-27 were classified as organic in 2009. In most Member States (see Table 2.6 for availability), 6 % or less of agricultural holdings followed organic farming practices, with the proportion in Austria reaching 12 %.

Table 2.6: Organic farming

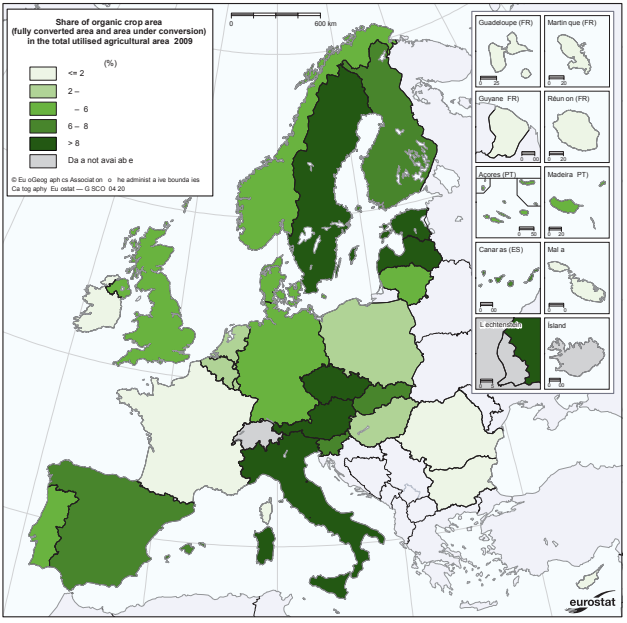
	Producers			Organic crop area (1)			
	(1 000)		(% of all holdings)	(1 000 hectares)		(% of total UAA)	Average organic area/ holding (hectares)
	2000	2009	2007	2000	2009	2009	2009
EU-27	:	:	:	:	*8 601*	*4.7*	:
BE	0.6	*1.0*	1.7	21	41	3.0	*41.6*
BG	:	*0.4*	0.0	:	12	0.2	*32.5*
CZ	:	*2.7*	3.3	:	377	10.6	*141.4*
DK	3.5	*2.7*	6.4	158	156	5.9	*58.1*
DE	12.7	*21.0*	5.0	546	947	5.6	*45.0*
EE	:	*1.3*	5.2	:	102	11.0	*80.1*
IE	0.9	*1.3*	0.9	27	48	1.1	*36.0*
EL	*5.3*	*23.7*	2.8	27	326	8.5	*13.8*
ES	13.4	*25.3*	1.7	381	1 603	7.0	*63.4*
FR	9.0	:	2.3	370	678	1.9	:
IT	52.8	*43.0*	2.7	1 040	1 107	*8.1*	*25.7*
CY	:	*0.7*	:	:	*3*	*1.9*	*4.3*
LV	:	*4.0*	3.8	:	160	8.7	*39.9*
LT	:	*2.7*	:	:	129	4.8	*48.7*
LU	0.0	*0.1*	3.5	1	*4*	2.7	*46.9*
HU	:	*1.6*	0.3	:	140	2.4	*86.8*
MT	:	*0.0*	:	:	*0*	*0.5*	*1.5*
NL	1.1	*1.4*	1.8	32	49	2.6	*34.9*
AT	19.0	*21.0*	12.0	429	519	18.5	*24.7*
PL	:	*17.1*	:	:	367	2.3	*21.5*
PT	0.7	:	0.7	48	:	*5.7*	:
RO	:	*3.1*	:	:	168	1.2	*54.7*
SI	:	*2.1*	:	:	29	6.3	*14.0*
SK	:	*0.4*	0.4	:	145	7.5	*400.8*
FI	5.2	*4.1*	5.9	147	166	7.2	*40.7*
SE	3.6	*4.8*	3.9	174	392	12.8	*81.3*
UK	3.6	*5.2*	1.8	579	722	4.1	*140.0*
NO	1.8	*2.9*	5.2	21	57	*5.5*	*19.9*
CH	4.9	*5.8*	:	82	111	:	*19.3*

(1) Fully converted and under conversion.

Source: Eurostat (Food: From farm to fork statistics, online datacode: food_act2, and food_in_porg1 and survey on the structure of agricultural holdings, online data code: ef_ov_kvaaesu)

The significance of organic farming is greater when measured in terms of the organic crop area, which averaged 4.7 % in the EU-27 in 2009, and exceeded 10 % in the Czech Republic, Estonia, Sweden and most notably Austria where it reached nearly one fifth of the total utilised agricultural area.

Map 2.1: Share of organic crop area (fully converted area and area under conversion) in the total utilised agricultural area, 2009 (%)



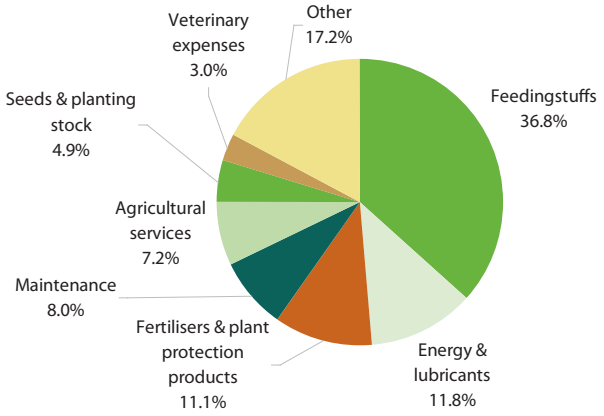
Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_porg1)

Agricultural inputs

As well as labour and fixed assets (notably land, buildings and equipment) agricultural production also requires consumable goods and services as inputs. Intermediate consumption within agriculture was equivalent to close to three fifths (59.7 %) of agricultural gross output (in basic prices) in the EU-27 in 2010. Items specifically associated with animal production accounted for 39.8 % of intermediate consumption in 2010 in value terms, the overwhelming part of which was accounted for by animal feed (see Figure 2.4). Fertilisers, plant protection products and seeds, which are key inputs within crop farming, accounted for 16.0 % of intermediate consumption. Of the remaining items shown in Figure 2.4 the category for other goods and services – that includes rents and fees for agricultural consultants and accountants among other items – accounted for 17.2 % of the total, while energy and lubricants comprised a further 11.8 %. The following pages look at some of these inputs in more detail, firstly focusing on crop farming inputs and then feed for livestock farming.

Figure 2.4: Intermediate consumption of goods and services in agriculture, EU-27, 2010 (1)

(%, in value terms)



(1) Estimates.

Source: Eurostat (Economic accounts for agriculture, online data code: aact_eaa01)

Table 2.7: Consumption of seeds, 2010

(1 000 tonnes)

	Cereals				Rice	Dried pulses	Potatoes
	Total	of which: own-produced (%)	Wheat	Grain maize			
BE (1)	:	:	:	:	:	:	86
BG	:	:	:	:	2	3	42
CZ	:	:	:	:	:	10	115
DK (2)	273	0.0	124	0	0	3	100
DE (3)	1 018	46.5	578	51	0	*22*	*575*
EE	69	:	30	0	:	1	25
IE (1)	51	9.8	17	2	:	:	40
EL (1)	156	64.1	90	5	:	:	84
ES (3)	1 086	56.3	375	22	:	:	:
FR (1)	1 170	92.8	747	102	:	32	344
IT (1)	570	8.6	444	28	35	:	181
CY	:	:	:	:	:	:	:
LV (1)	132	49.0	65	:	0	0	138
LT	207	:	109	2	:	15	112
LU (1)	7	9.4	3	1	:	0	3
HU	442	31.6	274	40	0	2	57
MT	:	:	:	:	:	0	0
NL (1)	119	8.4	99	13	0	0	263
AT (1)	118	:	54	9	:	4	53
PL	1 767	89.5	610	9	0	12	1 355
PT (3)	28	:	10	3	3	1	56
RO	832	42.2	603	60	3	10	1 042
SI (4)	18	:	10	2	:	:	9
SK	188	:	99	31	0	2	23
FI	:	:	:	:	:	:	77
SE (2)	175		75	0	0	7	78
UK (1)	503	40.2	322	0	:	:	:
HR (4)	67	:	50	6	:	:	26
TR (3)	2 199	:	1 458	14	:	:	:

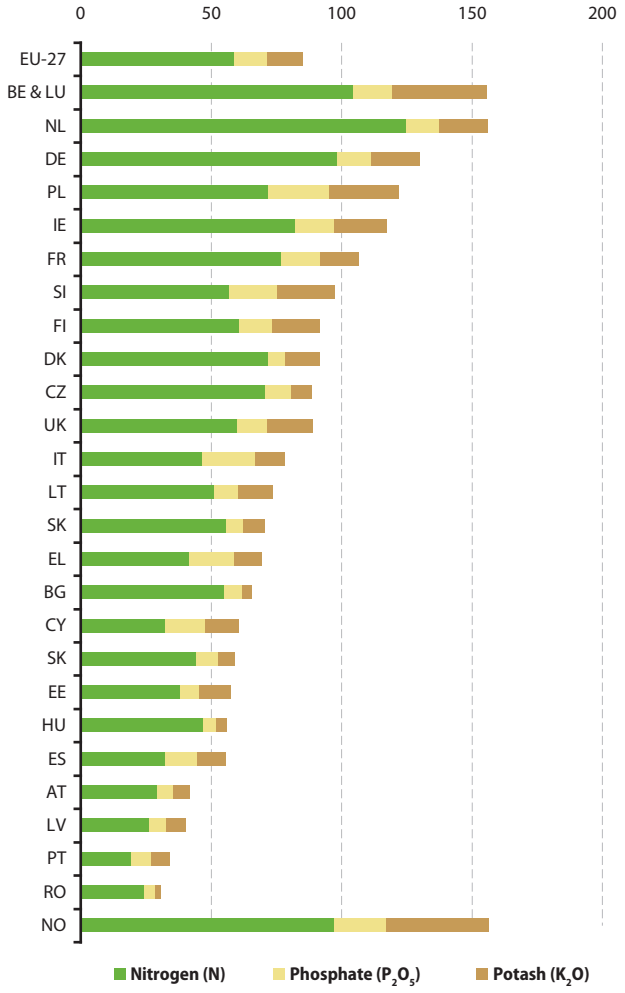
(1) 2009.
(2) 2006.
(3) 2008.
(4) 2007.

Source: Eurostat (Food: From farm to fork statistics, online data codes: 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 – for example, through the leaching of nitrates and phosphates into waters.

Figure 2.5: Estimate of fertiliser consumption, 2009 (1)

(kg of nutrient per hectare of utilised agricultural area)

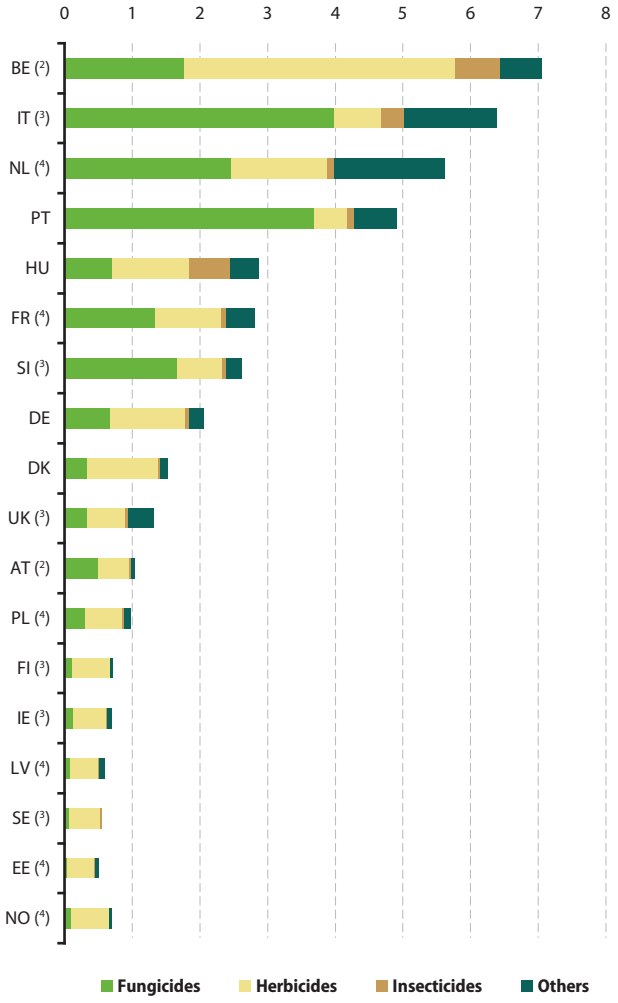


(1) Utilised agricultural area: 2007; Malta, not available.

Source: Eurostat (Agri-environmental indicators, online data code: aei_fm_manfert, and survey on the structure of agricultural holdings, online data code: ef_lu_ovcropaa)

The term plant protection products groups together substances 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.

Figure 2.6: Sales of plant protection products, 2008 (1)
(kg of active ingredient per hectare of utilised agricultural area)



(1) Utilised agricultural area: 2007 except 2005 for Belgium and Austria.
(2) 2005.
(3) 2006.
(4) 2007.

Source: Eurostat (Agriculture and environment statistics, online data code: env_ag_salpest and survey on the structure of agricultural holdings, online data code: ef_lu_ovcropaa)

Within the EU the estimated average expenditure on fertilisers and soil improvers per hectare of utilised agricultural area was highest in Malta and the Benelux countries in 2010, in part reflecting the importance of horticulture and permanent crops, as well as generally intensive farming systems. The Netherlands, Cyprus and Belgium spent the most on plant protection products.

Table 2.8: Expenditure on fertilisers and plant protection products (1)

(EUR per hectare of utilised agricultural area)

	Fertilisers and soil improvers (EUR / hectare of UAA)			Plant protection products (EUR / hectare of arable land)		
	2000	2005	2010 (2)	2000	2005	2010 (2)
EU-27	:	71.6	58.0	:	50.6	50.7
BE	164.3	155.4	245.9	126.1	123.8	126.0
BG	:	48.6	42.4	:	26.5	37.2
CZ	:	39.5	42.0	:	44.5	50.8
DK	94.4	76.9	62.3	58.1	65.6	72.8
DE	136.9	97.8	50.4	54.3	78.5	73.1
EE	:	16.9	14.4	:	7.4	10.4
IE	96.3	86.1	86.7	15.6	13.2	11.2
EL	87.0	61.5	40.8	67.1	55.1	38.5
ES	52.8	45.6	39.5	37.2	28.8	23.8
FR	:	112.6	86.8	:	94.9	87.5
IT	78.6	85.8	73.0	55.6	52.4	48.4
CY	:	112.8	79.1	:	94.1	128.6
LV	16.8	28.9	26.3	6.4	12.8	17.4
LT	:	59.8	51.4	:	23.4	34.3
LU	24.0	86.0	410.0	61.6	54.4	53.3
HU	47.2	66.1	62.9	48.4	63.0	74.4
MT	:	121.0	120.0	:	64.4	63.9
NL	155.8	154.2	167.0	168.8	181.1	198.7
AT	38.6	37.4	30.6	28.2	26.1	31.9
PL	:	53.8	42.4	:	22.9	41.0
PT	35.5	35.0	30.9	23.2	25.9	24.3
RO	:	30.3	22.9	:	14.2	7.5
SI	82.0	67.3	54.6	44.0	41.1	40.4
SK	28.7	38.9	43.5	40.3	51.4	40.9
FI	111.4	108.1	88.2	19.6	30.7	32.9
SE	84.0	70.7	79.5	30.5	21.4	20.3
UK	99.3	70.9	59.2	54.6	50.1	62.9
NO	137.3	135.8	139.0	36.0	26.5	27.6
CH	:	111.9	:	:	76.7	:

(1) Values are in constant (2005) prices; Eurostat estimates.
(2) Utilised agricultural area, 2007.

Source: Eurostat (Economic accounts for agriculture, online data code: aact_eaa03, and survey on the structure of agricultural holdings, online data code: ef_lu_ovcropaa)

Genetically modified organisms (GMOs) present another 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. Globally, by far the largest area sown with biotech crops (including crops other than for food or feedingstuffs) is in the United States, followed by Brazil and Argentina (see Table 2.9).

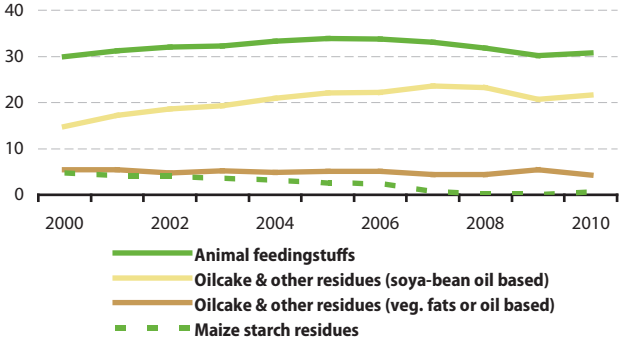
Animal feed is usually either forage or commercial compound feed. Figures 2.7 and 2.8 show the developments in imports of feedingstuffs as well as information on the country of origin: oilcake is the solid mass left after pressing (to extract oil) and this, as well as other residues from food processing, is used in animal feed. The quantity of animal feedingstuffs imported into the EU-27 from non-member countries increased steadily between 2000 and 2006 but between 2006 and 2009 the quantity of imports dropped 10.8 % such that by 2009 these were equal to their level from 2000. A similar, but stronger increase in imports of soya-bean oil based residues was recorded between 2000 and 2007, increasing from 14.8 million tonnes in 2000 to 23.6 million tonnes by 2007; this category of imports however also fell sharply in 2008 and 2009. In 2010 imports of both of these categories of products increased. Argentina and Brazil together dominate the extra-EU supply of animal feedingstuffs: in 2010 they accounted for slightly less than three quarters (73 %) of the EU-27's imports.

Table 2.9: Countries with the largest areas of biotech crops, 2009

	Country	Area (million hectares)	Main crops
1	USA	64.0	Soybean, maize, cotton, canola, squash, papaya, alfalfa, sugarbeet
2	Brazil	21.4	Soybean, maize, cotton
3	Argentina	21.3	Soybean, maize, cotton
4	India	8.4	Cotton
5	Canada	8.2	Canola, maize, soybean, sugarbeet
6	China	3.7	Cotton, tomato, poplar, papaya, sweet pepper
7	Paraguay	2.2	Soybean
8	South Africa	2.1	Maize, soybean, cotton
9	Uruguay	0.8	Soybean, maize
10	Bolivia	0.8	Soybean

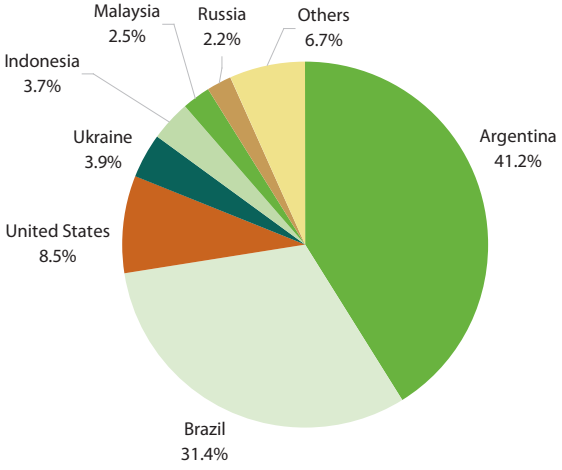
Source: International Service for the Acquisition of Agri-biotech Applications (ISAAA) and Clive James

Figure 2.7: Imports of animal feedingstuffs from outside the EU
(million tonnes)



Source: Eurostat (Comext)

Figure 2.8: Imports of animal feedingstuffs from outside the EU-27 - main trading partners, 2010
(% of EU-27 imports)



Source: Eurostat (Comext)

The following codes were used when extracting external trade data:
Animal feedingstuffs – SITC 08
Oilcake & other residues (soya-bean oil based) – CN 2304
Oilcake & other residues (veg. fats or oil based) – CN 2306
Maize starch residues – CN 23099020

Agricultural production

The livestock population across the EU-27 included about 152 million pigs, 88 million head of cattle, as well as more than 87 million sheep in 2010 (see Table 2.10). France recorded by far the largest number of cattle, Germany and Spain had the largest pig populations and the United Kingdom and Spain had the largest number of sheep.

Table 2.10: Livestock population, EU-27, 2010

(1 000 heads)

	Cattle (1)		Pigs (2)	Sheep (3)	Laying hens (4)
	Total	*of which:* dairy cows			
EU-27	88 300	23 702	152 189	:	:
BE	2 535	518	6 228	:	8 905
BG	531	292	664	1 368	6 893
CZ	1 319	375	1 914	197	:
DK	1 630	573	12 293	90	3 280
DE	12 706	4 182	26 871	1 800	36 551
EE	236	96	373	62	640
IE	5 848	1 107	1 602	3 183	3 745
EL	675	145	1 073	8 966	12 416
ES	6 081	845	25 795	18 471	:
FR	19 703	3 839	13 794	7 614	51 480
IT	5 833	1 746	9 321	7 009	:
CY	55	23	464	300	545
LV	380	164	390	67	:
LT	748	360	929	59	3 659
LU	194	46	89	8	0
HU	681	239	3 168	1 181	12 748
MT	15	6	66	12	383
NL	3 960	1 557	12 206	1 211	:
AT	2 013	533	3 134	358	5 560
PL	5 562	2 529	14 776	214	48 207
PT	1 375	275	2 181	2 719	8 000
RO	2 390	1 349	5 450	9 480	36 038
SI	470	110	396	138	1 378
SK	467	159	687	394	6 252
FI	909	284	1 340	94	:
SE	1 475	349	1 520	541	:
UK	9 901	1 864	4 601	21 272	:
HR	447	212	1 250	619	:

(1) EU-27, Belgium, Ireland, Greece, the United Kingdom and Croatia, 2009.
(2) EU-27, Belgium, Czech Republic, Ireland, Greece, Malta, the United Kingdom and Croatia, 2009.
(3) Czech Republic, Ireland, Greece, Cyprus, Slovenia, Sweden, the United Kingdom and Croatia, 2009; Denmark, Estonia, Latvia and Finland, 2008.
(4) 2009, except 2008 for Belgium, Greece and Slovenia.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr1)

Around one tenth of the cattle population were organically reared in the Czech Republic, Denmark, Sweden and Latvia and this share reached close to one fifth in Austria which had the largest organic cattle population in the EU in 2009. Several of the smaller Member States recorded high shares of the sheep population that were reared organically – for example, in the Baltic Member States.

Table 2.11: Organic livestock population, 2009

(1 000 heads)

	Cattle		Pigs (1)	Sheep (1)	Laying hens (3)
	Total (1)	of which: dairy cows (2)			
BE	53.3	11.3	10.3	9.2	167.3
BG	0.3	0.2	0.1	5.8	0.0
CZ	136.0	2.6	2.0	53.0	7.3
DK	170.2	62.1	185.8	10.6	816.3
DE	0.0	0.0	0.0	0.0	0.0
EE	21.1	3.1	0.3	39.4	7.8
IE	32.7	1.4	0.8	31.4	35.0
EL	28.6	16.5	54.6	357.5	122.1
ES	128.0	2.8	8.1	459.4	68.1
FR	:	62.6	:	:	1 703.2
IT	185.5	44.3	26.0	658.7	1 263.0
CY	0.0	:	0.0	0.6	:
LV	53.9	5.5	9.6	31.3	:
LT	21.9	8.3	0.3	13.0	1.2
LU	3.3	0.4	0.8	0.4	10.4
HU	25.1	3.4	6.4	11.1	29.4
MT	0.0	:	0.0	0.0	:
NL	59.0	24.0	85.0	23.0	1 600.0
AT	373.7	91.0	69.8	94.1	:
PL	51.4	19.4	18.7	39.2	131.6
PT	69.1	:	9.5	106.7	:
RO	8.1	4.3	0.6	51.5	9.4
SI	18.2	1.2	2.1	35.8	17.9
SK	33.5	4.4	0.3	102.1	3.8
FI	32.4	4.9	2.6	11.9	87.7
SE	194.1	34.1	42.5	86.7	607.2
UK	331.2	145.1	48.2	884.8	1 417.0
NO	23.9	7.6	2.5	45.4	170.4
CH	150.9	45.4	15.4	87.0	419.7

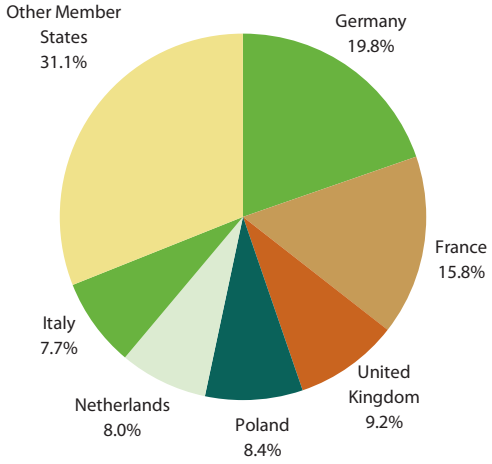
(1) Portugal, 2008.
(2) Spain, 2007.
(3) Bulgaria and Spain, 2007; France, 2008.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_porg3)

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 tonnes in 2006 to which a further 4 million tonnes were added for Romania and Bulgaria in 2007. In April 2008, milk quotas were increased by a further 2 %. Later the same year, so-called 'health check decisions' resulted in plans to increase milk quotas by 1 % each year for five consecutive years. The European Commission has adopted a report on the conditions for smoothly phasing out the milk quota regime. More information is available at ec.europa.eu/agriculture/milk.

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 148.5 million tonnes of milk produced across the EU-27 in 2009, the vast majority (90.5 %) – some 134.4 million tonnes of milk – was collected (see Table 2.12). The proportion of milk that was consumed on farms was particularly high in Romania where only 21.3 % of milk production was collected; Bulgaria had the next lowest share of milk production that was

Figure 2.9: Milk production, 2009 (1)
(%)



(1) Share of EU-27 total including 2008 data for Poland.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr3)

collected (55.9 %) while in all other Member States more than 70 % of total milk production was collected. Over two thirds (68.9 %) of the milk produced in the EU-27 came from Germany, France, the United Kingdom, Poland, the Netherlands and Italy (see Figure 2.9).

Table 2.12: Milk production and collection, 2009

(1 000 tonnes)

	Cows' milk		Ewes' milk		Goats' milk		Buffalos' milk	
	Production	Collection	Prod.	Col.	Prod.	Col.	Prod.	Col.
EU-27 (1)	148 526	134 362	:	:	:	:	:	:
BE	2 996	2 954	:	0	:	8	:	:
BG	1 073	600	87	33	64	7	7	2
CZ	2 781	2 354	:	0	:	0	:	0
DK	4 814	4 734	0	0	0	0	0	0
DE	29 199	27 461	:	:	35	:	:	:
EE	671	612	:	:	1	:	:	:
IE	*4 967*	4 944	:	:	:	:	:	:
EL	753	685	686	530	407	154	:	:
ES	6 251	5 742	507	374	530	342	:	0
FR	23 341	22 898	253	251	623	497	:	0
IT	11 364	10 500	600	441	34	23	195	175
CY	152	152	18	19	22	19	0	:
LV	828	595	:	:	3	:	:	:
LT	1 787	1 274	:	:	4	:	:	:
LU	284	271	:	:	1	:	:	:
HU (2)	1 758	1 407	1	1	3	0	:	:
MT (1)	40	40	2	:	1	:	0	:
NL	11 791	*11 469*	:	:	190	187	:	:
AT	3 230	2 716	9	3	18	6	0	0
PL (3)	12 447	9 140	20	0	0	2	0	0
PT	1 999	1 868	85	21	28	12	0	0
RO	4 654	992	432	14	169	4	28	2
SI	626	517	1	0	2	0	:	0
SK	957	852	9	5	0	0	:	0
FI	2 332	2 281	:	:	:	:	:	:
SE	2 933	2 933	0	0	0	0	0	0
UK	13 596	13 237	0	0	0	0	0	0
CH (4)	1 984	3 190	100	:	29	:	0	:
HR (5)	826	*675*	8	*3*	14	*4*	:	:

(1) 2008.
(2) Goats' milk collection, 2008.
(3) Buffalos' milk production, 2008.
(4) Production, 2006; collection, 2008.
(5) Production, 2008.

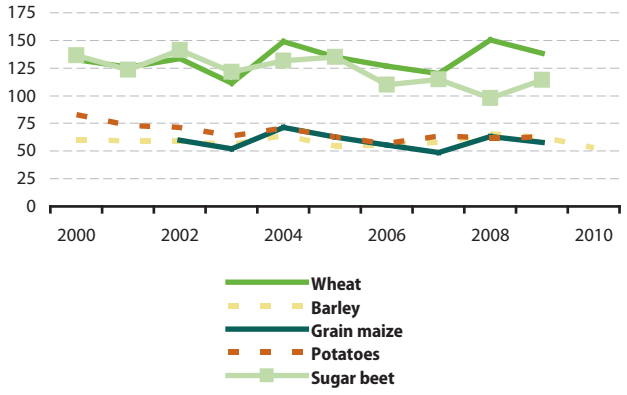
Source: Eurostat (Food: From farm to fork statistics, online data codes: food_in_pagr3 and food_in_pagr4)

The level of crop production from one year to the next is affected not only by farmers' decisions relating to the choice of crops and farming practices (use of fertilisers and similar inputs), but also by weather conditions. Wheat (see Figure 2.10) provides an example of how the level of harvested production is relatively stable over the medium-term, but can display relatively large rates of change from one year to the next.

In 2009 the harvested production of cereals in the EU-27 was 296 million tonnes, of which France alone contributed close to one quarter (23.6 %); Germany and Poland were the only other Member States with a share above 10 %. Wheat was the largest cereal crop in the EU, and France's share of wheat production reached 27.7 %, ahead of Germany (18.2 %) and the United Kingdom (10.2 %); wheat accounted for a relatively high share of total cereal production in the Netherlands. France and Germany each produced around one fifth of the EU's barley crop, while Spain and the United Kingdom produced about one tenth of the EU-27 total; barley accounted for a relatively high share of total cereal production in Cyprus, Ireland, Finland and Estonia. France produced 26.5 % of the EU's grain maize, while Romania, Italy and Hungary were also clearly specialised in this cereal product, each contributing between 13 % and 14 % of the EU-27 total; grain maize also accounted for a relatively high share of total cereal production in Portugal, Slovenia and Greece.

Germany and Poland were the largest producers of potatoes, together accounting for one third (33.7 %) of the EU-27's

Figure 2.10: Crop production, EU-27 (1)
(million tonnes)



(1) Including estimates for 2007 to 2010.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr5)

production, with the Netherlands, France and the United Kingdom each producing more than one tenth of the EU-27 total.

France and Germany were by far the largest producers of sugar beet in 2009, with a combined harvest of over 60 million tonnes, while Poland was the only other Member State with a sugar beet harvest over 10 million tonnes.

Table 2.13: Crop production, 2009

(1 000 tonnes)

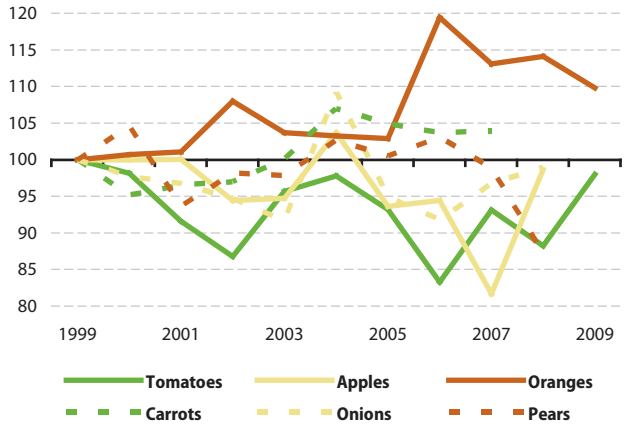
	Cereals				Potatoes	Sugar beet
	Total	Wheat	Barley	Grain maize		
EU-27	*296 149*	*138 325*	*61 973*	*57 844*	*62 580*	:
BE	3 324	1 978	453	808	3 296	5 185
BG	6 427	3 977	859	1 291	232	:
CZ	7 832	4 358	2 003	890	753	3 038
DK	10 117	5 940	3 394	0	1 618	1 898
DE	49 748	25 190	12 288	4 527	11 683	25 919
EE	874	343	377	0	139	:
IE	1 996	674	1 167	0	361	45
EL	4 814	1 830	280	2 352	848	1 600
ES	*17 827*	*4 773*	*7 292*	*3 498*	*2 660*	*4 226*
FR	70 000	38 325	12 880	15 300	7 164	34 913
IT	15 892	6 341	1 049	7 878	1 753	3 308
CY	57	15	40	0	*110*	0
LV	1 663	1 036	265	0	525	:
LT	3 807	2 100	858	24	656	682
LU	189	91	54	3	20	0
HU	13 590	4 419	1 064	7 528	561	737
MT	0	0	0	0	10	0
NL	2 089	1 402	310	245	7 181	5 735
AT	5 144	1 523	835	1 891	722	3 083
PL	29 827	9 790	3 984	1 707	9 380	10 849
PT	1 069	102	73	632	570	7
RO	14 873	5 203	1 182	7 973	4 004	817
SI	533	137	71	303	103	:
SK	3 330	1 538	676	988	216	899
FI	4 261	887	2 171	0	755	559
SE	*5 250*	2 278	1 681	8	858	2 406
UK	21 618	14 076	6 668	0	6 399	8 457
NO (1)	1 347	460	530	0	*400*	:
CH (1)	1 008	545	203	177	*408*	*1 508*
HR	3 442	936	244	2 183	270	1 217
MK	567	271	141	123	:	:
TR	33 373	20 520	*7 200*	*4 250*	4 328	16 300

(1) 2008.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr5)

Fruit and vegetables are often perishable and susceptible to damage from pests and inclement weather. The bulk of vegetables production in the EU-27 tends to be concentrated in a few Member States. In 2009 Italy and Spain had a combined tomato harvest of 11.1 million tonnes – for comparison, the production of tomatoes in Turkey was 10.8 million tonnes. Portugal and Greece (2008 data) recorded tomato harvests reaching just over 1.3 million tonnes each. The production of carrots was highest in the United Kingdom (752 000 tonnes) and Italy (624 000 tonnes); Germany, the Netherlands and France all had production levels of around half a million tonnes. The Netherlands and Spain produced well over 1 million tonnes of onions each, and together with Poland accounted for more than half of the EU's onion production. Again, Turkish production was higher than in any of the EU Member States, reaching 2 million tonnes of onions in 2009.

Figure 2.11: Fruit and vegetable production, EU-27
(million tonnes)



Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr5)

Fruit production was also relatively specialised across the EU Member States. Orange production was concentrated in the Mediterranean Member States, particularly Spain and Italy. Poland, Italy and France together produced 6.7 million tonnes of apples, more than half the EU's production. The largest producers of pears were Italy, Spain, the Netherlands, Portugal and Belgium, with a combined harvest of just over 2 million tonnes.

Table 2.14: Fruit and vegetable production, 2009

(1 000 tonnes)

	Tomatoes	Carrots	Onions	Apples	Pears	Oranges
BE	232	326	78	*311*	*281*	:
BG	104	15	8	36	1	:
CZ	15	19	46	142	4	:
DK	:	:	:	:	:	:
DE	67	570	433	1 071	52	:
EE (1)	1	12	0	1	:	:
IE	:	:	:	:	:	:
EL (1)	1 339	48	200	235	61	802
ES	*4 749*	:	*1 195*	*553*	*404*	*2 780*
FR (1)	715	557	326	1 940	156	:
IT	6 383	624	385	2 176	831	2 478
CY	*27*	*2*	*6*	*7*	*2*	*25*
LV	0	43	30	13	1	:
LT	2	58	18	44	2	0
LU	*0*	*0*	*0*	*10*	*1*	:
HU	193	66	61	575	32	:
MT	12	1	9	0	0	1
NL	800	561	1 269	407	295	:
AT	42	84	139	486	169	:
PL	*265*	*913*	*708*	*2 626*	*83*	:
PT	1 347	:	:	280	249	202
RO	471	131	235	514	65	:
SI	4	4	6	96	12	:
SK	26	8	13	38	1	:
FI	38	71	22	4	:	:
SE	14	123	:	21	:	:
UK (2)	86	752	376	243	21	:
NO (1)	:	:	:	17	1	:
HR	22	7	26	74	4	1
TR	10 785	598	2 011	2 734	376	1 581

(1) 2008.
(2) 2007.

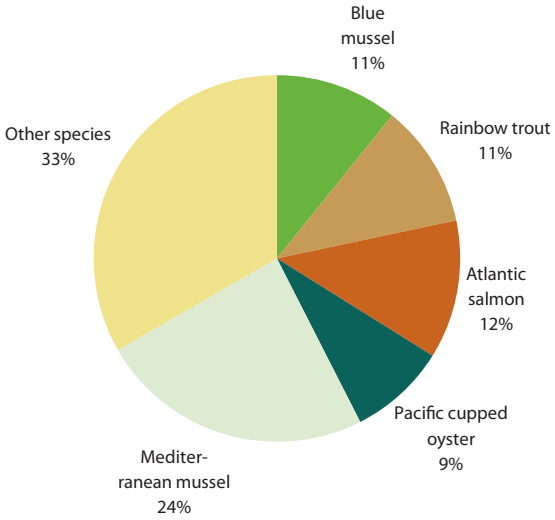
Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr5)

Aquaculture is the farming of aquatic populations under controlled conditions. The most common types of aquaculture production are for mussels, trout, salmon and oysters (see Figure 2.12).

The majority of the fish and molluscs eaten by European consumers tends to come directly from open waters, rather than from aquaculture. Table 2.15 shows the quantity of fish for human consumption landed by EU Member States, Iceland and Norway in 2009; note that fish landings are nil for several land-locked Member States.

The largest quantities of fish landed were 882 233 tonnes in the Netherlands (2007 data) and 703 875 tonnes in Spain. Denmark, France (2008), Ireland, Italy and Germany all reported landings over 200 000 tonnes. The total quantity of fish landed by these seven Member States was only slightly higher than the combined landings of Norway (2.0 million tonnes) and Iceland (696 470 thousand tonnes).

Figure 2.12: Aquaculture production, EU-27, 2009
(% of total)



Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pfish2)

The main type of fish landed varied considerably, in part reflecting off shore availability and in part consumer preferences. 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 Netherlands and Ireland the most Atlantic mackerel.

Table 2.15: Fish landings for selected species for human consumption, 2009

(tonnes)

	Total	Europ. anchovy	Atlantic herring	Europ. hake	Atlantic mackerel	Europ. pilchard	Europ. plaice
BE	15 531	:	0	36	3	:	3 801
BG	7 393	42	:	:	0	4	:
CZ	-	-	-	-	-	-	-
DK	279 858	:	129 760	2 402	15 187	:	15 802
DE	222 194	16	73 387	147	16 870	:	3 090
EE	88 742	:	36 284	:	:	:	:
IE	247 050	:	23 430	10 052	52 835	2 434	276
EL	81 822	14 539	:	5 230	292	10 072	:
ES	703 875	15 485	55	33 329	16 549	76 960	11
FR (1)	274 645	4 009	3 608	7 415	8 747	31 367	2 085
IT	242 581	54 388	:	12 040	1 175	15 637	:
CY	1 309	0	:	6	:	3	:
LV	71 531	:	22 533	:	:	:	:
LT	9 128	:	484	4	:	499	:
LU	-	-	-	-	-	-	-
HU	-	-	-	-	-	-	-
MT	1 607	8	:	11	2	0	:
NL (2)	882 233	9	289 564	193	103 595	2 140	33 592
AT	-	-	-	-	-	-	-
PL	80 147	:	21 781	:	0	:	0
PT	156 781	60	0	2 087	559	54 707	101
RO	332	21	:	:	:	:	:
SI	229	:	:	2	7	:	:
SK	-	-	-	-	-	-	-
FI	27 575	:	24 485	:	:	:	0
SE	87 093	:	39 783	68	3 374	:	292
UK	112 534	354	6 609	575	6 011	2 459	2 578
IS	696 470	:	143 219	:	100 633	:	5 812
NO	2 003 010	:	992 246	1 099	196 857	:	542

(1) 2008.
(2) 2007.

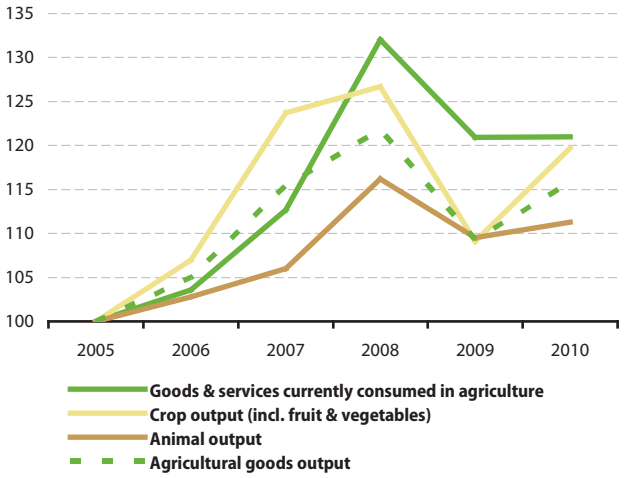
Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pfish3a)

Agricultural prices

The short time series for input and output prices presented in Figure 2.13 shows a clear change in price developments for agricultural goods and services: all of these price indices increased in 2006, 2007 and 2008 (in part reflecting increased global demand), fell relatively sharply in 2009 (reflecting the global financial and economic crisis), and then increased again with quite varied rates of change in 2010. Input prices (the price paid by farmers for goods and services) increased more between 2005 and 2008 than output prices. The reverse was true for the rebound in prices in 2010, as input prices remained almost stationary in 2010, whereas the output price of agricultural goods increased 5.9 %. Output prices for crops were more volatile than those for animal products as they increased more between 2005 and 2008, fell more sharply in 2009, and increased more in 2010: crop output prices increased 9.7 % in 2010 compared with the year before whereas output prices for animal products increased by 1.6 %.

Figure 2.14 shows the overall development in input prices between 2005 and 2010. Over these five years, EU-27 input prices for goods and services increased by 21.0 % overall, faster therefore than the rate of change for output prices – which recorded an increase of 15.8 %.

Figure 2.13: Agricultural price indices, EU-27 (1)
(2005=100)

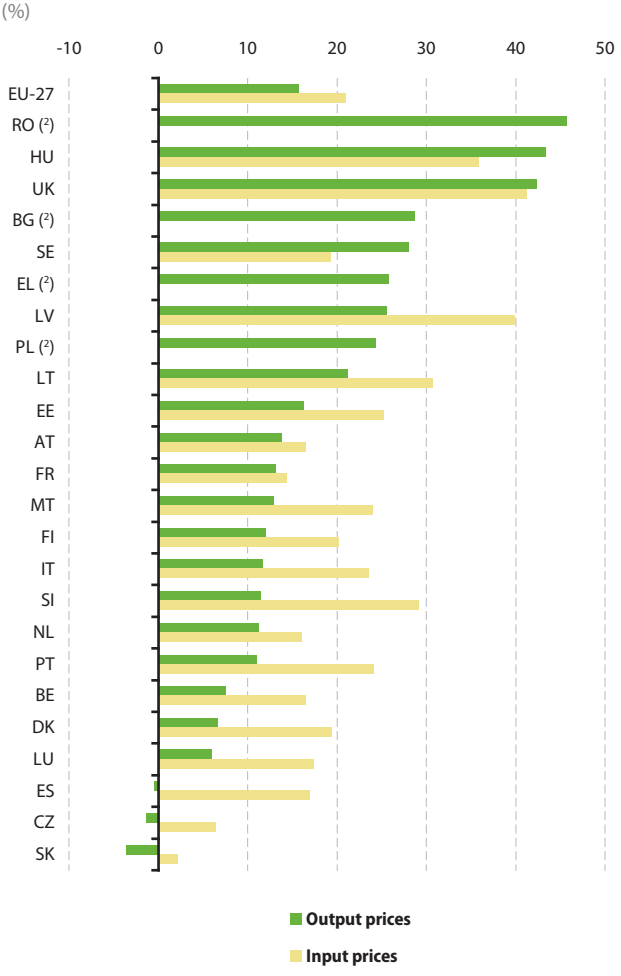


(1) 2010, forecast.

Source: Eurostat (Agricultural prices and price indices, online data codes: apri_pi00_ina and apri_pi00_outa)

Most Member States reported faster increases in input prices than output prices, with notable exceptions including Hungary, the United Kingdom and Sweden. The largest differences between these two rates of change were recorded in Slovenia and Spain. The overall rate of change for output prices ranged from -3.6 % in Slovakia (the Czech Republic and Spain also recorded negative rates of change) to more than 40 % in Romania, Hungary and the United Kingdom.

Figure 2.14: Overall change in agricultural price indices, 2005-2010 (1)



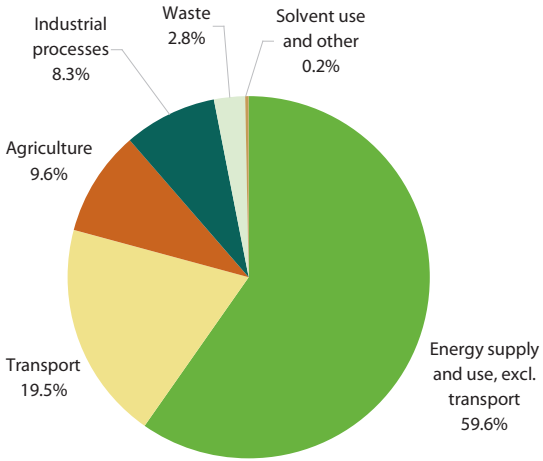
(1) Member States ranked by output prices; 2010, forecast; Ireland and Cyprus, not available.
(2) Input prices, not available.

Source: Eurostat (Agricultural prices and price indices, online data code: apri_pi05_ina and apri_pi05_outa)

Agricultural externalities

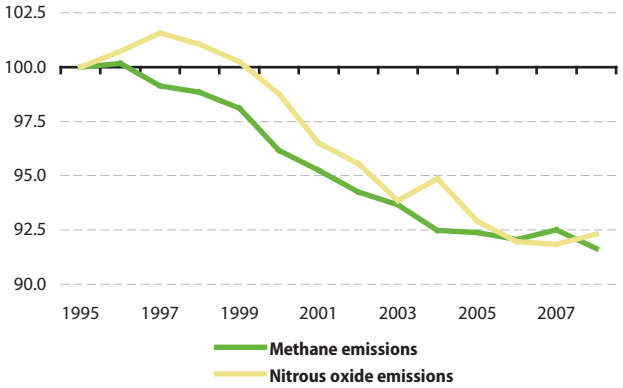
Agriculture contributed a little less than 10 % of the greenhouse gas emissions from the EU-27 in 2008 (see Figure 2.15), which was slightly more emissions than from industrial processes and about half the amount from transport.

Figure 2.15: Greenhouse gas emissions, EU-27, 2008
(% share of total greenhouse gas emissions)



Source: European Environment Agency *in* Eurostat (Greenhouse gases/air pollution, online data code: env_air_gge)

Figure 2.16: Methane and nitrous oxide gas emissions from agriculture, EU-27 (1)
(1995=100)



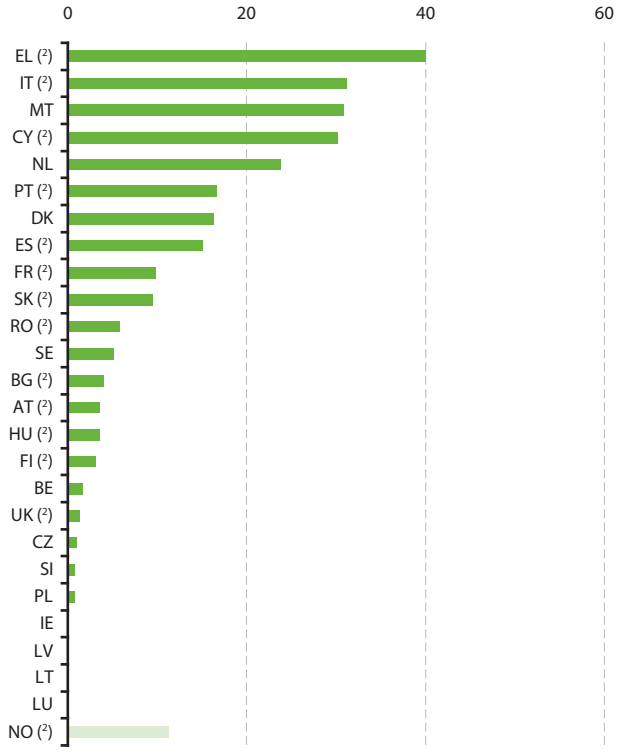
(1) Estimates.

Source: European Environment Agency *in* Eurostat (Agri-environmental indicators, online data code: aei_pr_ghg)

The main sources of agriculture-related greenhouse gas emissions are manure management, agricultural soil management, and enteric fermentation. These are closely linked to the production of livestock as methane emissions come largely 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 1995 and 2008, both methane and nitrous oxide emissions from agriculture fell by about 8 % (see Figure 2.16).

Irrigation is used to transmit water to agricultural land in order to help growing conditions, particularly in times of drought. The share of irrigable area in the utilised agricultural area was generally highest in the southern Member States (see Figure 2.17); the Netherlands also had a high proportion of irrigable area (generally for horticulture).

Figure 2.17: Irrigable area, 2007 (1)
(% share of utilised agricultural area)



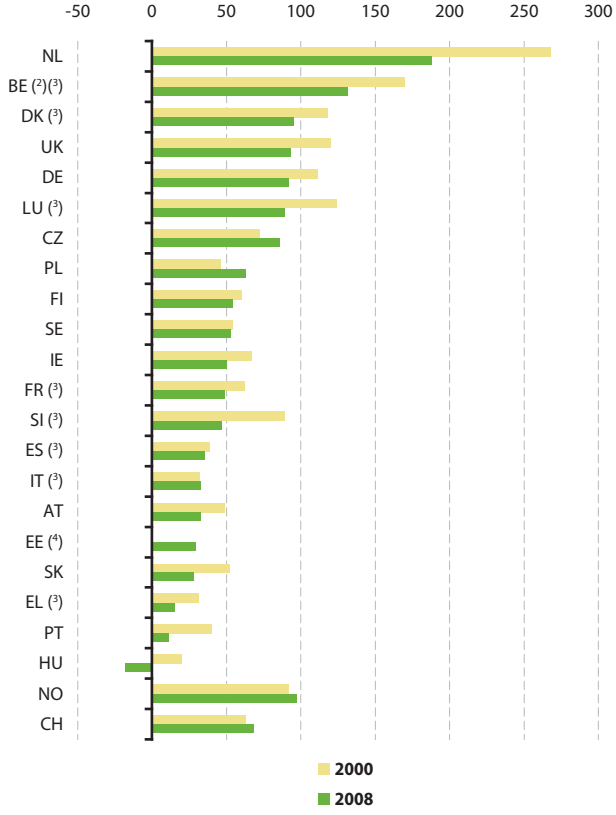
(1) Germany and Estonia, not available.
(2) 2005.

Source: Eurostat (Agri-environmental indicators, online data code: aei_ps_ira)

The gross nitrogen balance indicates surpluses leading to potential water and air pollution and identifies those agricultural areas and systems with very high nitrogen loadings. The highest nitrogen balances among the EU Member States (see Figure 2.18 for data availability) were in the Netherlands and Belgium. Note that Hungary had a negative balance in 2008 as the level of inputs (such as fertilisers, manure and atmospheric deposits) was less than the level of outputs (crop and fodder harvest, grazing, removal of crop residues).

Figure 2.18: Gross nitrogen balances (1)

(kg of nitrogen per hectare of arable land, permanent crops, and permanent grasslands)



(1) Bulgaria, Cyprus, Latvia, Lithuania, Malta and Romania, not available.
(2) 2006 instead of 2008.
(3) Estimates.
(4) 2000, not available.

Source: European Environment Agency *in* Eurostat (Agri-environmental indicators, online data code: aei_pr_gnb)

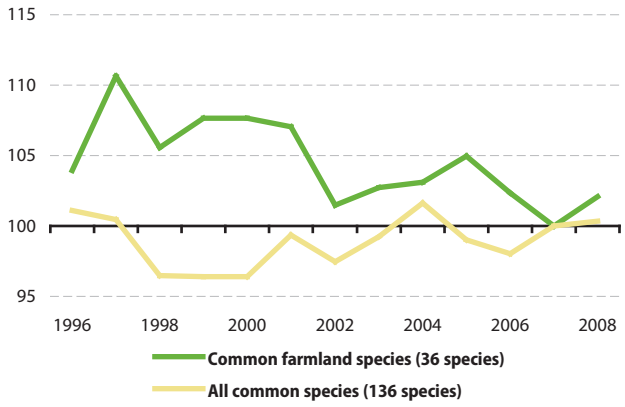
In the vast majority of Member States, gross nitrogen balances in 2008 were lower than in 2000, with the exceptions (among the Member States for which data are available) of the Czech Republic, Poland and Italy; gross nitrogen balances were also higher in 2008 than in 2000 in Norway and Switzerland.

Many habitats in the EU are maintained by extensive farming, and a wide range of flora and fauna rely on this for their survival. Agricultural practices and changes in land use have an impact on the extent to which habitats are fragmented, and directly on biodiversity.

Between 1990 and 2008, the number of common farmland birds declined by 18 percentage points, while the total number of common birds declined by 9 percentage points; almost all of these losses took place by 1996, with numbers relatively stable thereafter.

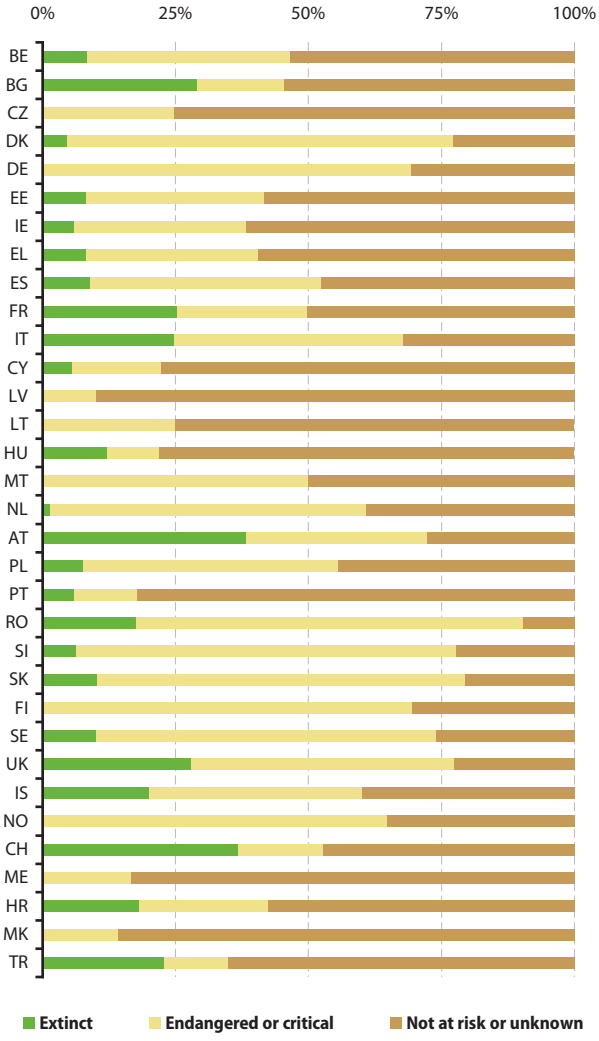
As well as concerns about the impacts of agriculture on wildlife populations, the loss of animal breeds is also an issue. In 13 of the EU Member States over half of all local breeds are reported to be extinct or at endangered or critically low levels (see Figure 2.20). Austria, Bulgaria, the United Kingdom, France and Italy reported around a quarter or more of local breeds were extinct, while two thirds or more of local breeds were endangered or at critically low levels in Romania, Denmark, Slovenia, Finland, Slovakia and Germany.

Figure 2.19: Bird population indices, EU
(2007=100)



Source: Eurostat (Biodiversity, online data code: env_bio2)

Figure 2.20: Endangered risk status of livestock breeds (1)
(% of total number of breeds)



(1) Based on local breeds; March 2010; Luxembourg, not available.

Source: FAO, Domestic Animal Diversity Information System

Processing

3

Context

This chapter refers to the processing of food and beverages and is largely based on an analysis of business statistics: structural business statistics, short-term statistics and statistics on the production of industrial goods (Prodcom).

Food and beverages manufacturing is one of Europe's most important and dynamic industrial sectors. It produces a vast array of products that range from staple food products (such as flour, milk, salt, water) to luxury, sometimes high value items (such as foie gras, caviar, chocolates, sparkling and still wines). Compared with most industrial activities, the food and beverages manufacturing sector is fragmented, with a relatively high proportion of small and medium-sized enterprises that tend to serve local, regional and national markets; some of these specialise in the production of geographical specialities. Nevertheless, there are also a handful of large multi-national manufacturers within the sector and many of these have considerable market reach, characterised by global brands.

Food and beverage processing is affected by a range of legislation, including that on animal welfare, food safety and food hygiene, food additives and residues, and labelling. Animal welfare legislation dates back as far as 1974. However, since the Lisbon Treaty, legislation has been based upon the premise that animals are sentient (conscious) beings – with the result that all subsequent legislation seeks to ensure that animals need not endure avoidable pain or suffering. At the time of writing, the European Commission is in the process of elaborating its second animal welfare strategy.

Animal welfare legislation impacts upon food processors in two particular areas: the transportation and the slaughtering of animals. Council Regulation ((EC) 1/2005) aims to help safeguard animal welfare during transport. It requires that animals are transported so as to avoid injury or undue suffering, while stipulating journey and rest times, health criteria, means of transport, as well as loading and unloading practices. Legislation on slaughtering practices is based upon the use of properly approved stunning and killing methods. In 2004 and 2006 the European Food Safety Authority (EFSA) adopted two opinions on such methods and the European Commission subsequently proposed a legislative revision. In 2009 the Council adopted Regulation ((EC) 1009/2009) on the protection of animals at the time of killing, which comes into effect as of 1 January 2013; the Regulation also requires slaughterhouses in non-member countries exporting meat to the EU to comply with similar standards.

Structural overview

In 2008 there were almost 288 000 food and beverage manufacturing enterprises in the EU-27, providing employment to 5.1 million persons, and generating close on EUR 1 000 billion of turnover.

Data interpretation

It should be noted that for many products – in particular wine, olive oil, milk, eggs and cheese – food and beverage processing may be done by agricultural holdings. Therefore, statistics that focus on food and beverage manufacturing activities are likely to under-report the true extent of food and beverage output.

On the other hand, enterprises that process food and beverages for final (human) consumption also provide intermediate products to other manufacturing activities (such as oils, fats and sugars) that are used in a variety of downstream applications; note these do not form part of the food chain.

In value added terms, and based on the group (3-digit) level of NACE Rev. 2, the four largest food and beverage manufacturing subsectors in the EU-27 in 2008 were other food products (including, the manufacture of sugar-based products, tea and coffee, or pre-prepared meals, NACE Group 10.8), bakery and farinaceous products (Group 10.7), beverages (Group 11.0), and meat products (Group 10.1).

Table 3.1: Manufacturing of food and beverages, main indicators, EU-27, 2008

(% of EU-27 total)

	Enterprises (units)	Persons employed (1 000)	Turnover (EUR million)	Value added (EUR million)
Food products & beverages	*287 919*	*5 111*	992 782	195 308
Food products	267 919	*4 631*	846 625	161 410
Meat & meat products	41 220	977	190 182	29 954
Fish & fish products	*3 800*	120	22 466	3 847
Fruit & vegetables	10 095	278	:	:
Vegetable & animal oils & fats	*8 800*	65	49 074	4 341
Dairy prod.	11 720	359	139 459	18 354
Grain mill & starch products	6 993	113	45 184	7 563
Bakery & farinaceous products	157 148	1 531	111 827	39 162
Other food products	22 975	678	:	*40 000*
Prepared animal feeds	5 107	124	*70 000*	*8 000*
Beverages	:	*480*	146 157	33 898

Source: Eurostat (Structural business statistics, online data code: sbs_na_ind_r2)

The food manufacturing sector (excluding beverages) in the EU is dominated by small enterprises: 92.7 % of enterprises employed fewer than 50 persons in 2008, while 6.0 % employed between 50 and 249 persons, leaving a residual 1.3 % employing 250 or more persons.

Table 3.2: Manufacturing of food and beverages, main indicators, 2008

	Enterprises	Local units	Persons employed	Turnover	Value added
	(units)		(1 000)	(EUR million)	
EU-27	*287 919*	:	*5 110.9*	992 782	195 308
BE	7 968	8 374	99.5	37 911	6 560
BG	5 071	5 234	106.5	4 413	782
CZ	*6 609*	*8 186*	*125.2*	*15 221*	*2 843*
DK	1 708	2 164	81.7	22 504	4 412
DE	31 554	5 796	845.4	174 332	33 183
EE	408	482	16.1	1 489	298
IE	642	701	40.0	23 968	5 266
EL	:	:	:	:	:
ES	28 722	29 651	389.4	100 940	20 445
FR	62 213	65 265	:	169 248	31 272
IT (1)	57 549	68 347	401.0	103 120	16 963
CY	982	982	13.1	1 558	384
LV	721	1 510	30.7	1 909	423
LT	1 244	2 459	48.5	3 316	586
LU	175	:	:	:	:
HU	6 709	8 126	110.2	11 335	1 993
MT	:	:	:	:	:
NL	4 261	5 952	127.6	:	:
AT	4 013	6 251	77.7	18 019	4 306
PL	16 037	21 192	438.1	48 957	9 738
PT	10 835	11 806	111.4	15 181	2 816
RO	9 593	9 957	206.9	11 257	2 493
SI	1 079	1 252	17.8	2 259	469
SK	864	:	40.0	4 074	636
FI	1 816	1 896	39.7	10 367	2 255
SE	3 380	3 772	65.6	16 241	3 339
UK (2)	7 449	9 840	423.2	82 487	22 792
HR	3 408	:	67.5	5 485	1 291

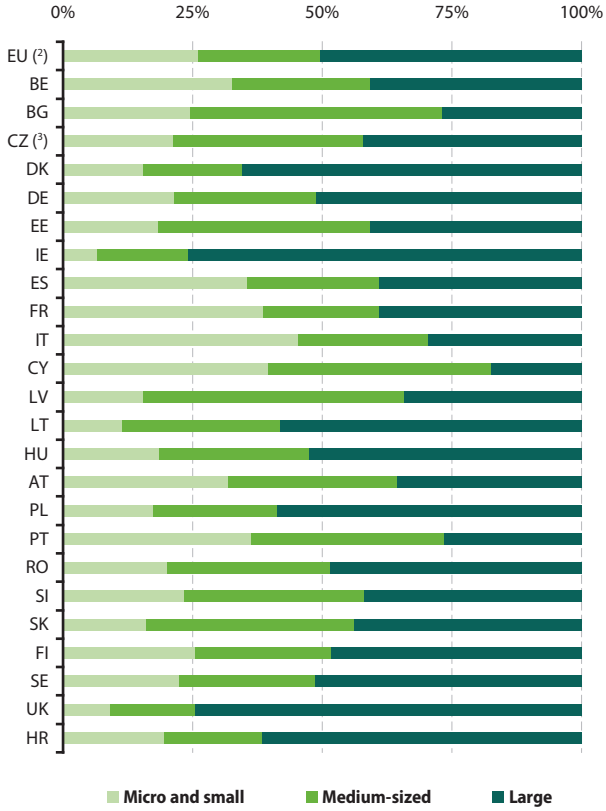
(1) Excluding the manufacturing of beverages.
(2) Excluding the manufacturing of beverages for turnover and for value added.

Source: Eurostat (Structural business statistics, online data codes: sbs_na_ind_r2 and sbs_r_nuts06_r2)

A high proportion of EU-27 food and beverage enterprises were located in France and Italy (beverages, not available). Germany had the largest workforce – followed by Poland and the United Kingdom (France, not available). The five largest EU Member States (in population terms) recorded the highest levels of turnover and value added for food and beverage processing in 2008, with Germany leading both rankings. Relative to their respective shares of EU-27 manufacturing value added, Cyprus, Latvia, Lithuania, Bulgaria, Ireland and Poland were all specialised in the manufacture of food and beverages.

Figure 3.1: Value added of manufacturing of food products, by size class, 2008 ([1])

(%)



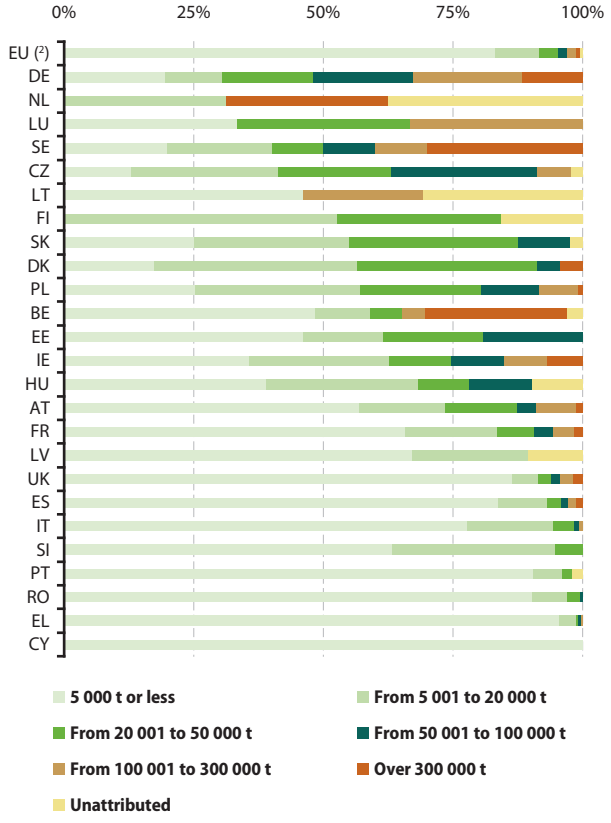
([1]) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed; Greece and Malta, not available; Luxembourg and the Netherlands, incomplete.
([2]) Average based on available information.
([3]) Provisional.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

For many food products derived from animals the first manufacturing stages often take place in dairies or slaughterhouses. Figures 3.2 to 3.4 provide information on the scale of dairy and meat processing operations across the EU. The average size of dairies and meat processing enterprises tended to be larger among the northerly Member States (with the exception of Germany for meat processing and the United Kingdom for dairies), while it was more common to find the enterprise population being composed of much smaller enterprises in the Member States around the Mediterranean.

Figure 3.2: Number of dairies, breakdown by dairy size class based on milk collected, 2006 (1)

(% of total number of dairies)

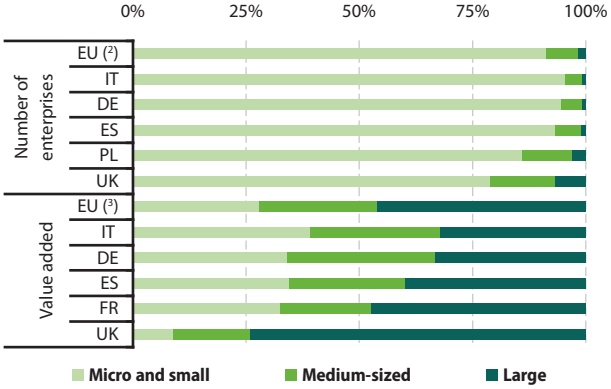


(1) Bulgaria, not available; Malta has one dairy that collected between 20 000 and 50 000 tonnes of milk; Luxembourg and Slovenia, 2003.
(2) Average based on available information.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_act6)

Figure 3.3: Size class analysis of production, processing and preserving of meat and meat products, five largest Member States, 2008 (1)

(% of total)

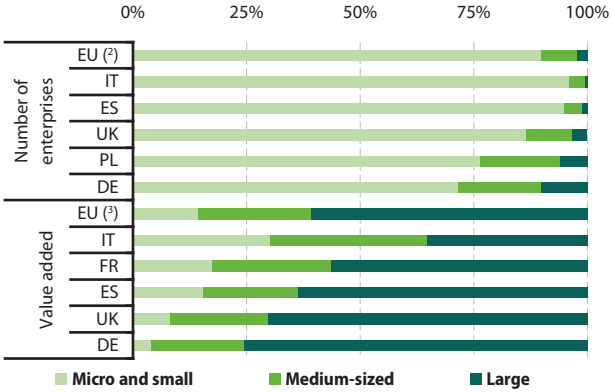


(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; the Czech Republic, Greece, France and Malta, not available.
(3) Average based on available data; the Czech Republic, Greece, Luxembourg, Malta and the Netherlands, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

Figure 3.4: Size class analysis of dairy products manufacturing, five largest Member States, 2008 (1)

(% of total)



(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; Bulgaria, the Czech Republic, Greece, France, Cyprus, Malta and Slovakia, incomplete or not available.
(3) Average based on available data; Bulgaria, the Czech Republic, Denmark, Estonia, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Slovenia, Slovakia and Finland, incomplete or not available.

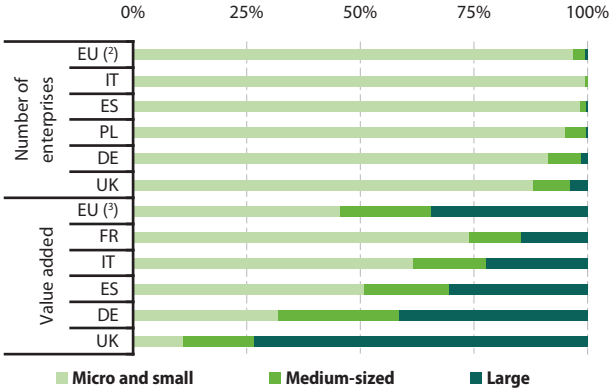
Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

A size class analysis for a selection of other food and beverage manufacturing subsectors (see Figures 3.5 to 3.7) confirms the general pattern of a north-south divide in the distribution of enterprises between size classes. Indeed, this pattern is commonplace across most business activities and is in no way confined to food and beverage processing.

The size class distribution of value added showed a quite different pattern from that based on the number of enterprises, as large enterprises (employing 250 or more persons) often accounted for a majority of the value added generated. This was particularly the case for the manufacture of dairy products (NACE Group 10.5), other food products (Group 10.8) and beverages (Group 11.0), where large enterprises in the EU accounted for almost two thirds of total value added in 2008.

At the other end of the range, micro and small enterprises (employing less than 50 persons) accounted for the largest share (45.7 %) of EU value added within the manufacturing of bakery products (NACE Group 10.7), their share rising to almost three quarters of total added value in France.

Figure 3.5: Size class analysis of bakery products manufacturing, five largest Member States, 2008 (1)
(% of total)

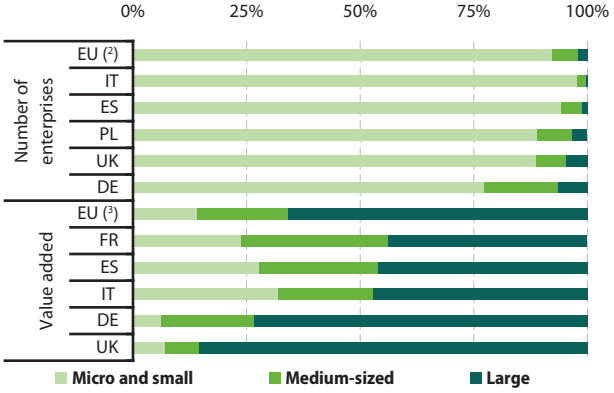


(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; the Czech Republic, Greece, France, Cyprus and Malta, incomplete or not available.
(3) Average based on available data; the Czech Republic, Greece, Cyprus, Latvia, Luxembourg, Malta, the Netherlands, Portugal, Slovenia and Finland, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

Figure 3.6: Size class analysis of other food products manufacturing, five largest Member States, 2008 (1)

(% of total)

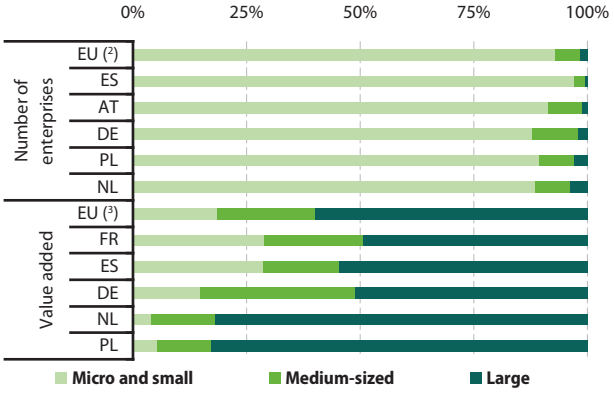


(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; the Czech Republic, Greece, France and Malta, not available.
(3) Average based on available data; the Czech Republic, Estonia, Greece, Latvia, Luxembourg, Malta, the Netherlands, Austria and Portugal, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

Figure 3.7: Size class analysis of beverages manufacturing, five largest Member States, 2008 (1)

(% of total)



(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed; Czech Republic, provisional.
(2) Average based on available data; Belgium, Greece, France, Italy, Cyprus, Malta and the United Kingdom, incomplete or not available.
(3) Average based on available data; Belgium, Denmark, Estonia, Greece, Italy, Cyprus, Latvia, Luxembourg, Malta, and the United Kingdom, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_ind_r2)

Organic food processing

A single norm on organic production and labelling of organic products is established by EU law, covering plant products, animal products, aquaculture, and processed food products. It applies to all operators involved in the organic food chain, from farmers to distributors. The use of the term 'organic' is reserved for products compliant with EU legislation and organic products must be certified by independent bodies. Specific labelling rules introduced the new EU organic logo which identifies organic products from the year 2010 onwards. Imported organic products must also comply with rules which have been recognised as equivalent to the EU's rules.

EU organic logo (the colour may differ)

UK-BIO-000
EU/Non-EU Agriculture

Code number of the control body

UK-BIO-000

Indication of the place where the agricultural raw materials of which the product is composed have been farmed: 'EU/Non-EU Agriculture'

EU or non-EU might be supplemented by a country in the case where all agricultural raw materials of which the product is composed have been farmed in that country.

ISO code of the country where the control took place

Reference number of maximum 3 digits

Link with the organic production, such as BIO, ECO, OKO, ORG...

Organic production and labelling of organic products (EC) 834/2007 and (EC) 889/2008

As with farmers, organic food processors need to follow a set of legal requirements if they are to fulfil criteria that allow them to use the EU organic logo and label. These requirements – the majority of which came into effect at the start of 2009 following repealing of previous legislation (EEC) 2092/91 – are defined in the Council Regulation (EC) 834/2007 and in the Commission Regulation (EC) 889/2008 laying down detailed implementing rules. Organic food processors are subject to official EU control systems, including at least once a year physical inspection to ensure they abide by their legal requirements. Organic food processors should:

- produce goods mainly from ingredients of organic agricultural origin, themselves organically produced;
- use non-organic agricultural ingredients only if authorised under the EU organic farming legislation or provisionally by EU Member States;
- use only a very limited number of additives or processing aids, and under certain conditions, which are authorised by the EU organic farming legislation;
- not use artificial flavourings and colorants, nor genetically modified organisms (GMOs) and substances produced from GMOs;
- ensure organic and non-organic products are stored, handled and processed separately at all times.

The labelling of organic products must respect all general legislation on food labelling and a set of labelling rules specific to organic products. These include the mandatory use – as from 1 July 2010 and progressively until 2012 – of an EU organic logo for all pre-packaged organic food produced in the EU, which guarantees that:

- at least 95 % of the ingredients were organically produced;
- the product complies with the EU production rules;
- the product was controlled at each step of the food chain and the code number of the control body is shown on the label;
- the place where the agricultural ingredients were farmed is indicated on the label.

Information on the number of registered organic operators that carry out food and beverage processing shows that the highest number across the EU in 2009 were located in Italy (8 388), followed by France (5 233, in 2008); note that these totals also include operators manufacturing prepared animal feeds and beverages, which are excluded from Table 3.3 due to space constraints and that there is no data available for Germany and several other Member States.

Table 3.3 Number of registered organic operators processing products from organic farming, 2009
(units)

	Meat & meat products	Fruit & vege-tables	Oils & fats	Dairy products	Grain mill products	Other food products
EU (1)	2 313	4 840	3 230	1 389	1 412	11 584
BE	57	79	14	39	33	271
BG	0	29	5	3	1	13
CZ	63	35	3	38	14	146
DK	131	46	7	60	19	149
DE	:	:	:	:	:	:
EE	2	15	2	3	11	8
IE	22	32	0	12	1	36
EL	96	555	897	106	92	700
ES	223	605	310	109	33	1 261
FR (2)	391	253	50	180	167	3 810
IT	383	1 715	1 794	425	675	2 260
CY	:	:	:	:	:	:
LV	6	15	2	13	7	16
LT	2	7	1	2	3	23
LU	:	:	:	:	:	:
HU	30	111	9	21	28	124
MT	:	:	:	:	:	:
NL	151	336	59	105	91	705
AT	:	:	:	:	:	:
PL	17	95	8	4	31	126
PT	:	:	:	:	:	:
RO	3	11	2	8	15	20
SI	8	18	3	5	1	28
SK	5	4	2	12	6	32
FI	53	95	6	23	70	100
SE	128	75	28	30	54	148
UK	542	709	28	191	60	1 608
NO	129	67	2	54	26	159

(1) Sum based on available information.
(2) 2008.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_act3)

Output of processed food and beverages

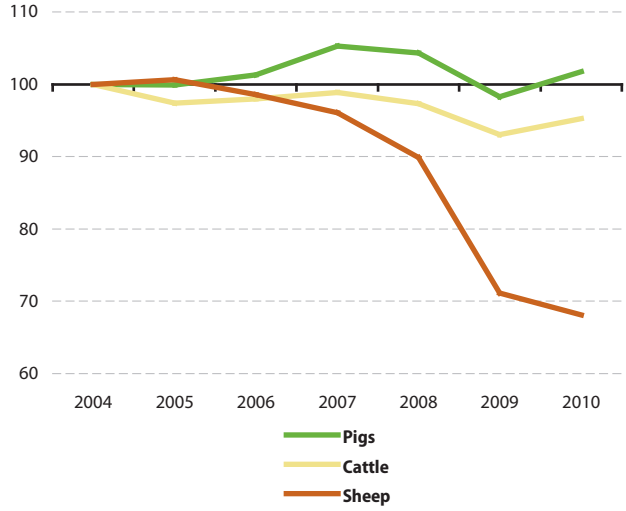
Animal output

Every year, more than 300 million pigs, sheep and cattle are killed in EU-27 slaughterhouses for meat production; although a precise EU total is not available for poultry, the figure is in excess of 6 000 million birds.

The quantity of meat production within the EU-27 was relatively stable during the last decade, aside from reductions in output during 2008 and 2009 – which may, in part, be associated with the global financial and economic crisis. The production of pig meat was 22.0 million tonnes in the EU-27 in 2010, considerably higher than the corresponding figures for poultry (11.7 million tonnes, 2009), cattle (7.9 million tonnes) or sheep (0.7 million tonnes).

The largest EU producers of pig meat were Germany, Spain, France, Poland and Denmark, while France, Germany and Italy each slaughtered in excess of a million tonnes of cattle in 2010. While pig and cattle meat production was relatively widely spread, sheep meat production was far more concentrated – the United Kingdom and Spain were together responsible for more than half (56.6 %) of the EU-27's output in 2010. The production of meat from goats and horses was also highly concentrated; note that output was generally low for both these types of meat.

Figure 3.8: Slaughtered production, EU-27
(2004=100, based on tonnes of carcass weight)



Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr2)

EU-27 production of pig and cattle meat fell by around 5 % between 2008 and 2009, while there was a far greater decline in the output of sheep meat (in excess of 20 %). The decline in sheep meat production could be largely attributed to falling output in Spain – around 20 % in both 2008 and 2009. In contrast, the production of poultry meat continued to rise in 2008 and 2009, by around 5 % in each year – perhaps reflecting a substitution effect as consumers switched to poultry from more expensive alternatives in the face of economic concerns or away from other meats with higher levels of saturated fat for dietary reasons.

Table 3.4: Slaughtered production, 2010 (1)

(1 000 tonnes of carcass weight)

	Pigs	Cattle	Sheep	Poultry	Goats	Horses
EU-27	22 041	7 902	717	11 651	:	:
BE	1 129	263	3	513	0	3
BG	37	5	4	96	0	0
CZ	276	74	0	188	0	0
DK	1 666	131	2	184	0	0
DE	5 438	1 183	20	1 380	0	3
EE	32	9	0	16	0	0
IE	214	559	48	124	:	:
EL	114	58	71	178	36	:
ES	3 401	598	125	1 345	9	6
FR	2 010	1 521	83	1 712	7	5
IT	1 633	1 075	36	1 180	1	25
CY	57	4	3	28	2	:
LV	23	18	0	23	0	0
LT	55	43	0	75	0	:
LU	10	10	0	:	0	0
HU	416	27	0	360	0	0
MT	7	1	0	4	0	0
NL	1 288	389	13	799	1	0
AT	542	225	7	113	1	0
PL	1 741	386	1	1 342	0	10
PT	384	94	10	296	1	0
RO	234	27	3	287	0	:
SI	25	36	0	61	0	0
SK	69	14	1	64	0	:
FI	203	82	1	96	0	0
SE	262	147	5	119	0	1
UK	774	925	281	1 571	0	0
HR	89	55	1	60	:	:

(1) EU-27, 2009 for poultry; all data for horses, 2008.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_in_pagr2)

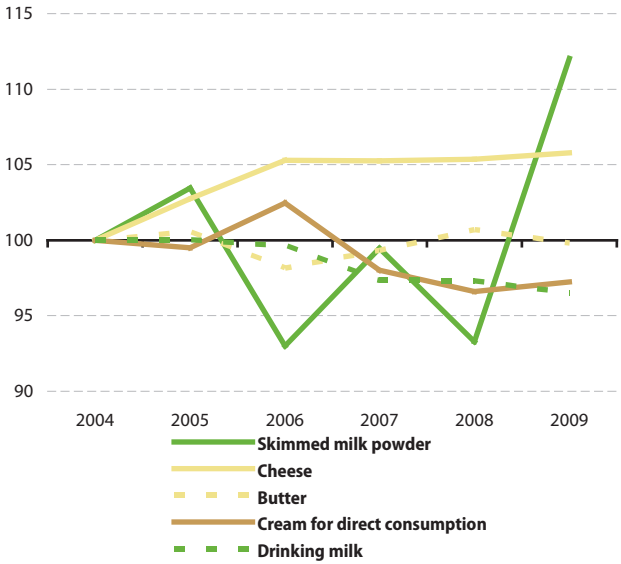
Output of animal products

Not all animals are reared for slaughter, some are kept for breeding purposes, and others (particularly cows) are reared for milk. EU output of dairy products remained relatively unchanged during the five-year period from 2004 to 2009, with the most significant changes being recorded for cheese (production rising overall by slightly more than 5 %) and skimmed milk powder (where output fluctuated).

Report from the European Commission to the European Parliament and the Council on animal cloning in food production (COM(2010) 585)

This report presented an assessment of cloning technology in relation to food production. As with other breeding techniques, the Commission considers it important to undertake an assessment of the possible risks associated with food safety and animal welfare. The report also examined the ethical dimension, trade implications and the consumer's right to be informed about production processes. As a result, the Commission proposed to suspend temporarily the use of cloning in the EU for the reproduction of all food producing animals, as well as the marketing of food from clones.

Figure 3.9: Production of dairy products, EU average (1)
(2004=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, online data code: apro_mk_pobta)

The quantity of cows' milk collected in the EU-27 in 2008 was 134.4 million tonnes. Subject to data availability (see Table 3.5 for more details), Germany (27.5 million tonnes) recorded the highest quantity of cows' milk collected among the EU Member States and was also the largest producer of cheese (just under 2 million tonnes), cream (568 000 tonnes), butter (410 000 tonnes) and skimmed milk power (286 000 tonnes) in 2009; the largest quantity of drinking milk was produced in the United Kingdom (6.7 million tonnes).

Table 3.5: Cows' milk collected and products obtained, 2009 (1)
(1 000 tonnes)

	Cows' milk collected	Drinking milk	Cream for direct consumption	Skimmed milk powder	Butter	Cheese
EU-27	134 362	:	:	:	:	:
BE	2 954	660	139	75	22	72
BG	600	58	1	0	1	72
CZ	2 354	644	44	19	27	113
DK	4 734	482	63	21	36	321
DE	27 461	5 288	568	286	410	1 999
EE	612	89	28	7	7	37
IE	4 944	509	21	75	120	:
EL	685	467	17	:	1	195
ES	5 742	3 566	133	9	34	306
FR	22 898	3 638	352	222	341	1 860
IT	10 500	2 690	130	:	:	1 178
CY	152	76	4	:	0	14
LV	595	72	27	:	4	29
LT	1 274	88	2	20	12	92
LU	271	:	:	:	:	:
HU	1 407	387	6	:	5	75
MT	40	29	0	0	0	3
NL	*11 469*	710	34	:	:	714
AT	2 716	716	61	6	:	142
PL	9 140	1 461	240	97	120	634
PT	1 868	837	17	12	29	65
RO	992	222	47	2	10	69
SI	517	143	15	:	:	18
SK	852	260	27	4	7	34
FI	2 281	734	54	17	48	105
SE	2 933	905	104	27	24	108
UK	13 237	6 713	254	:	:	322

(1) EU-27 and Malta, 2008.

Source: Eurostat (Agricultural products statistics, online data code: apro_mk_pobta)

Output of quality products and labelling

Recent years have witnessed a shift in the focus of EU food and feed legislation towards ensuring quality. For example, the status of quality wines produced in specified regions is controlled according to management and production methods and geographical location, in order to differentiate quality wines from table wines (Commission Regulation (EC) 607/2009). The quantity of quality wine produced (subject to data availability – see Table 3.6) moved close to 70 million hectolitres across the EU in 2009, with France producing almost one third of the total.

Table 3.6: Usable production of quality wines

(1 000 hectolitres)

	1999			2009 (1)		
	Total	Red/rosé	White	Total	Red/rosé	White
BE	0	0	0	2	0	2
BG	:	:	:	:	:	:
CZ	:	:	:	210	53	158
DK	0	0	0	0	0	0
DE	10 193	2 685	7 508	9 482	3 806	5 676
EE	:	:	:	0	0	0
IE	0	0	0	:	:	:
EL	304	133	171	345	175	170
ES	12 005	7 125	4 880	13 197	8 177	5 020
FR	26 426	:	:	21 511	13 443	8 068
IT	12 752	6 665	6 087	14 441	8 208	6 233
CY	:	:	:	3	:	:
LV	:	:	:	47	3	44
LT	:	:	:	0	0	0
LU	144	3	141	130	7	123
HU	:	:	:	2 083	792	1 291
MT	:	:	:	10	7	3
NL	0	0	0	0	0	0
AT	2 109	653	1 456	2 377	823	1 554
PL	:	:	:	:	:	:
PT	1 910	:	:	2 915	:	:
RO	:	:	:	:	:	:
SI	:	:	:	554	211	343
SK	:	:	:	370	131	239
FI	0	0	0	0	0	0
SE	0	0	0	0	:	:
UK	4	0	4	0	0	0

(1) Denmark and Sweden, 2007.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_pd_dmwin1)

Table 3.7: Quantity of sold production of selected food and beverage products, EU-27, 2009

	(1 000 tonnes)
Wheat or meslin flour	30 201
Fresh bread containing by weight in the dry matter state <= 5% of sugars and <= 5% of fat (excluding with added honey; eggs; cheese or fruit)	*20 193*
Refined white cane or beet sugar in solid form	16 089
Prepared & preserved meat, meat offal or blood, including prepared meat & offal dishes	12 463
Preserved vegetables (except potatoes), including prepared vegetable dishes	9 880
Cake & pastry products	*6 200*
Grated, powdered, blue-veined & other non-processed cheese	*6 000*
Frozen potatoes, prepared or preserved	*4 500*
Frozen vegetables & mixtures of vegetables (excluding potatoes)	4 209
Unripened or uncured cheese (fresh cheese) (including whey cheese & curd)	*3 220*
Salt suitable for human consumption	2 996
Uncooked pasta (excluding containing eggs or stuffed)	2 822
Margarine & reduced/low fat spreads	2 800
Prepared & preserved potatoes (excluding frozen)	*2 696*
Sauces & preparations, mixed condiments & seasonings (excluding soya sauce, tomato ketchup, other tomato sauces, prepared mustard)	2 647
Fish, crustaceans & molluscs, including prepared meals & dishes	2 189
Virgin olive oil	*2 026*
Butter (fat content by weight <= 85%)	*1 813*
Roasted coffee, not decaffeinated	1 702
Jams, marmalades, fruit jellies, nut purees/pastes	1 602
Uncooked pasta containing eggs (excluding stuffed)	1 026
	(million litres)
Mineral waters & aerated waters, unsweetened	*45 000*
Beer made from malt (excl. non-alcoholic beer, beer containing <= 0.5% by volume of alcohol) (1)	40 128
Waters, with added sugar, other sweetening matter or flavoured, i.e. soft drinks	34 656
Whisky (1)(2)	*640*
Vodka <= 45.4% (1)(2)	303

(1) Excluding alcohol duty.
(2) Litres of alcohol 100 %.

Source: Eurostat (Statistics on the production of manufactured goods, online data code: DS_066341)

Aside from quality wines, protected geographical origins are also used as a quality guarantee for a range of other food and beverage products, for example, through the protected designation of origin (PDO), the protected geographical indication (PGI) and traditional speciality guaranteed (TSG); each of these has its own logo to help consumers easily identify authentic products. The names of more than 500 products are currently registered as either PDOs or PGIs. Fruit, vegetables and cereals, cheeses, meats and (olive) oils had the highest number of registered names for protected foodstuffs in the EU-27 in 2008. The vast majority of these products were grown and processed/manufactured in Greece, Spain, France, Italy or Portugal.

Guaranteeing agricultural product quality

EU quality schemes identify products and foodstuffs that should be farmed and produced/processed to exacting specifications – be these in relation to geographical indications, traditional specialties, organic produce or certification schemes.

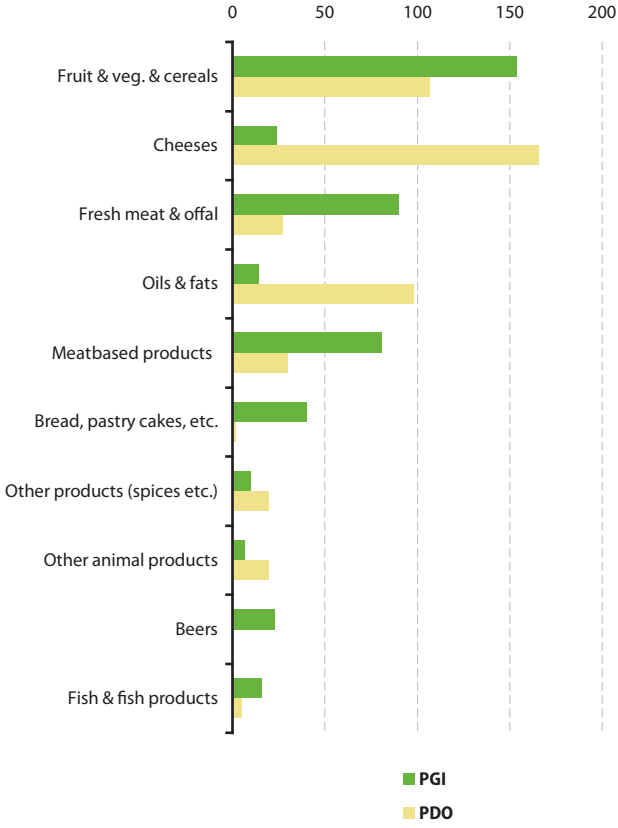
A set of proposals was put forward in a Communication from the European Commission to the European Parliament and Council (COM(2009) 234) in order to achieve greater coherence and consistency as regards agricultural product quality, including the:

- adoption of obligatory place-of-farming labelling;
- replacement of detailed marketing standards by a general standard;
- establishment of guidelines covering food quality certification schemes;
- creation of a register for all geographical indications;
- improvement of international protection of geographical indications;
- replacement of the traditional specialties scheme.

General food labelling is governed by Directive 2000/13/EC. Nutritional labelling is regulated through Directive 90/496/EEC; it is optional, unless a nutritional claim is made by a manufacturer, in which case the labelling of such information becomes compulsory.

Labelling provides one means for food and beverage processors to pass on essential information (such as use-by dates and safety warnings), as well as other details which may be used by consumers when they are trying to make informed purchasing decisions (for example, nutritional labelling and recycling details). As such, labelling can be used by food processors to highlight the benefits or advantages of their products, especially when these relate to additional costs that may have been incurred during the production/processing of food items (the use of animal-friendly production techniques, or organic food products).

Figure 3.10: Count of registered names of protected designation of origin and protected geographical indications, EU-27, 2008
(units)



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

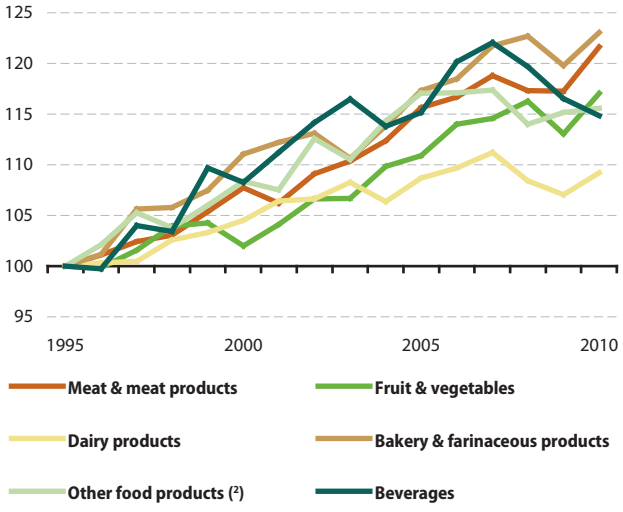
Production indices and producer prices for processed food and beverages

During the period from 1995 to 2007 there was a general upward progression for EU-27 production volume indices across a range of food and beverage manufacturing activities. Nevertheless, output grew at a considerably slower pace than the manufacturing (NACE Section C) average, with the largest gains in output recorded for the manufacture of beverages (Division 12), bakery and farinaceous products (Group 10.7).

There was an abrupt downturn in 2008 for the manufacture of many different foods and beverages, as the effects of the financial and economic crisis took hold. Nevertheless, EU-27 food and beverages output fell by a relatively small amount compared with the manufacturing average, likely due to many of these products being basic consumer necessities. The rebound in overall manufacturing activity (up 7.3 % in 2010) was far more pronounced than for food and beverages manufacturing, with the biggest gains (almost 4 %) recorded for the manufacture of meat and meat products (Group 10.1) and the processing of fruit and vegetables (Group 10.3).

Figure 3.11: Volume index of production, food and beverages manufacturing, EU-27 (1)

(1995=100)



(1) Estimates.
(2) NACE Group 10.8.

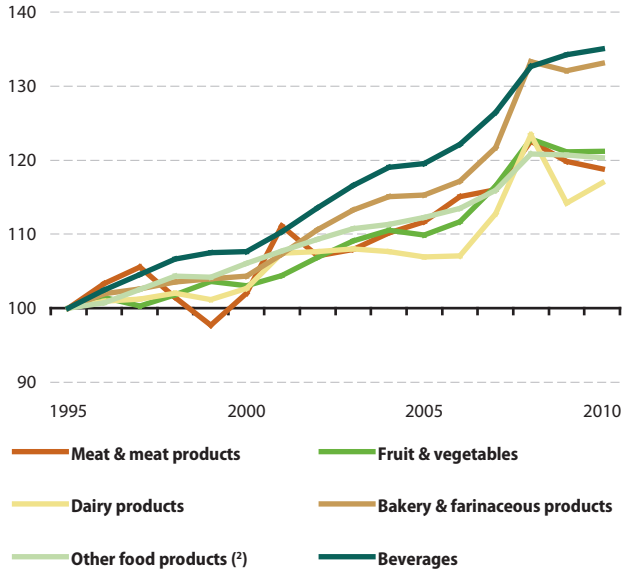
Source: Eurostat (Short-term business statistics, online data code: sts_inpr_a)

Compared with price developments in the EU-27 for total manufacturing, the pace at which domestic output prices for food and beverages manufacturing rose during the period from 1995 to 2010 was fairly typical. The fastest expansion in prices was recorded for the manufacture of beverages (2.0 % per annum), bakery and farinaceous products (1 9 % per annum), which was only marginally higher than the manufacturing average over the same period (1.7 % per annum). These long-term averages are influenced by a rapid acceleration in output prices in 2007 and 2008, in particular for bakery and farinaceous products, reflecting a surge in global cereal prices that peaked in the first half of 2008.

The pace at which domestic output prices rose between 1995 and 2010 for other food and beverages manufactured in the EU-27 remained below the total manufacturing average. Price developments in 2009 and 2010 were more subdued, with domestic output prices for some food and beverage manufacturing activities falling.

Figure 3.12 Domestic output price indices, food and beverages manufacturing, EU-27 (1)

(1995=100)



(1) Estimates.
(2) NACE Group 10.8.

Source: Eurostat (Short-term business statistics, online data code: sts_inppd_a)

Sales of processed food and beverages

Data on EU-27 sales (turnover) of various food and beverage processing subsectors show that the largest activity in 2008 was the manufacture of meat products (NACE Rev. 2 Group 10.1), followed by other food products, beverages, and dairy products. A snapshot of EU-27 sold production for a list of selected products is based on domestic sales and those for export; these sales may go to downstream industrial clients, distributors, or directly to households.

Table 3.8: Turnover, food and beverage manufacturing, 2008
(EUR million)

	Meat & meat prod.	Fruit & vege-tables	Dairy prod.	Bakery & farina-ceous prod.	Other food prod. (1)	Other food manuf. (2)	Bever-ages
EU-27	190 182	:	139 459	111 827	:	116 724	146 157
BE	5 267	3 059	4 241	3 415	7 973	5 994	4 704
BG	897	265	372	493	638	688	913
CZ	*2 884*	*308*	*1 864*	*1 723*	*2 231*	*1 436*	*2 822*
DK	5 374	723	:	1 422	3 000	:	1 517
DE	39 522	9 258	27 593	22 511	28 423	16 916	21 228
EE	246	56	383	144	134	:	263
IE	4 275	277	3 556	878	10 437	512	2 950
EL	:	:	:	:	:	:	:
ES	19 637	7 491	10 659	7 520	9 931	18 643	17 206
FR	35 750	8 235	26 780	20 945	27 212	13 655	24 694
IT	19 153	8 988	17 423	17 985	18 184	15 386	:
CY	325	80	234	335	67	:	261
LV	375	43	349	201	158	335	396
LT	615	57	856	289	306	357	497
LU	116	:	:	198	:	:	169
HU	2 645	875	1 106	1 072	1 324	1 307	2 081
MT	:	:	:	:	:	:	:
NL	8 248	:	9 642	4 815	:	:	4 754
AT	3 276	1 469	2 394	2 300	2 238	1 131	4 311
PL	11 800	3 753	6 064	4 195	6 759	4 940	8 498
PT	2 199	:	1 703	1 773	1 452	2 959	2 993
RO	2 481	350	1 053	1 582	1 300	1 369	2 890
SI	670	98	316	317	119	312	330
SK	703	116	585	492	654	528	764
FI	2 499	523	:	1 066	1 381	:	1 207
SE	3 502	1 050	2 752	1 760	2 789	:	1 811
UK	16 624	5 467	9 609	12 116	21 670	11 122	:
HR	1 121	79	950	748	1 081	:	931

(1) NACE Group 10.8.
(2) Fish, crustaceans and molluscs; vegetable and animal oils and fats; grain mill products, starches (NACE Groups 10.2, 10.4 and 10.6).

Source: Eurostat (Structural business statistics, online data code: sbs_na_ind_r2)

Table 3.9: Value and average price of sold production of selected food and beverage products, EU-27, 2009 (1)

	(EUR million)	(EUR per kg)
Wheat or meslin flour	*9 240*	*0.3*
Fresh bread containing by weight in the dry matter state <= 5% of sugars and <= 5% of fat (excluding with added honey; eggs; cheese or fruit)	*26 951*	*1.3*
Refined white cane or beet sugar in solid form	9 060	0.6
Prepared & preserved meat, meat offal or blood, including prepared meat & offal dishes	46 976	3.8
Preserved vegetables (except potatoes), including prepared vegetable dishes	12 324	1.2
Cake & pastry products	*18 900*	*3.0*
Grated, powdered, blue-veined & other non-processed cheese	*24 000*	*4.0*
Frozen potatoes, prepared or preserved	*2 500*	*0.6*
Frozen vegetables & mixtures of vegetables (excluding potatoes)	4 134	1.0
Unripened or uncured cheese (fresh cheese) (including whey cheese & curd)	*11 700*	*3.6*
Salt suitable for human consumption	277	0.1
Uncooked pasta (excluding containing eggs or stuffed)	2 865	1.0
Margarine & reduced/low fat spreads	3 805	1.4
Prepared & preserved potatoes (excluding frozen)	*4 084*	*1.5*
Sauces & preparations, mixed condiments & seasonings (excluding soya sauce, tomato ketchup, other tomato sauces, prepared mustard)	*6 183*	*2.3*
Fish, crustaceans & molluscs, including prepared meals & dishes	8 992	4.1
Virgin olive oil	*3 643*	*1.8*
Butter (fat content by weight <= 85%)	*5 182*	*2.9*
Roasted coffee, not decaffeinated	8 308	4.9
Jams, marmalades, fruit jellies, nut purees/pastes	*3 200*	*2.0*
Uncooked pasta containing eggs (excluding stuffed)	1 437	1.4
	(EUR million)	**(EUR per litre)**
Mineral waters & aerated waters, unsweetened	*9 014*	*0.2*
Beer made from malt (excl. non-alcoholic beer, beer containing <= 0.5% by volume of alcohol) (2)	29 605	0.7
Waters, with added sugar, other sweetening matter or flavoured, i.e. soft drinks	16 806	0.5
Whisky (2)(3)	*2 800*	*4.4*
Vodka <= 45.4% (2)(3)	1 989	6.6

(1) Based on the same product headings as found in Table 3.7.
(2) Excluding alcohol duty.
(3) Litres of alcohol 100 %.

Source: Eurostat (Statistics on the production of manufactured goods, online data code: DS_066341)

Waste

There are a range of externalities that may result from food and beverage processing, among which one of the most important is waste. The EU's food, beverages and tobacco processing sector generated over 35 million tonnes of animal and vegetal waste in 2008, of which some 7.5 million tonnes was animal waste from food preparation.

Table 3.10: Generated non-hazardous animal waste within food, beverages and tobacco manufacturing, 2008

	Animal & vegetal waste		Animal waste from food prep.	
	(1 000 tonnes)	(% of total waste in food, bev. & tob. process. sector)	(1 000 tonnes)	(% of total waste in food, bev. & tob. process. sector)
EU-27	35 090	65.8	7 533	14.1
BE	2 470	61.5	282	7.0
BG	112	52.4	8	3.7
CZ	175	47.1	56	15.0
DK	92	23.7	92	23.7
DE	1 596	54.5	322	11.0
EE	130	82.9	13	8.6
IE	522	32.8	228	14.3
EL	137	28.1	40	8.3
ES	2 070	64.7	1 009	31.6
FR	831	30.4	810	29.6
IT	5 336	69.0	69	0.9
CY	28	66.5	14	34.6
LV	55	36.9	14	9.3
LT	386	84.4	25	5.5
LU	4	33.0	1	5.6
HU	705	71.5	138	14.0
MT	5	99.3	5	96.7
NL	6 336	82.7	459	6.0
AT	1 473	71.5	277	13.4
PL	5 544	79.6	1 513	21.7
PT	473	58.8	116	14.5
RO	578	60.1	23	2.4
SI	99	83.9	27	23.4
SK	263	70.6	13	3.6
FI	463	47.4	144	14.7
SE	614	62.3	145	14.7
UK	4 594	66.3	1 688	24.4
LI	0	28.6	0	14.3
NO	644	77.6	549	66.2
HR	48	36.0	26	19.8
MK	6	13.2	0	0.7
TR	243	26.2	31	3.3

Source: Eurostat (Waste statistics, online data code: env_wasgen)

Wholesaling, transport and external trade

4

Context

This chapter looks at a collection of activities that link the other stages in the food chain together, providing transport or trading services to agricultural holdings as well as food and beverage manufacturers, retailers and consumer service providers; it is rare for such services to be provided directly to final consumers. Rather, these intermediary stages generally provide business to business services such as packaging, transporting, storing, shipping, importing and delivering.

As with other stages in the food chain, great care is required to ensure that food safety is respected through the application of procedures that ensure food is preserved correctly; this is particularly true for logistics concerning fresh produce, due to the perishable nature of these goods. When transporting live animals, Council legislation from 2004 aimed to radically improve the enforcement of animal transport rules in the EU, for example by defining responsibilities during the animal transport chain, introducing more efficient monitoring tools, establishing stricter rules for journeys of more than eight hours, and substantially upgrading vehicle standards, all in the goal of improving animal welfare.

Potential hazards for the wholesale and transportation of food include incorrect temperature and humidity, as well as contamination from bacteria (for example, salmonella, listeria or E. coli). Maintaining a low temperature is often an important criteria for the storage and carriage of food items (for example, milk, fish, meat or prepared meals). Likewise, it is necessary to keep frozen foods at temperatures that prevent thawing before products reach their destination. Air that is too dry or too damp may also potentially damage fresh foods: excessive humidity can lead to the growth of mould, or fungus, while excessive dryness can lead to some foods dehydrating; humidity may be controlled via air circulation systems.

Transport and storage systems increasingly rely upon the application of modern technology, for example the use of radio-frequency identification (RFID) in tracking and traceability systems, or the use of technologies that inhibit oxygen from penetrating packaging, and thereby help preserve the quality of products for longer. Packaging has the potential to preserve the integrity, safety and quality of food products in transport and storage. Packaging also carries important information via labelling (such as brand names, use-by dates, ingredients, pack sizes, refrigeration or cooking instructions) to help consumers to store and use products more safely.

Structural overview

Food and beverage wholesalers are intermediaries operating between business customers, for example between agricultural holdings and processing enterprises, between different processors (such as a sugar refinery and a chocolate manufacturer), or between processing enterprises and food retailers/service providers. A distinction is made between agents (brokers) who connect buyers and sellers on a commission basis, and own account wholesalers, who buy and resell the products, and may also carry out a variety of operations (grading and packing, loading and delivering).

There were more than 275 000 enterprises engaged in the wholesale of food, beverages and tobacco in the EU-27 in 2008; they employed just over two million persons. Their sales totalled almost EUR 1 000 billion, which was similar to the turnover generated by food and beverage manufacturing enterprises (see Chapter 3). The largest activities (in value added terms) included own account non-specialised food, beverage and tobacco wholesaling, and own account fruit and vegetable and beverage wholesaling. Agents accounted for about a quarter of all food, beverage and tobacco wholesalers, while their share of sectoral turnover, value added and employment was between 6 and 7 %.

Table 4.1: Agents and own account wholesale of food, beverages and tobacco, main indicators, EU-27, 2008

	Enterprises (units)	Persons employed (1 000)	Turnover (EUR million)	Value added (EUR million)
Agents and own account wholesale of food, beverages & tobacco	275 110	2 002	979 421	85 221
Agents involved in the sale of food, beverages & tobacco	67 616	133	67 698	5 491
Wholesale (own account) of food, beverages & tobacco	207 494	1 868	911 723	79 730
Fruit & vegetables	44 476	418	143 842	15 485
Meat & meat products	23 617	178	87 089	7 077
Dairy products, eggs & edible oils and fats	14 380	:	86 371	5 981
Beverages	37 110	264	114 491	12 377
Tobacco products	2 193	40	86 347	3 441
Sugar & chocolate & sugar confectionery	10 031	*70*	33 784	3 342
Coffee, tea, cocoa & spices	5 528	38	15 076	2 242
Other food, incl. fish, crustaceans & molluscs	40 024	*270*	121 735	*11 653*
Non-specialised food, beverages & tobacco	30 136	475	222 987	18 132

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

Germany, Italy, the United Kingdom and Spain recorded the highest turnover for food, beverage and tobacco wholesaling in 2008 (France, not available). The average size of enterprises varied considerably between Member States: as average turnover per enterprise peaked at EUR 12.2 million in Germany, which was almost double the average in the United Kingdom and at least six times as high as in Spain or Italy. Luxembourg and Denmark also recorded relatively high turnover per enterprise, while this ratio was below EUR 2 million per enterprise in Hungary, Romania, Portugal, Slovenia and Bulgaria (where the lowest average was recorded, EUR 1.2 million per enterprise).

Table 4.2: Agents and own account wholesale of food, beverages and tobacco, main indicators, 2008

	Enter-prises	Local units (1)	Persons employed	Turnover	Value added
	(units)		(1 000)	(EUR million)	
EU-27	275 110	:	2 001.5	979 421	85 221
BE	:	5 064	:	:	:
BG	5 424	5 514	4 486.2	6 256	308
CZ	:	*3 772*	:	:	:
DK	1 828	1 973	2 106.2	19 694	1 507
DE	12 011	:	21 877.0	145 977	14 130
EE	520	545	:	:	:
IE	:	2 006	:	:	:
EL	:	:	:	:	:
ES	49 811	50 152	35 063.7	100 097	11 236
FR	:	21 417	:	:	:
IT	75 172	40 236	22 776.1	112 027	8 620
CY	720	825	647.5	1 699	241
LV	1 026	:	1 077.3	2 405	206
LT	758	1 038	1 556.2	2 956	288
LU	411	:	326.9	4 842	182
HU	5 257	5 183	3 885.4	10 680	679
MT	:	:	:	:	:
NL	7 219	7 645	8 040.5	:	:
AT	2 452	2 623	2 733.8	14 045	1 512
PL	15 824	:	12 343.1	36 144	2 866
PT	10 860	11 042	6 131.1	17 869	1 671
RO	*9 435*	:	*10 623.1*	*16 816*	*1 378*
SI	784	497	331.6	1 278	128
SK	622	:	1 169.5	3 714	307
FI	1 400	1 516	936.4	6 302	599
SE	5 053	4 735	3 715.1	23 821	2 036
UK	15 993	16 602	21 499.0	103 161	10 588
NO	1 802	1 742	1 710.3	26 656	1 634
HR	1 308	:	955.5	1 698	216

(1) Excluding agents involved in the sale of food, beverages and tobacco.

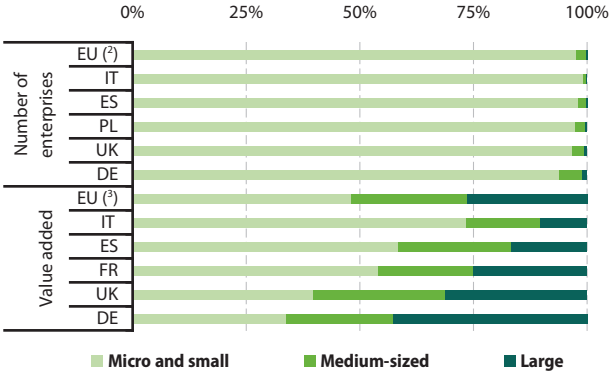
Source: Eurostat (Structural business statistics, online data codes: sbs_na_dt_r2 and sbs_r_nuts06_r2)

These cross-country patterns may reflect, to some degree, processing and retail structures, the quality of transport infrastructure, or population density. For example, large retailers (in north-west Europe) tend to deal with large wholesalers, or use buying groups to centralise their purchases. In contrast, more specialist food retailers (often found in southern Europe) may be more likely to deal with small, independent, regional wholesalers or source their products directly from farms/producers.

Country specialisation within wholesaling tends to reflect that within farming and/or food and beverage manufacturing. For example, fruit and vegetables wholesaling was relatively important in Spain, Italy and the Netherlands, while dairy wholesaling was relatively important in Denmark and France.

Generally, own account wholesaling (excluding agents) of food, beverages and tobacco in the EU was dominated by micro enterprises, as 85 % of enterprises operating in this sector employed fewer than ten persons. Together, micro and small enterprises (employing fewer than 50 persons) generated almost half (48.1 %) of the added value within the EU's own account food, beverage and tobacco wholesaling sector. In contrast, large wholesalers (employing 250 or more persons) accounted for just 0.3 % of the total number of enterprises, but contributed more than a quarter of total value added (26.5 %), which was slightly higher than the share (25.4 %) generated by medium-sized enterprises (employing between 50 and 249 persons).

Figure 4.1: Size class analysis of wholesale (own account) of food, beverages and tobacco, five largest Member States, 2008 (1)
(% of total)



(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; the Czech Republic, Estonia, Ireland, Greece, Cyprus, Luxembourg, Malta and Slovakia, incomplete or not available.
(3) Average based on available data; the Czech Republic, Ireland, Greece, France, Malta and Slovakia, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_dt_r2)

Transported food and beverage products

The transportation of foodstuffs can have a considerable environmental impact through fuel use for transportation itself (so-called food miles) and energy use for refrigeration. Bulk foodstuffs have traditionally been transported over long distances by ship, although increasing use is being made of aviation for

Table 4.3: National and international road transport of selected agricultural products and foodstuffs, 2007 (1)

(million tonnes)

	Foodstuffs & animal fodder		Live animals & sugar beet		Cereals		Potatoes, fresh or frozen fruit & veg.		Oilseeds & oleaginous fruits & fats	
	Nat.	Inter.	Nat.	Inter.	Nat.	Inter.	Nat.	Inter.	Nat.	Inter.
EU-27	1 676.4	62.3	115.4	:	246.8	:	281.1	23.3	:	:
BE	38.1	5.8	4.0	0.1	1.8	0.4	5.7	1.5	1.0	0.3
BG	5.8	0.3	0.3	:	3.3	0.1	0.4	0.1	1.6	:
CZ	33.0	1.4	4.6	0.1	11.0	0.7	4.5	0.2	0.8	0.3
DK	30.9	1.7	5.5	0.2	5.2	0.0	3.7	0.3	1.1	0.1
DE	357.5	13.0	21.8	0.2	24.2	1.5	31.7	1.9	15.0	0.7
EE	3.1	0.2	0.1	:	1.1	0.0	0.3	0.0	0.0	:
IE	29.2	1.5	2.0	0.1	2.6	0.1	1.8	0.1	0.2	:
EL	30.4	0.5	0.6	0.0	3.1	0.0	7.1	0.4	2.0	0.1
ES	181.1	4.8	12.8	0.1	33.4	0.2	44.3	8.1	6.8	0.4
FR	198.0	6.1	24.1	0.2	64.9	1.3	76.4	1.7	9.3	0.3
IT	101.3	3.8	4.5	:	24.7	0.2	23.3	1.3	3.4	0.2
CY	4.8	0.0	0.1	0.0	0.7	:	0.5	0.0	:	:
LV	3.7	0.5	0.0	:	0.9	0.0	0.2	0.0	0.3	0.0
LT	4.0	0.5	0.3	0.0	1.5	0.0	0.2	0.1	0.0	0.0
LU	0.8	0.5	0.0	0.0	0.1	0.0	0.3	0.0	:	0.0
HU	29.7	1.6	2.1	0.1	9.5	1.4	2.0	0.2	1.3	0.2
MT	:	:	:	:	:	:	:	:	:	:
NL	76.4	9.4	6.3	0.9	1.7	0.2	20.2	5.5	3.4	1.0
AT	22.4	2.2	1.6	0.0	1.6	0.4	2.9	0.3	0.4	0.1
PL	96.8	3.4	6.6	0.1	9.8	0.4	12.8	1.0	1.2	0.2
PT	28.8	1.0	1.0	0.1	4.4	0.1	3.2	0.2	1.8	0.1
RO	33.5	0.3	0.6	0.1	4.6	0.0	0.7	0.1	0.6	:
SI	3.0	0.3	0.2	0.0	0.2	0.1	0.3	0.1	0.0	0.0
SK	12.1	0.6	1.4	0.0	5.9	0.2	1.1	0.0	0.9	0.1
FI	25.3	0.2	1.6	0.0	4.5	:	1.3	0.0	0.2	:
SE	26.4	0.3	2.8	0.0	4.5	0.0	2.2	0.0	0.6	0.1
UK	300.4	2.4	10.5	0.0	22.0	0.0	34.0	0.3	9.3	0.0
NO	39.4	0.5	1.2	:	2.2	:	1.8	:	0.2	:

(1) Goods loaded in reporting country and destined for national or international (and cross-trade) destinations; EU-27, excludes Malta.

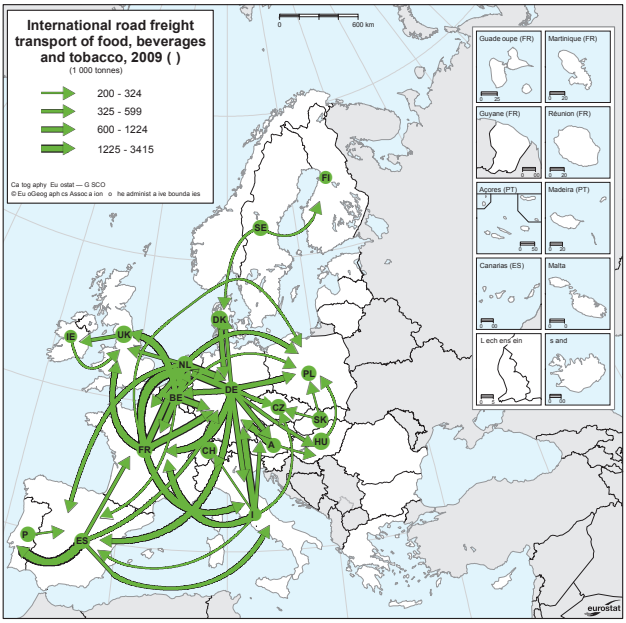
Source: Eurostat (Food: From farm to fork statistics, online data code: food_pd_aatran1; road transport statistics, online data code: road_go_cta7gtt)

transporting perishable goods. While some consumers appreciate the opportunity to buy a diverse range of foodstuffs from all over the world, year-round, regardless of the season, others give preference to the domestic supply of seasonal and local produce.

Road freight transportation of agricultural products and foodstuffs is largely a national operation, although certain foods are moved considerable distances around the EU by road – for example, fruit and vegetables being transported from Spain or the Netherlands.

Map 4.1: International road freight transport of food, beverages and tobacco, 2009 ([1])

(1 000 tonnes)



([1]) The top 50 flows of food products, beverages and tobacco are shown, subject to data availability.

Source: Eurostat (Road transport statistics, online data codes: road_go_ia_ugtt and road_go_cta_gtt)

External trade of food and beverages

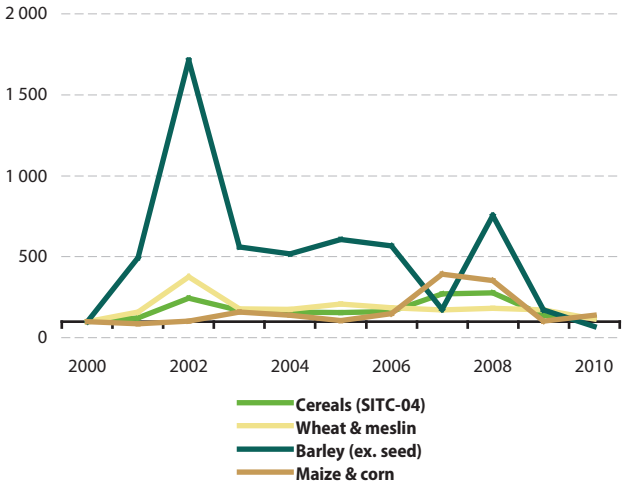
As noted on the previous page, food and beverages are increasingly traded internationally. The EU-27 imported 79.3 million tonnes of food and live animals and 3.4 million tonnes of beverages in 2010, with a trade deficit of 14 million tonnes for food and live animals, but a surplus of 6 million tonnes for beverages. EU-27 imports of food, live animals and beverages were valued at EUR 78.2 billion in 2010, when a deficit of EUR 5.1 billion was recorded. Food, live animals and beverages accounted for 5.2 % of total EU-27 imports of goods in 2010 – a share that was repeated in both quantity and value terms.

Data interpretation

Figures 4.2 to 4.23 and Tables 4.4 to 4.15 provide an analysis of the EU-27's imports of different food and beverage products: for each of these, the quantity of imports entering the EU's food chain is presented alongside information pertaining to the EU's most important trading partners. Note that all of the statistics in this section relate to extra-EU trade, in other words, only imports that originate from non-member countries – and that these imports generally account for a relatively small share of the EU market. Furthermore, these statistics relate to a moving EU aggregate that reflects the changing membership of the EU over time.

Figure 4.2: Quantity of extra-EU imports, cereals and cereal preparations, EU

(2000=100)



Source: Eurostat (Comext)

The EU-27 ran a considerable trade surplus for cereals, equal to 23.2 million tonnes in 2010. Wheat and meslin was the cereal that was most imported into the EU-27 (4.3 million tonnes), while there were also considerable imports of maize and corn (3.8 million tonnes). The main origin of EU-27 cereal imports was the Americas, with Canada, the United States, Brazil and Argentina all featuring among the top six partners in 2010.

Table 4.4: Quantity of extra-EU imports, cereals and cereal preparations, EU

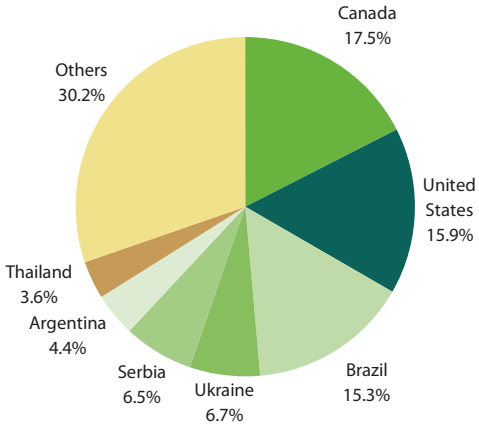
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Cereals (SITC-04)	8 290	12 880	13 465	22 520	22 842	11 433	10 437
Wheat & meslin	3 745	7 719	6 885	6 394	6 843	6 427	4 300
Barley (ex. seed)	72	435	405	125	542	122	51
Maize & corn	2 760	2 933	4 134	10 827	9 734	2 829	3 845

Source: Eurostat (Comext)

Figure 4.3: Origin of extra-EU imports, cereals and cereal preparations, EU-27, 2010

(% of total)



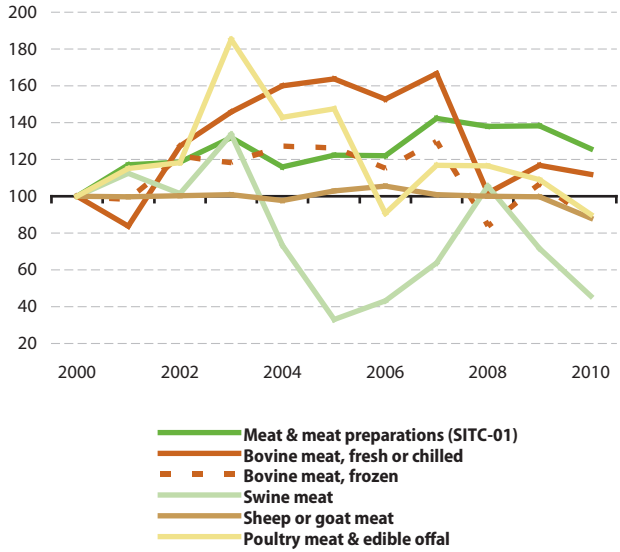
Source: Eurostat (Comext)

The following codes were used when extracting external trade data:
Cereals – SITC 04
Wheat & meslin – CN 1001
Barley (ex. seed) – CN 10030090
Maize & corn – CN 1005

Animal diseases and their control have had a substantial effect on the global meat trade in the last couple of decades (for example, dioxins, foot and mouth disease, or BSE). The quantity of meat and meat preparation imports generally rose over the last decade, despite contractions in 2004, 2008 and 2010. EU-27 imports stood at 1.4 million tonnes in 2010; the EU-27 was more than self-sufficient in pig meat and poultry.

Brazil was the most important origin of EU-27 meat and meat preparation imports, accounting for almost half of the total (45.8 % in 2010). A relatively high proportion of the EU-27's beef imports came from South America, its lamb imports from New Zealand and Australia, and its poultry imports from Brazil and Thailand.

Figure 4.4: Quantity of extra-EU imports, meats and meat preparations, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.5: Quantity of extra-EU imports, meats and meat preparations, EU

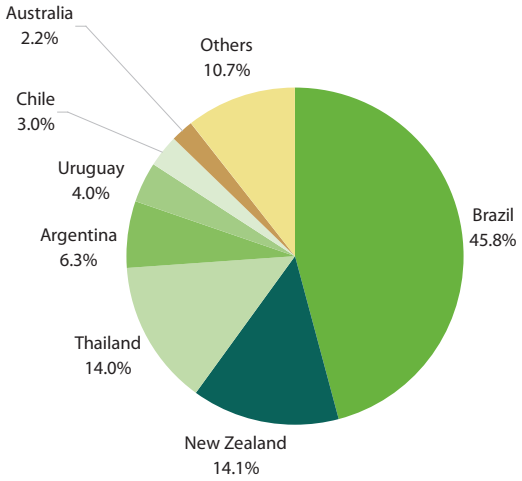
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Meat & meat preparations (SITC-01)	1 124	1 374	1 371	1 601	1 550	1 554	1 413
Bovine meat, fresh or chilled	104	170	158	173	106	121	116
Bovine meat, frozen	99	125	114	128	83	105	87
Swine meat	41	13	18	26	43	29	19
Sheep or goat meat	222	229	235	225	222	222	196
Poulty meat & edible offal	183	270	166	214	213	199	165

Source: Eurostat (Comext)

Figure 4.5: Origin of extra-EU imports, meat and meat preparations, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

The following codes were used when extracting external trade data:

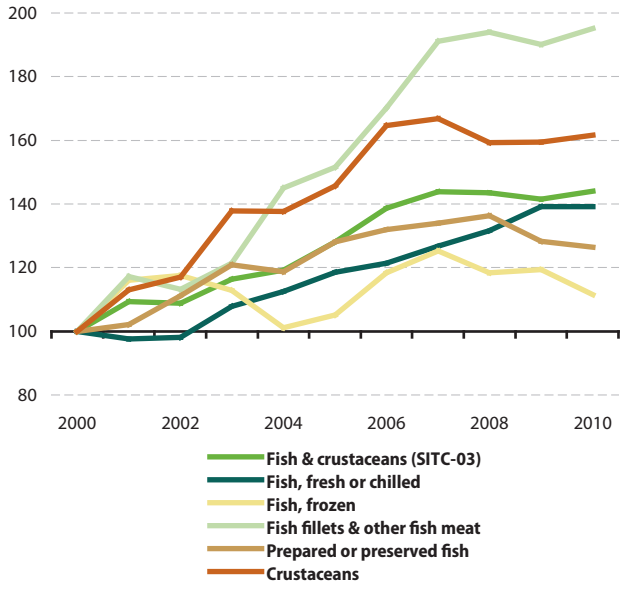
Meat & meat preparations – SITC 01
Bovine meat, fresh or chilled – CN 0201
Bovine meat, frozen – CN 0202
Swine meat – CN 0203
Sheep or goat meat – CN 0204
Poultry meat & edible offal – CN 0207

Among the ten groups of products selected within this section on external trade, fish and crustaceans (seafood) was the group where the EU-27 recorded its highest trade deficit in value terms (EUR 14 105 million) in 2010. Imports of most fish and crustaceans products rose at a fairly rapid pace during much of the last decade, although quantities fell or stagnated for some products towards the end of the period. The fastest expansion in imports was recorded for processed fish (fish fillets and other fish meat), while frozen fish recorded the slowest expansion during the last decade (in volume terms).

Norway was the largest supplier of fish and crustaceans to the EU-27 in 2010, accounting for just over one fifth (21.0 %) of all fish and crustacean imports. Norway is relatively specialised in exporting salmon and cod in a variety of different preparations (fresh, frozen, salted or smoked). China was the second most important origin of EU-27 fish and crustacean imports (10.8 % of the total), while Vietnam was third; imports from Asia are dominated by crustaceans (in particular, prawns and shrimps).

Figure 4.6: Quantity of extra-EU imports, fish and crustaceans, EU

(2000=100)



Source: Eurostat (Comext)

Table 4.6: Quantity of extra-EU imports, fish and crustaceans, EU

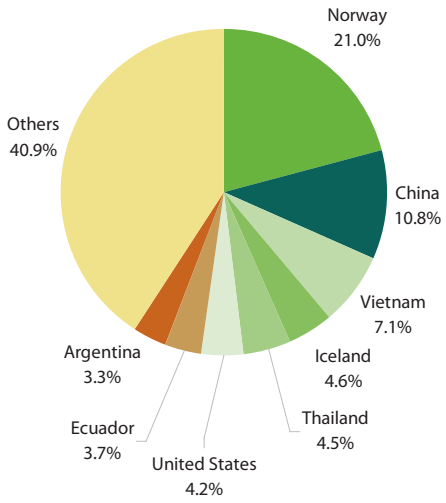
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Fish & crustaceans (SITC-03)	3 470	4 443	4 814	4 994	4 979	4 910	4 996
Fish, fresh or chilled	580	687	703	735	763	807	807
Fish, frozen	553	582	655	693	654	661	617
Fish fillets & other fish meat	713	1 080	1 212	1 362	1 382	1 355	1 390
Prepared or preserved fish	527	675	696	706	719	676	667
Crustaceans	318	463	524	531	507	507	514

Source: Eurostat (Comext)

Figure 4.7: Origin of extra-EU imports, fish and crustaceans, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

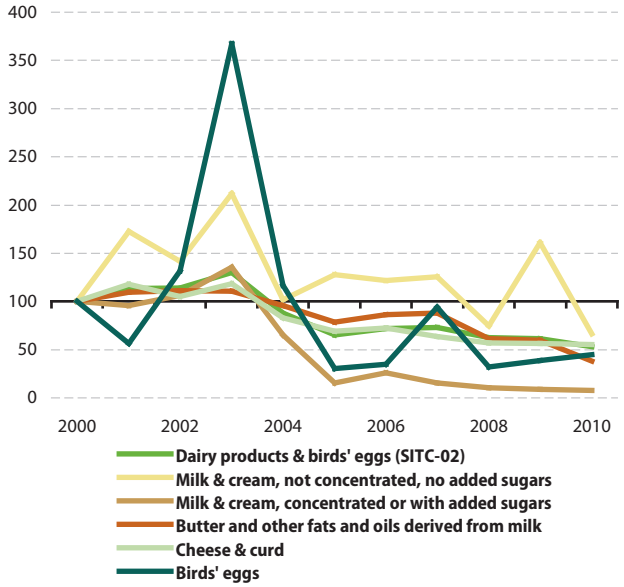
The following codes were used when extracting external trade data:
Fish & crustaceans – SITC 03
Fish, fresh or chilled – CN 0302
Fish, frozen – CN 0303
Fish fillets & other fish meat – CN 0304
Prepared or preserved fish – CN 1604
Crustaceans – CN 0306

In contrast to the rising quantity of fish and crustacean imported into the EU, there was a decline in the quantity of dairy imports (aside from the dramatic peak in imports of birds' eggs in 2003). Cheese and butter were the two most important product categories, together accounting for more than half of all the EU-27's dairy imports in 2010 (34.3 % and 16.6 % respectively). However, the quantity of butter imported into the EU-27 fell by 61.7 % between 2000 and 2010, while the corresponding figure for cheese was a reduction of 44.6 %.

Given the perishable nature of most dairy products, it is perhaps not surprising to find that more than half (53.2 %) of the EU-27's dairy imports came from neighbouring Switzerland – while Croatia, Norway and Albania also featured among the EU's ten most important trading partners for dairy products. However, the second and third largest suppliers of dairy imports were New Zealand and the United States, the former specialising in butter and accounting for over a quarter (26.7 %) of the EU's dairy imports in 2010.

Figure 4.8: Quantity of extra-EU imports, dairy products and birds' eggs, EU

(2000=100)



Source: Eurostat (Comext)

Table 4.7: Quantity of extra-EU imports, dairy products and birds' eggs, EU

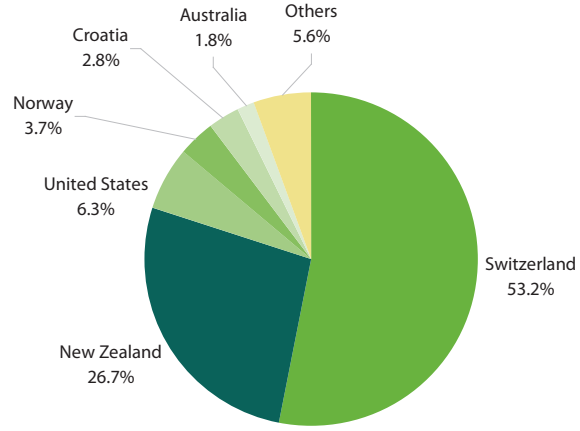
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Dairy products & birds' eggs (SITC-02)	452.0	294.4	324.1	331.2	282.8	278.2	240.1
Milk & cream, not concentrated, no added sugars	12.7	16.2	15.5	15.9	9.4	20.4	8.4
Milk & cream, concentrated or with added sugars	87.0	13.3	22.5	13.4	9.2	7.7	6.5
Butter & other fats & oils derived from milk	104.1	82.1	90.1	91.5	63.7	62.2	39.9
Cheese & curd	148.5	102.5	107.8	94.3	84.5	83.7	82.2
Birds' eggs	14.3	4.3	5.0	13.4	4.6	5.5	6.4

Source: Eurostat (Comext)

Figure 4.9: Origin of extra-EU imports, dairy products and birds' eggs, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

The following codes were used when extracting external trade data:

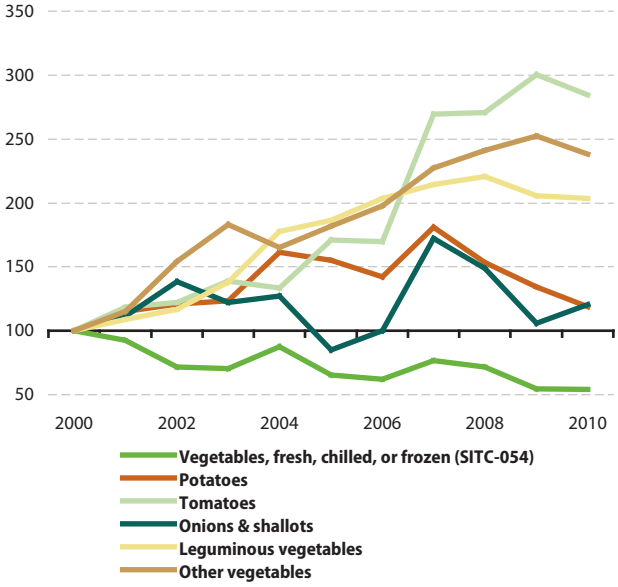
Dairy products & birds' eggs – SITC 02
Milk & cream, not concentrated, no added sugars – CN 0401
Milk & cream, concentrated or with added sugars – CN 0402
Butter and other fats and oils derived from milk – CN 0405
Cheese & curd – CN 0406
Birds' eggs – CN 0407

EU-27 imports of fresh, chilled or frozen vegetables often fluctuated considerably during the last decade, falling through to 2003, bouncing back in 2004, before repeating this pattern of decline followed by recovery in 2007, after which imports continued to decline. As a result, the quantity of EU-27 imports of fresh, chilled and frozen vegetables almost halved between 2000 and 2010, falling from 7.1 million tonnes to 3.8 million tonnes. The quantity of imports in 2010 was somewhat lower than the corresponding figure for EU-27 exports (4.2 million tonnes). However, these aggregated figures hide the fact that the EU-27 was a net importer of many different varieties of vegetable; the overall figures being influenced by a trade surplus of 428 482 tonnes for potatoes.

A group of countries from the Mediterranean Basin featured among the EU-27's main import partners for fresh, chilled or frozen vegetables. In 2010, some 15.3 % of the EU's imports of these vegetable products originated in Morocco, while Israel, Turkey and Egypt each accounted for between 9 and 10 % of the total, together with China.

Figure 4.10: Quantity of extra-EU imports, fresh, chilled or frozen vegetables, EU

(2000=100)



Source: Eurostat (Comext)

Table 4.8: Quantity of extra-EU imports, fresh, chilled or frozen vegetables, EU

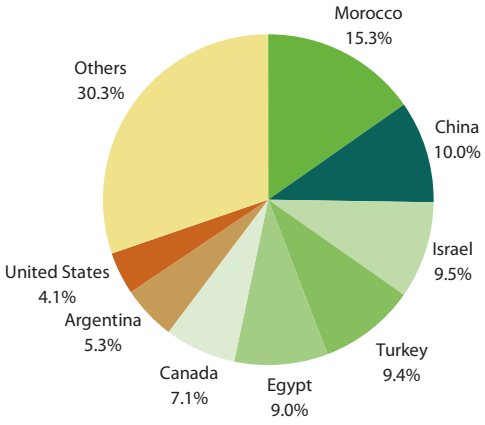
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Vegetables, fresh, chilled, or frozen (SITC-054)	7 102	4 635	4 402	5 436	5 090	3 882	3 837
Potatoes	340	528	484	615	522	456	403
Tomatoes	175	299	297	471	473	525	497
Onions & shallots	257	219	258	444	384	273	310
Leguminous vegetables	103	192	210	221	228	212	210
Other vegetables	201	366	398	458	485	508	480

Source: Eurostat (Comext)

Figure 4.11: Origin of extra-EU imports, fresh, chilled or frozen vegetables, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

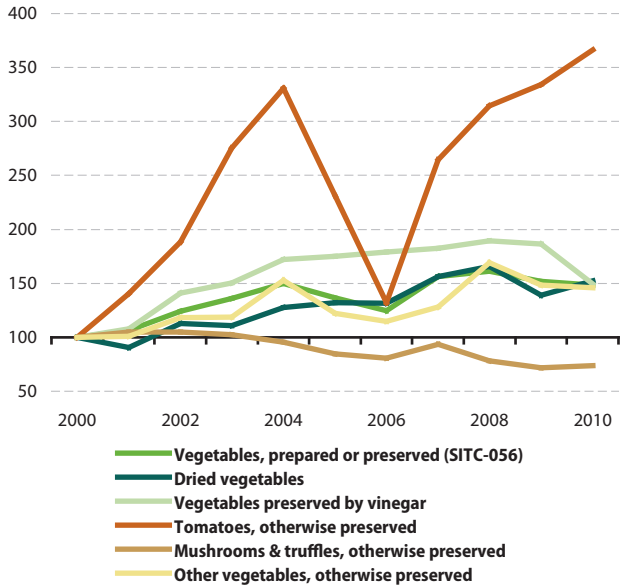
The following codes were used when extracting external trade data:

Vegetables, fresh, chilled, or frozen – SITC 054
Potatoes – CN 070190
Tomatoes – CN 0702
Onions & shallots – CN 070310
Leguminous vegetables – CN 0708
Other vegetables – CN 0709

EU-27 imports of prepared or preserved vegetables rose to 2004, after which they remained almost unchanged during the remainder of the most recent decade for which data are available (2000 to 2010), although imports fluctuated, first rising through to 2004, before declining in 2005 and 2006, and then following an upward trend again, before falling from 2008 through to 2010. At the end of the period under consideration, EU-27 imports of prepared or preserved vegetables had risen overall by 48.6 %. The EU-27 imported 1.2 million tonnes of prepared or preserved vegetables in 2010 – for comparison this was less than one third of the quantity of fresh, chilled or frozen vegetables that were imported in the same year. The EU-27 exported almost twice as many prepared or preserved vegetables as it imported, resulting in a trade surplus of 1.1 million tonnes.

China (41.2 %) was the most important origin of EU-27 imports of prepared or preserved vegetables in 2010, well ahead of Turkey (16.9 %), India (7.2 %) and Peru (6.4 %).

Figure 4.12: Quantity of extra-EU imports, prepared or preserved vegetables, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.9: Quantity of extra-EU imports, prepared or preserved vegetables, EU

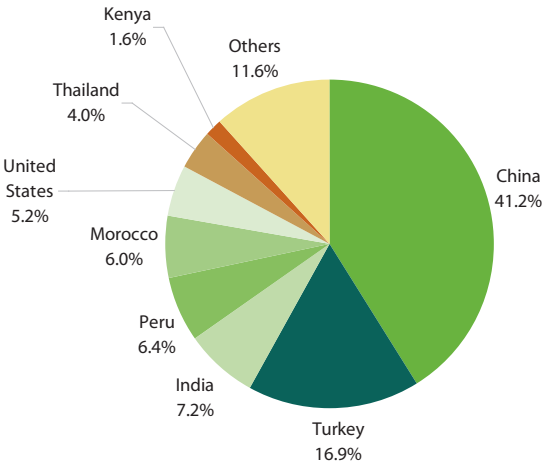
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Vegetables, prepared or preserved (SITC-056)	820	1 118	1 020	1 281	1 323	1 244	1 218
Dried vegetables	77	101	101	120	127	107	117
Vegetables preserved by vinegar	155	271	278	283	294	289	231
Tomatoes, otherwise preserved	91	209	120	240	285	303	332
Mushrooms & truffles, otherwise preserved	60	51	49	56	47	43	44
Other vegetables, otherwise preserved	315	384	362	404	533	468	459

Source: Eurostat (Comext)

Figure 4.13: Origin of extra-EU imports, prepared or preserved vegetables, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

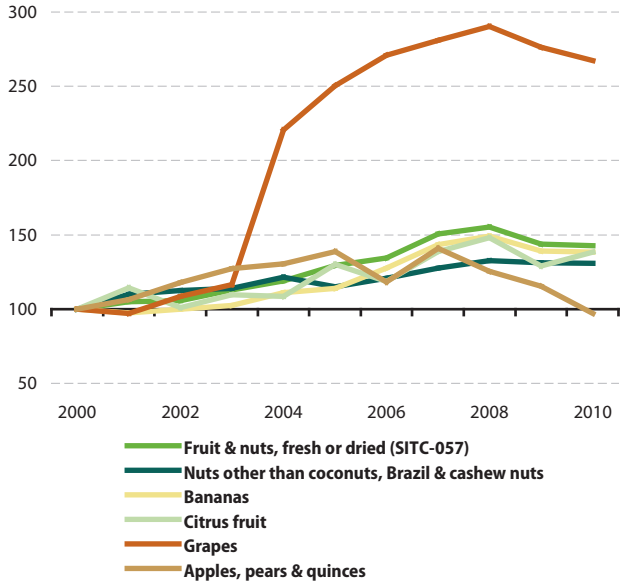
The following codes were used when extracting external trade data:

Vegetables, prepared or preserved – SITC 056
Dried vegetables – CN 0712
Vegetables preserved by vinegar – CN 2001
Tomatoes, otherwise preserved – CN 2002
Mushrooms & truffles, otherwise preserved – CN 2003
Other vegetables, otherwise preserved – CN 2005

There was a general upward trend in the quantity of fresh or dried fruit and nuts imported into the EU-27 between 2000 and 2008. This was followed by a reduction in imports in 2009 and by a smaller fall in 2010. Among the ten groups of products selected within this section on external trade, fresh or dried fruit and nuts recorded the highest quantity of EU-27 imports in 2010 (ahead of cereals), at 12.0 million tonnes. The EU-27 recorded a trade deficit of 8.7 million tonnes for fresh or dried fruit and nuts in 2010, of which more than half (4.6 million tonnes) was attributed to bananas.

Much of the fruit that is imported into the EU – for example, bananas or pineapples – is grown in tropical conditions. As such, it is perhaps not surprising to find that several Central and South American countries featured among the most important EU-27 trade partners for fresh or dried fruit and nuts in 2010, with Costa Rica (13.3 % of total imports), Ecuador (11.0 %) and Colombia (10.1 %) occupying the first three places in the ranking. A relatively high proportion of orange imports into the EU-27 are from South Africa.

Figure 4.14: Quantity of extra-EU imports, fruit and nuts, fresh or dried, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.10: Quantity of extra-EU imports, fruit and nuts, fresh or dried, EU

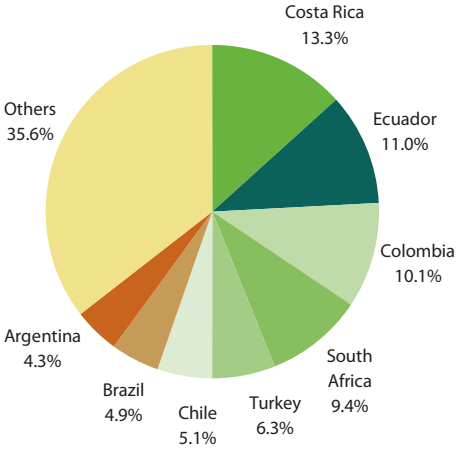
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Fruit & nuts, fresh or dried (SITC-057)	8 383	10 846	11 274	12 628	13 007	12 043	11 964
Nuts other than coconuts, Brazil & cashew nuts	380	437	458	484	503	498	496
Bananas	3 327	3 787	4 247	4 768	4 962	4 625	4 599
Citrus fruit	1 585	2 060	1 882	2 201	2 346	2 046	2 195
Grapes	341	854	924	958	990	943	912
Apples, pears & quinces	937	1 301	1 106	1 319	1 175	1 081	909

Source: Eurostat (Comext)

Figure 4.15: Origin of extra-EU imports, fruit and nuts, fresh or dried, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

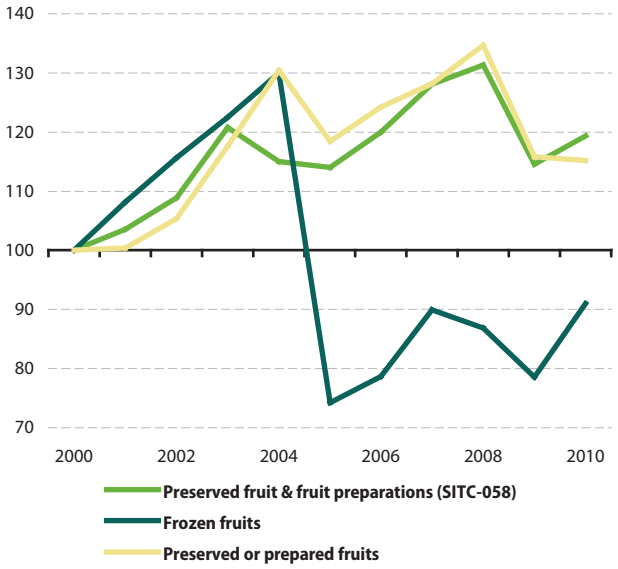
The following codes were used when extracting external trade data:

Fruit & nuts, fresh or dried – SITC 057
Nuts other than coconuts, Brazil & cashew nuts – CN 0802
Bananas – CN 0803
Citrus fruit – CN 0805
Grapes – CN 0806
Apples, pears & quinces – CN 0808

Preserved fruit and fruit preparations also recorded a trade deficit throughout the last decade, although at nowhere near the levels recorded for fresh or dried fruit and nuts. EU-27 imports of preserved fruit and fruit preparations grew at a rapid pace from 2000 to 2003 and again from 2005 to 2008. However, with the onset of the financial and economic crisis, imports fell in 2009, before slightly increasing in 2010, when they totalled 1.5 million tonnes. Many of these products contain exotic fruits and are often imported in a semi-processed form (for example, as fruit concentrate) to be used by EU food manufacturers when making products like fruit juice drinks, jams, or ice creams.

The EU's main trade partners for preserved fruit and fruit preparations were widely spread across the globe, although several Asian countries accounted for a significant share of imports. China continued to account for a growing share of the EU-27's imports (16.7 % in 2010), ahead of Thailand (12.8 %), while India and Indonesia also featured among the top ten countries from which the EU-27 imported preserved fruit and fruit preparations.

Figure 4.16: Quantity of extra-EU imports, preserved fruit and fruit preparations, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.11: Quantity of extra-EU imports, preserved fruit and fruit preparations, EU

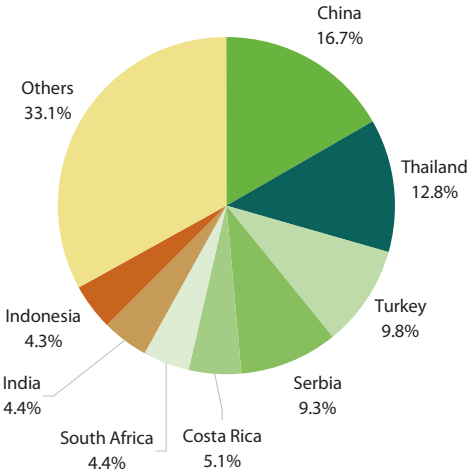
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Preserved fruit & fruit preparations (SITC-058)	1 290	1 471	1 548	1 653	1 694	1 478	1 540
Frozen fruits	316	234	248	284	274	248	287
Preserved or prepared fruits	787	932	977	1 008	1 060	911	906

Source: Eurostat (Comext)

Figure 4.17: Origin of extra-EU imports, preserved fruit and fruit preparations, EU-27, 2010

(% of total)



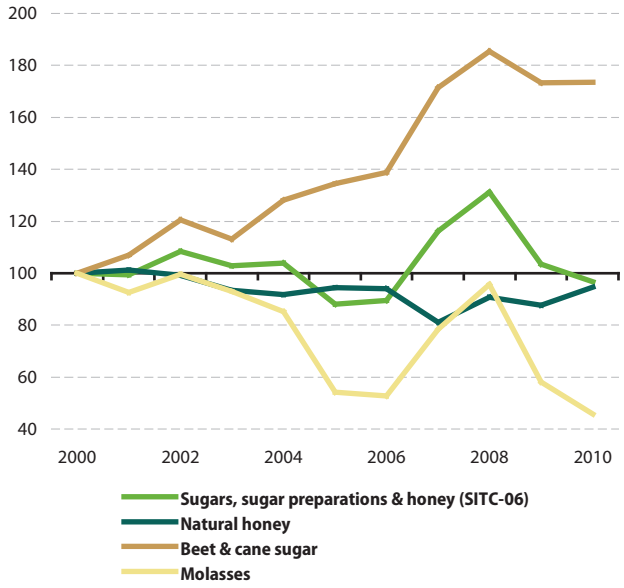
Source: Eurostat (Comext)

The following codes were used when extracting external trade data:
Preserved fruit & fruit preparations – SITC 058
Frozen fruits – CN 0811
Preserved or prepared fruits – CN 2008

The quantity of EU-27 sugar (and sugar preparations and honey) imports fluctuated within a relatively narrow range between 2000 and 2007. Imports peaked in 2008 at 6.5 million tonnes, before falling by 21.0 % in 2009 and a further 6.6 % the year after. Almost two thirds (64.7 %) of the EU-27's imports of sugar in 2010 were in the form of sugar cane and beet. The quantity of cane and beet imports generally followed an upward trend during the last decade, despite falls in 2003 and 2009. The majority of the remaining EU-27 sugar imports (27.4 % in 2010) were in the form of molasses. Imports of molasses fell sharply in 2005, but had recovered by 2008 to the same level as in 2000 (2.8 million tonnes), only to fall even more abruptly in 2009 and 2010 (to 1.3 million tonnes).

Brazil was the most important origin of EU-27 sugar imports in 2010, accounting for around one quarter (24.0 %) of the total. The output of sugar in Brazil has grown at a rapid pace during the last three decades, in part due to investment in the production of ethanol, which uses sugar cane as a feedstock. The remainder of the EU's sugar imports were spread across a broad range of countries – often from the developing world.

Figure 4.18: Quantity of extra-EU imports, sugars, sugar preparations and honey, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.12: Quantity of extra-EU imports, sugars, sugar preparations and honey, EU

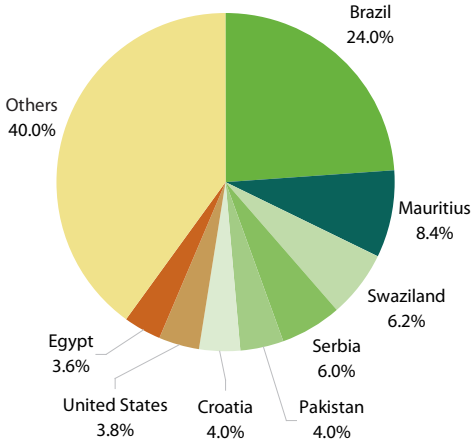
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Sugars, sugar prep. & honey (SITC-06)	4 952	4 359	4 428	5 758	6 495	5 129	4 791
Natural honey	157	148	147	127	142	137	148
Beet & cane sugar	1 785	2 400	2 478	3 062	3 310	3 094	3 099
Molasses	2 874	1 558	1 516	2 255	2 752	1 671	1 315

Source: Eurostat (Comext)

Figure 4.19: Origin of extra-EU imports, sugars, sugar preparations and honey, EU-27, 2010

(% of total)



Source: Eurostat (Comext)

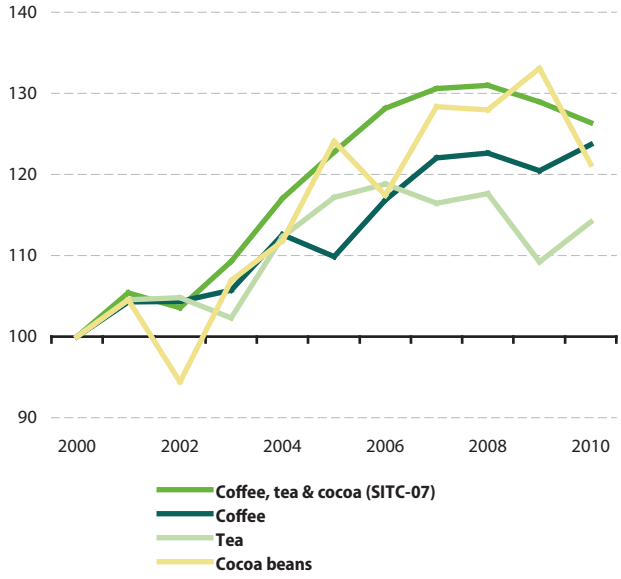
The following codes were used when extracting external trade data:

Sugars, sugar preparations & honey – SITC 06
Natural honey – CN 0409
Beet & cane sugar – CN 1701
Molasses – CN 1703

The EU-27 was unsurprisingly a net importer of coffee, tea and cocoa, with a trade deficit of 4.0 million tonnes in 2010. Given the relatively high unit price of coffee, tea and cocoa, this equated to a deficit of EUR 8 105 million. Coffee accounted for approximately half of the EU's imports (52.7 % in 2010) in quantity terms, while the share of cocoa beans (much of which is used by EU food manufacturers to make chocolate) was around one quarter (26.0 %).

Brazil was the most important origin of coffee, tea and cocoa imports into the EU-27 in 2010, accounting for 17.6 % of the total. The Ivory Coast accounted for 13.3 % of the EU-27's imports in 2010, a large part of which was cocoa – as the Ivory Coast was the world's leading cocoa producer. In January 2011 the EU blocked trade relations with the Ivory Coast in response to the political and security situation. Neighbouring Ghana is the second largest world producer of cocoa and accounted for 7.3 % of the EU-27's imports of coffee, tea and cocoa in 2010.

Figure 4.20: Quantity of extra-EU imports, coffee, tea and cocoa, EU
(2000=100)



Source: Eurostat (Comext)

Table 4.13: Quantity of extra-EU imports, coffee, tea and cocoa, EU

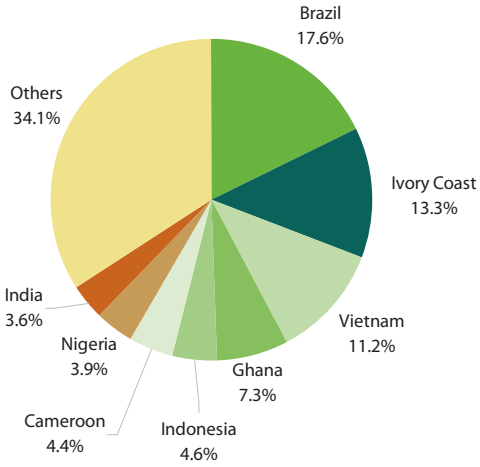
(1 000 tonnes)

	2000	2005	2006	2007	2008	2009	2010
Coffee, tea & cocoa (SITC-07)	4 192	5 147	5 373	5 473	5 489	5 404	5 298
Coffee	2 256	2 478	2 636	2 752	2 766	2 718	2 790
Tea	231	270	274	269	271	252	263
Cocoa beans	1 136	1 409	1 334	1 458	1 453	1 512	1 377

Source: Eurostat (Comext)

Figure 4.21: Origin of extra-EU imports, coffee, tea and cocoa, EU-27, 2010

(% of total)

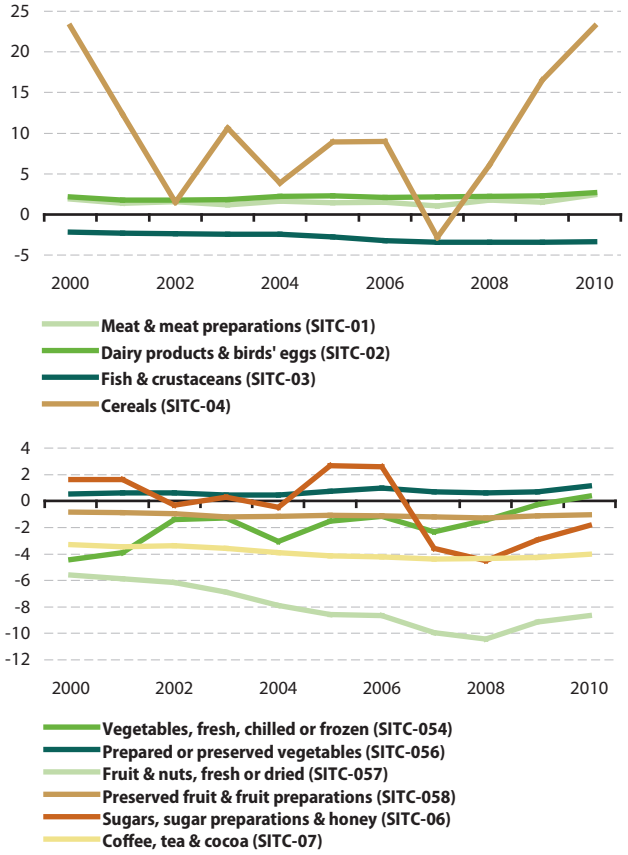


Source: Eurostat (Comext)

The following codes were used when extracting external trade data:
Coffee, tea & cocoa – SITC 07
Coffee – CN 0901
Tea – CN 0902
Cocoa beans – CN 1801

As one of the world's largest food and beverage exporters and importers, the EU sets high safety standards – among these, the identification of the origin of feed and food ingredients. A European Parliament and Council Regulation (EC) 178/2002 contains provisions for traceability – to follow food, feed, and ingredients through all stages of production, processing and distribution; it has been applicable since the start of 2005. Traceability facilitates the protection of consumers and aids with the withdrawal of foods when necessary as well as the provision of accurate information concerning implicated products.

Figure 4.22: Extra-EU trade balance in quantity, food and beverage products, EU
(million tonnes)



Source: Eurostat (Comext)

Table 4.14: Quantity of extra-EU trade, EU-27, 2010

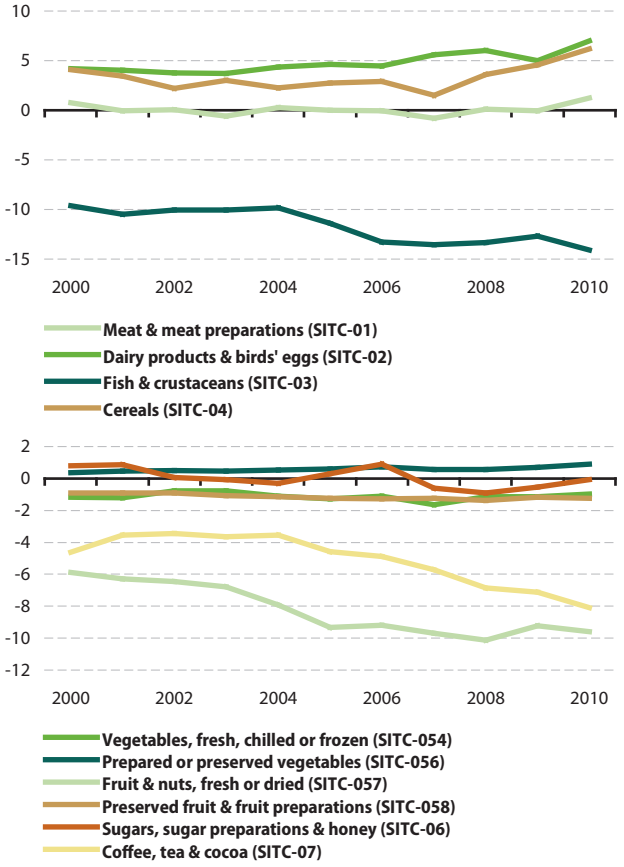
(1 000 tonnes)

	Imports	Exports	Net trade
Meat & meat preparations (SITC-01)	1 413	3 821	2 407
Bovine meat	203	212	8
Sheep or goat meat	196	12	-184
Swine meat	19	1 260	1 242
Poulty meat & edible offal	165	1 124	959
Dairy products & birds' eggs (SITC-02)	240	2 949	2 709
Milk & cream	15	1 119	1 104
Butter & similar fats and oils (dairy spreads)	40	156	116
Cheese & curd	82	676	593
Fish & crustaceans (SITC-03)	4 996	1 639	-3 357
Fish, fresh or chilled	807	94	-713
Fish fillets & other fish meat	1 390	51	-1 339
Cereals (SITC-04)	10 437	33 629	23 192
Wheat & meslin	4 300	22 217	17 917
Barley	51	3 798	3 747
Maize & corn	3 845	1 700	-2 146
Vegetables, fresh, chilled or frozen (SITC-054)	3 837	4 216	379
Potatoes	403	832	428
Tomatoes	497	158	-338
Prepared or preserved vegetables (SITC-056)	1 218	2 342	1 124
Dried vegetables	117	23	-94
Fruit & nuts, fresh or dried (SITC-057)	11 964	3 307	-8 657
Citrus fruit	2 195	661	-1 534
Bananas	4 599	8	-4 591
Preserved fruit & fruit preparations (SITC-058)	1 540	483	-1 057
Sugars, sugar preparations & honey (SITC-06)	4 791	2 948	-1 843
Beet & cane sugar	3 099	2 171	-928
Molasses	1 315	55	-1 260
Coffee, tea & cocoa (SITC-07)	5 298	1 279	-4 018
Coffee	2 790	186	-2 604
Cocoa beans	1 377	5	-1 372
Tea	263	32	-231

Source: Eurostat (Comext)

While the majority of the information presented in this section has focused on the quantity of food and beverage imports, this section closes with some information in relation to the value of the EU-27's external trade. The EU-27 ran considerable trade deficits for fish and crustaceans, fresh or dried fruits and nuts, coffee, tea and cocoa in 2010. In contrast, the EU was a net exporter (in value terms) of dairy products and eggs, cereals, meat, and prepared or preserved vegetables.

Figure 4.23: Extra-EU trade balance in value, food and beverage products, EU
(EUR 1 000 million)



Source: Eurostat (Comext)

Table 4.15: Value of extra-EU trade, EU-27, 2010
(EUR million)

	Imports	Exports	Net trade
Meat & meat preparations (SITC-01)	5 007	6 243	1 236
Bovine meat	1 306	617	-689
Sheep or goat meat	998	48	-949
Swine meat	56	2 614	2 558
Poulty meat & edible offal	311	1 180	869
Dairy products & birds' eggs (SITC-02)	666	7 680	7 014
Milk & cream	23	2 489	2 467
Butter & similar fats and oils (dairy spreads)	104	572	468
Cheese & curd	409	2 981	2 572
Fish & crustaceans (SITC-03)	17 102	2 997	-14 105
Fish, fresh or chilled	3 060	434	-2 626
Fish fillets & other fish meat	4 322	320	-4 002
Cereals (SITC-04)	3 363	9 525	6 162
Wheat & meslin	933	3 799	2 867
Barley	7	651	644
Maize & corn	774	404	-369
Vegetables, fresh, chilled or frozen (SITC-054)	3 427	2 467	-960
Potatoes	149	204	55
Tomatoes	432	215	-217
Prepared or preserved vegetables (SITC-056)	1 422	2 332	911
Dried vegetables	298	85	-213
Fruit & nuts, fresh or dried (SITC-057)	12 285	2 683	-9 601
Citrus fruit	1 519	473	-1 046
Bananas	2 792	9	-2 782
Preserved fruit & fruit preparations (SITC-058)	1 977	724	-1 254
Sugars, sugar preparations & honey (SITC-06)	2 170	2 101	-69
Beet & cane sugar	1 280	1 011	-269
Molasses	164	6	-158
Coffee, tea & cocoa (SITC-07)	13 579	5 474	-8 105
Coffee	6 518	801	-5 717
Cocoa beans	3 427	14	-3 413
Tea	617	256	-361

Source: Eurostat (Comext)

Retailing and consumer services

5

Context

The penultimate step in the food chain from farm to fork takes place when retailers sell food and beverages to consumers in order to prepare meals at home. Alternatively, meals and drinks may be provided outside of the home – an activity that has increased greatly in many parts of the world, including much of the EU: food and beverage consumer services is a collective term covering restaurants, take-away or fast-food outlets, coffee shops and bars, as well as workplace, hospital or school canteens, event catering services, and food service contractors working for transportation enterprises (such as airlines).

One of the main drivers with respect to the development of food and beverage retailing and consumer services is convenience. Traditionally, customers shopped on a more or less daily basis in local, specialised food and beverage shops. Over time, and notably with the growth in personal car use, consumers adopted a 'one-stop' solution provided by retail outlets, often out-of-town, offering thousands of products, year-round, under the same roof with easily accessible free parking. As average store sizes grew, supermarkets diversified into other areas (clothes, electrical goods, pharmaceuticals, financial services, automotive fuel) – giving rise to superstores. While the frequency with which customers tend to shop for food and beverages has diminished, the opposite is true for food and beverage consumer services. The pace of modern life and the reduction in household sizes (particularly the growth of one person households) may, in part, explain these trends, as customers increasingly eat-out or order food from take-away outlets.

In contrast to farmers or food and beverage manufacturing enterprises that tend to deal in a limited number of product lines, large non-specialised retailers and many food service establishments deal on a daily basis with a wide range of different products and ingredients. Under these circumstances, particular care needs to be taken to avoid cross-contamination among raw materials or between raw food and finished products. Food hygiene issues also exist for meals which are prepared in advance (canteens) or meals which are prepared far from their point of consumption (food for airlines).

In order to produce food safely, enterprises need to ensure that their premises are kept clean, and that foods are stored and handled hygienically. Regulation (EC) 852/2004 of the European Parliament and Council on the hygiene of foodstuffs provides the legislative background to these food safety issues. It covers, among other, the cleanliness of food premises, the personal hygiene of those in contact with food, as well as rules on various aspects of food preparation, including heat treatment, wrapping and packaging.

Structural overview

Official statistics distinguish between specialised food, beverages and tobacco retailers (for example, butchers or bakers) and non-specialised retailers (such as independent grocery stores, supermarkets, discount stores or superstores); alternatively, consumers may also purchase food and beverages from markets and stalls.

There were 493 929 specialised food, beverages and tobacco retailers in the EU-27 in 2008, some 74 270 higher than the number of non-specialised retailers (see Table 5.1). European food and beverage retailing has in recent decades been characterised by consolidation, with the emergence of a limited number of national and international players. Non-specialised retailers accounted for 86.1 % of all food, beverages and tobacco retail sales in 2008.

Food and beverage consumer services generated EUR 322 113 million of turnover in the EU-27 in 2008, which was equivalent to slightly less than one third (30.1 %) of the total for food, beverages and tobacco retailing. Restaurants and mobile food services accounted for well over half (57.8 %) of the sales within food and beverage consumer services, followed by beverage serving services (28.4 %).

Table 5.1: Food, beverages and tobacco retailing and services, main indicators, EU-27, 2008

	Enterprises (units)	Persons employed (1 000)	Turnover (EUR million)	Value added (EUR million)
Non-specialised retail.: food, beverages & tobacco	419 659	*5 784*	920 833	121 663
Specialised retailing: food, beverages & tobacco	493 929	1 417	*136 000*	*27 000*
Fruit & vegetables	76 945	168	15 088	2 632
Meat & meat products	124 624	358	32 954	6 891
Bread, cakes, flour & sugar confectionery	61 781	269	13 342	4 563
Other specialised retailing (1)	230 579	*622*	74 616	12 915
Food, bev. & tobacco retailing from markets & stalls	146 655	169	11 733	2 474
Food & beverage services	1 448 381	7 317	322 113	127 380
Restaurants & mobile food services	764 880	4 233	186 025	73 954
Event catering	34 752	395	17 133	7 556
Other food services	22 666	565	27 408	12 244
Beverage serving	626 085	2 124	91 547	33 626

(1) NACE Classes 47.23 and 47.25 to 47.29.

Source: Eurostat (Structural business statistics, online data codes: sbs_na_dt_r2 and sbs_na_1a_se_r2)

There was a considerable difference in the structure of the non-specialised food, beverages and tobacco retailing sector between northern Member States and those from southern or eastern Europe (where independent grocery stores remained prevalent). Poland recorded the highest number of enterprises (68 070), while Romania and Italy also had upwards of 50 000 enterprises in this sector in 2008 – see Table 5.2. The largest workforce for the non-specialised food, beverages and tobacco retailing sector was registered in the United Kingdom (1.1 million), while sales peaked in France at EUR 183 201 million.

Table 5.2: Non-specialised retailing: food, beverages and tobacco, main indicators, 2008

	Enterprises	Persons employed	Turnover	Value added
	(units)	(1 000)	(EUR million)	
EU-27	419 659	*5 783.9*	*920 833*	*121 663*
BE	6 990	92.0	29 445	4 137
BG	21 093	80.4	2 330	244
CZ	:	:	:	:
DK	3 064	:	:	:
DE	23 632	773.6	150 933	19 920
EE	727	19.3	2 041	226
IE	3 976	85.4	14 920	1 920
EL	:	:	:	:
ES	37 402	417.4	72 138	11 363
FR	21 417	:	183 201	21 945
IT	56 272	451.7	100 274	11 202
CY	2 424	7.5	1 475	192
LV	1 906	39.8	2 602	312
LT	3 127	59.8	3 851	644
LU	198	7.5	2 410	336
HU	16 334	121.1	10 773	1 141
MT	:	:	:	:
NL	2 890	235.7	29 163	4 438
AT	3 435	92.2	16 287	2 722
PL	68 070	431.6	30 437	4 200
PT	19 399	111.7	15 343	1 917
RO	*60 222*	*238.5*	*11 078*	*1 256*
SI	759	26.2	4 028	619
SK	237	27.2	2 477	319
FI	2 925	53.4	14 171	1 958
SE	5 461	81.9	19 201	2 705
UK	29 555	1 102.4	162 011	22 729
NO	4 511	70.4	17 146	2 308
HR	3 797	57.4	5 625	827

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

The divergence between northern and southern Europe was even more apparent for specialised food, beverages and tobacco retailing, as Spain (22.9 %), Italy (21.5 %) and Portugal (5.7 %) together accounted for more than half of the total number of enterprises within the EU-27 in 2008 – see Table 5.3.

Table 5.3: Specialised retailing: food, beverages and tobacco, main indicators, 2008

	Enterprises	Local units	Persons employed	Turnover	Value added
	(units)		(1 000)	(EUR million)	
EU-27	493 929	:	1 416.9	*136 000*	*27 000*
BE	10 913	:	33.2	4 478	789
BG	8 321	8 464	18.9	367	42
CZ	*6 239*	*6 834*	*19.5*	*1 232*	*145*
DK	2 532	2 831	19.7	1 236	310
DE	31 942	:	199.1	15 808	3 517
EE	130	190	1.0	76	7
IE	2 562	3 084	11.9	1 486	298
EL	:		:	:	:
ES	112 917	129 402	254.7	25 048	4 613
FR	56 903	:	:	18 694	4 238
IT	106 349	119 050	205.6	17 308	3 786
CY	946		2.4	345	56
LV	302	:	2.0	109	16
LT	158	272	1.5	85	10
LU	263		:	:	:
HU	7 190	7 463	19.1	946	106
MT	:		:	:	:
NL	8 907	10 874	58.9	5 297	1 124
AT	5 290	7 358	24.0	3 360	612
PL	22 871	:	107.3	7 928	1 080
PT	27 993	29 034	45.3	3 030	352
RO	*8 468*	:	*31.9*	*1 341*	*125*
SI	503	522	1.5	185	23
SK	235	451	3.7	369	19
FI	1 136	2 115	5.3	1 494	249
SE	5 923	6 468	16.9	3 806	509
UK	28 493	36 957	173.4	14 710	3 804
NO	1 005	1 745	6.9	2 102	277
HR	1 265	:	7.5	565	68

Source: Eurostat (Structural business statistics, online data codes: sbs_na_dt_r2 and sbs_r_nuts06_r2)

There were 146 655 enterprises selling food, beverages and tobacco from stalls and markets in the EU-27; almost one third of these were located in France – see Table 5.4. On average, each of these generated just over EUR 80 000 of sales in 2008: the average turnover recorded by non-specialised food, beverages and tobacco enterprises was about 30 times higher. Overall, the workforce of non-specialised food, beverages and tobacco retailing was almost 35 times as large as the 168 900 persons employed on food and beverage stalls and markets.

There were nearly 1.5 million food and beverages services enterprises operating in the EU-27 in 2008 (see Table 5.5); a relatively high

Table 5.4: Food, beverages and tobacco retailing from stalls and markets, main indicators, 2008

	Enterprises	Persons employed	Turnover	Value added
	(units)	(1 000)	(EUR million)	
EU-27	146 655	168.9	11 733	2 474
BE	1 875	3.0	234	51
BG	2 093	2.7	16	3
CZ	:	:	:	:
DK	49	0.2	13	3
DE	3 751	11.7	649	138
EE	85	0.5	26	3
IE	:	:	:	:
EL	:	:	:	:
ES	:	:	:	:
FR	48 337	:	3 303	848
IT	29 539	44.9	3 196	553
CY	54	0.1	2	1
LV	1 153	2.9	91	12
LT	8 841	10.1	89	10
LU	22	0.0	4	1
HU	1 101	1.5	22	3
MT	:	:	:	:
NL	2 295	14.8	:	:
AT	262	0.7	47	8
PL	11 294	15.7	442	61
PT	3 741	3.9	100	12
RO	*5 537*	*10.2*	*200*	*23*
SI	48	0.1	4	1
SK	3	0.0	0	0
FI	187	0.2	15	4
SE	535	0.4	40	8
UK	894	1.7	237	55
NO	85	0.1	12	3
HR	7	:	:	:

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

proportion of these were located in Spain and Italy (18.4 % and 17.1 %). It has become relatively common to find a number of food and beverage chains (coffee shops, brewery chains, franchises for fast-food outlets or restaurants) located in city centres or shopping centres across Europe. This is particularly true in northern Europe, as demonstrated by higher ratios of the number of local units to the number of enterprises in Latvia, Finland, Lithuania or the United Kingdom. The United Kingdom was also the largest employer within the food and beverage consumer services sector (1.58 million persons or 21.6 % of the EU-27 total), while Spain, Italy and Germany each reported shares of between 13 and 14 % of the workforce (France, not available).

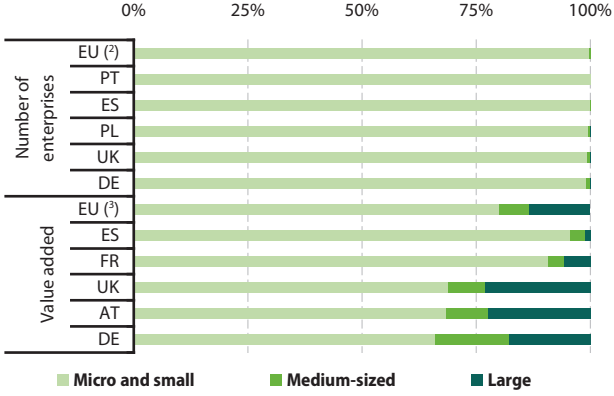
Table 5.5: Food and beverages services, main indicators, 2008

	Enterprises	Local units	Persons employed	Turnover	Value added
	(units)		(1 000)	(EUR million)	
EU-27	1 448 381	:	7 316.5	322 113	127 380
BE	42 608	:	146.3	8 859	3 205
BG	19 180	19 476	92.0	885	240
CZ	*47 955*	*49 005*	*126.2*	*4 151*	*1 045*
DK	11 953	13 674	107.7	4 363	1 827
DE	131 690	:	955.5	32 097	14 678
EE	1 270	1 442	14.3	332	110
IE	12 703	:	107.8	6 610	2 346
EL	:	:	:	:	:
ES	266 710	289 404	1 002.1	43 760	17 638
FR	193 190	210 434	:	51 915	21 717
IT	247 429	268 470	972.6	47 638	16 690
CY	6 014	:	24.8	1 064	499
LV	2 290	3 854	25.7	443	163
LT	2 783	3 532	34.9	466	147
LU	2 433	:	12.9	860	382
HU	29 899	31 195	106.6	2 427	568
MT	:	:	:	:	:
NL	30 631	33 831	304.2	12 505	4 991
AT	30 129	36 045	153.5	7 425	3 305
PL	48 911	50 535	203.0	4 604	1 342
PT	79 388	84 492	232.3	7 353	2 175
RO	*19 356*	:	*98.0*	*1 839*	*474*
SI	6 840	7 005	23.5	1 028	331
SK	1 830	2 072	15.9	422	151
FI	9 683	15 381	50.6	4 003	1 469
SE	22 208	23 238	106.3	6 765	2 564
UK	120 788	156 378	1 581.1	63 498	26 800
NO	7 715	9 004	60.9	4 073	1 705
HR	16 150	:	60.3	1 075	402

Source: Eurostat (Structural business statistics, online data codes: sbs_na_1a_se_r2 and sbs_r_nuts06_r2)

Figure 5.1: Size class analysis of specialised retailing of food, beverages and tobacco, five largest Member States, 2008 (1)

(% of total)

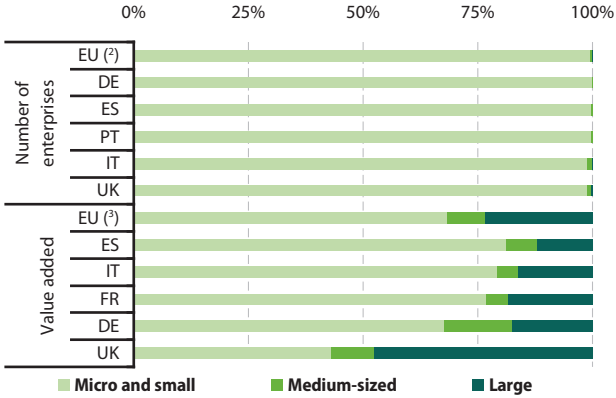


(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; Belgium, the Czech Republic, Greece, France, Italy, Cyprus, Hungary, Malta and Slovakia, incomplete or not available.
(3) Average based on available data; Belgium, the Czech Republic, Estonia, Greece, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Poland, Romania, Slovenia, Slovakia, Finland and Sweden, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_dt_r2)

Figure 5.2: Size class analysis of food and beverages services, five largest Member States, 2008 (1)

(% of total)



(1) Micro and small enterprises: 0-49 persons employed; medium-sized enterprises: 50-249 persons employed; large enterprises: 250 or more persons employed.
(2) Average based on available data; Ireland, Greece, France, Malta, Romania and Slovakia, incomplete or not available.
(3) Average based on available data; Ireland, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Romania, Slovenia and Slovakia, incomplete or not available.

Source: Eurostat (Structural business statistics, online data code: sbs_sc_1b_se_r2)

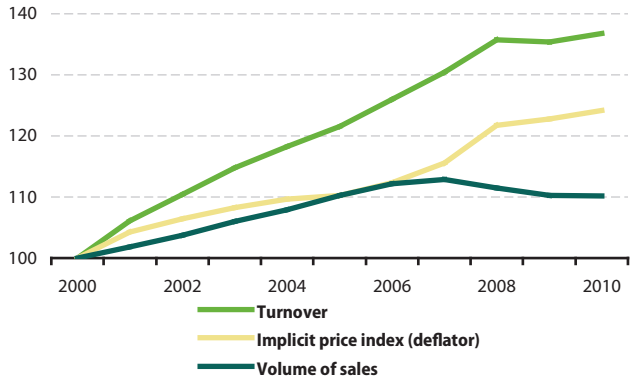
There were a high number of micro and small enterprises involved in specialised food retailing and food services (see Figure 5.1); a size class breakdown for non-specialised retailing of food, beverages and tobacco is not available. However, statistics pertaining to retail sales in non-specialised stores (NACE Rev. 2 Group 47.1) – hence, also including department stores – show that large enterprises (employing 250 or more persons) accounted for 0.2 % of the enterprise population, while generating three quarters (75.1 %) of sectoral value added. Although not restricted to food retailers, these figures give an idea of the market power enjoyed by a relatively small number of retailers.

Sales of food and beverages in retailing and consumer services

There was steady and uniform growth in the volume of sales and prices for food, beverages and tobacco retailing within the EU-27 from 2000 to 2006 (see Figure 5.3). Thereafter, global food prices accelerated for a couple of years. The volume of food, beverages and tobacco sales peaked in 2007 and was then constrained by the effects of the financial and economic crisis – such that the EU-27 volume of sales index fell during three consecutive years between 2007 and 2010.

Figure 5.3: Selected indices for food, beverages and tobacco retailing, EU-27

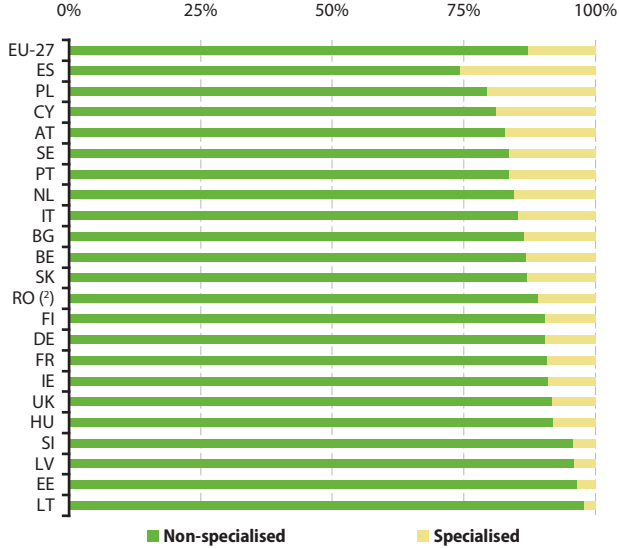
(2000=100)



Source: Eurostat (Short-term business statistics, online data code: sts_trtu_a)

Figure 5.4: Breakdown of turnover for the retail sale of food, beverages and tobacco, 2008 (1)

(% of food, beverages and tobacco retail sales)

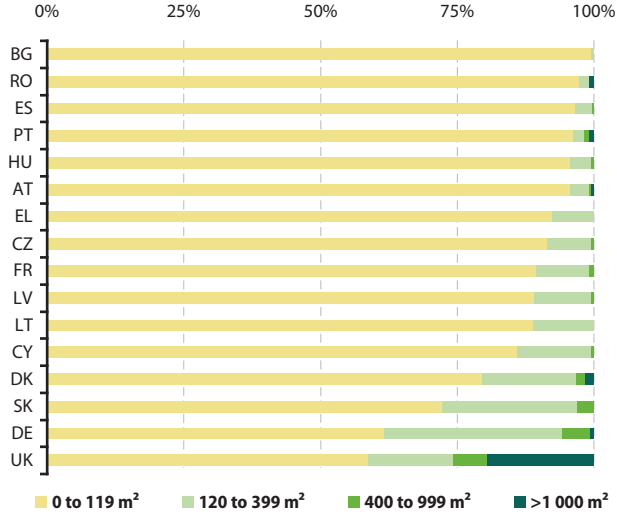


(1) Not available or incomplete for those Member States not shown. (2) Provisional.

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

Figure 5.5: Number of stores by category of sales space, retail sale of food, beverages and tobacco in specialised stores, 2007 (1)

(% of total stores)



(1) NACE Rev. 1.1 Group 52.2; no data available for those Member States that are not shown.

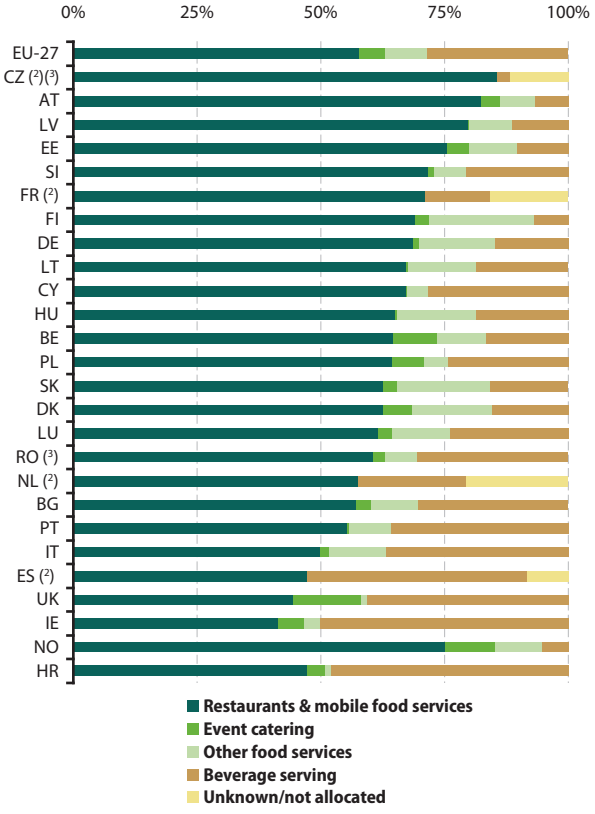
Source: Eurostat (Structural business statistics, online data code: dt_oth_3d52_spa)

Figure 5.4 shows that ten of the Member States reported that non-specialised retailers accounted for upwards of 90 % of all food, beverages and tobacco sales in 2008. It should be noted that non-food sales from non-specialised retailers are included in the statistics presented, as long as food, beverages and tobacco remains the dominant product range.

Restaurants generally accounted for the highest share of turnover within food and beverage services – averaging 57.8 % of the total in the EU-27; Ireland was the only exception to this rule, as beverage serving enterprises recorded higher sales (see Figure 5.6).

Figure 5.6: Turnover of food and beverages services, 2008 (1)

(% of total turnover)



(1) Greece, Malta and Sweden, incomplete or not available.
(2) Event catering and other food services, not available; the values for these two categories are assigned to unknown/not allocated.
(3) Provisional.

Source: Eurostat (Structural business statistics, online data code: sbs_na_1a_se_r2)

Employment in food and beverages consumer services

Table 5.6 shows there was a relatively high number (1.4 million) of unpaid persons active within food and beverages consumer services in the EU-27 in 2008; the highest numbers were recorded in Italy and Spain, typically working in small family-run enterprises. The statistics provided on the number of paid employees are given as a simple headcount, as well as in full-time equivalents.

Table 5.6: Labour market characteristics of the food and beverages services workforce, 2008

(1 000)

	Employed	Unpaid	Employees	Employees (in FTE) (1)
EU-27	7 316.5	1 408.3	5 908.3	:
BE	146.3	47.5	98.8	52.4
BG	92.0	14.4	77.5	72.4
CZ	*126.2*	*39.3*	*86.9*	*82.9*
DK	107.7	12.0	95.7	33.3
DE	955.5	157.6	798.0	494.7
EE	14.3	0.2	14.1	12.9
IE	107.8	13.3	94.5	66.1
EL	:	:	:	:
ES	1 002.1	288.2	713.9	605.7
FR	:	:	544.9	431.5
IT	972.6	398.1	574.4	443.0
CY	24.8	4.8	20.0	18.1
LV	25.7	0.0	25.7	23.0
LT	34.9	1.3	33.6	28.8
LU	12.9	1.5	11.4	:
HU	106.6	17.9	88.7	79.4
MT	:	:	:	:
NL	304.2	41.4	262.8	127.9
AT	153.5	30.7	122.8	88.6
PL	203.0	68.0	135.1	:
PT	232.3	15.9	216.4	:
RO	*98.0*	*3.6*	*94.4*	*93.6*
SI	23.5	4.6	18.9	:
SK	15.9	0.2	15.6	5.3
FI	50.6	6.6	44.0	37.2
SE	106.3	0.0	86.5	69.8
UK	1 581.1	104.9	1 476.2	1 054.1
NO	60.9	3.4	57.5	31.8
HR	60.3	14.0	46.3	37.6

(1) FTE: full-time equivalents.

Source: Eurostat (Structural business statistics, online data code: sbs_na_dt_r2)

Consumption

6

Context

Food and beverages are amongst the most important individual 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.

In 2002 the so-called food law – Regulation (EC) No 178/2002 of the European Parliament and of the Council laying down the general principles and requirements of food law, establishing the European Food Safety Authority, and laying down procedures in matters of food safety – was adopted. This aims to ensure 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. This integrated approach is now considered a general principle for EU food safety policy. The Regulation establishes the principles of risk analysis in relation to food and establishes the structures and mechanisms for scientific and technical evaluations which are undertaken by the European Food Safety Authority (EFSA).

Consumers are faced by a range of issues when purchasing food, for example price, quantity, quality and dietary issues, as well as marketing related factors such as product brands, campaigns and in-store product prominence. 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 provide information on 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).

The EU works to safeguard food quality in many ways, with policies on biological and chemical food safety and hygiene, labelling and nutritional information, animal and plant health and welfare regulations. 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.

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 Chapter 3.

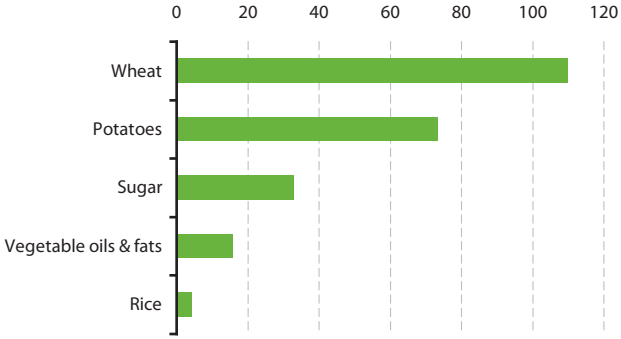
This chapter focuses on consumers and consumption, looking initially at the quantity of food and beverages available for human consumption, as well as consumer price levels, the development of consumer prices and expenditures. This is followed by a brief presentation of indicators related to waste and health issues, while the chapter concludes with a presentation of consumer opinions on food and food production.

Human consumption

Figures 6.1 to 6.8 and Tables 6.1 to 6.4 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.

Figure 6.1: Gross human apparent consumption per capita (availability for human consumption), EU average, 2009 (1)

(kg)

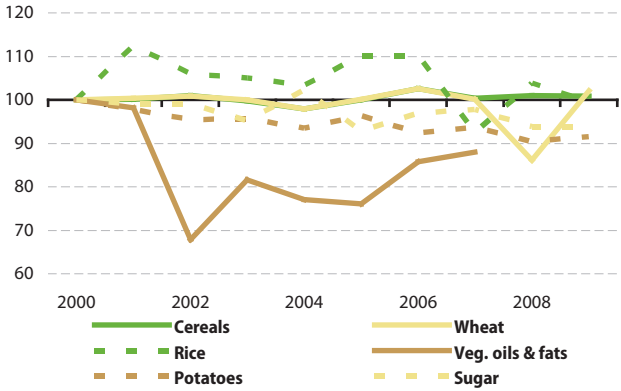


(1) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.2: Gross human apparent consumption per capita (availability for human consumption), EU average (1)

(2000=100)



(1) EU average is based on a consistently available set of countries across the time series shown; the composition varies between products.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_cons, and population statistics, online data code: demo_pjan)

Annual apparent consumption of wheat, a major constituent of bakery products and pasta, averaged over 100 kg per capita in the EU in 2009. Wheat consumption was particularly high in Greece, Malta and Italy. In contrast, the apparent consumption of potatoes was high in Latvia, and above 100 kg per capita in Poland and Greece.

Table 6.1: Gross human apparent consumption per capita (availability for human consumption), 2009 ([1])
(kg)

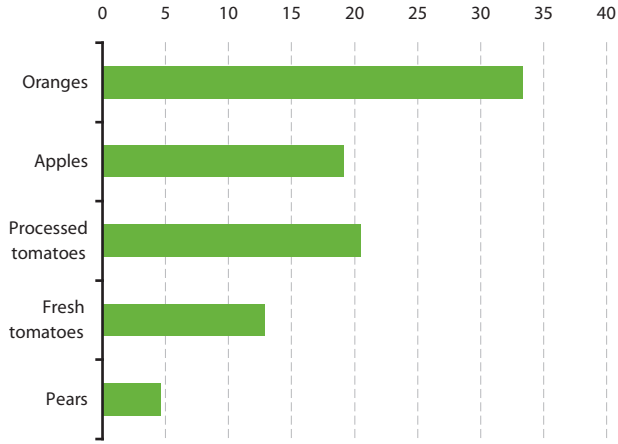
	Wheat	Rice	Vegetable oils & fats	Potatoes	Sugar
EU ([2])	110	4	16	73	33
BE	:	4	:	85	39
BG	:	3	:	37	:
CZ	:	:	:	:	:
DK	:	:	:	:	46
DE	80	3	:	59	:
EE	53	5	7	84	41
IE	77	9	:	97	20
EL	194	:	:	103	24
ES	97	:	15	74	:
FR	106	6	15	51	35
IT	157	:	28	44	:
CY	:	:	:	:	:
LV	88	2	:	178	37
LT	54	2	5	93	31
LU	118	:	4	66	45
HU	131	6	15	67	28
MT	165	7	13	99	44
NL	105	5	18	87	28
AT	81	4	0	56	39
PL	106	3	5	118	33
PT	133	:	21	90	37
RO	:	3	10	89	23
SI	98	4	:	84	:
SK	101	6	:	57	37
FI	:	:	:	78	:
SE	:	7	:	83	46
UK	110	:	:	97	:
HR	:	3	9	48	36
TR	:	:	:	52	24

([1]) 2007 or 2008 data have been used to replace data that were not available for 2009.
([2]) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.3: Gross human apparent consumption per capita (availability for human consumption), EU average, 2009 (1)

(kg)

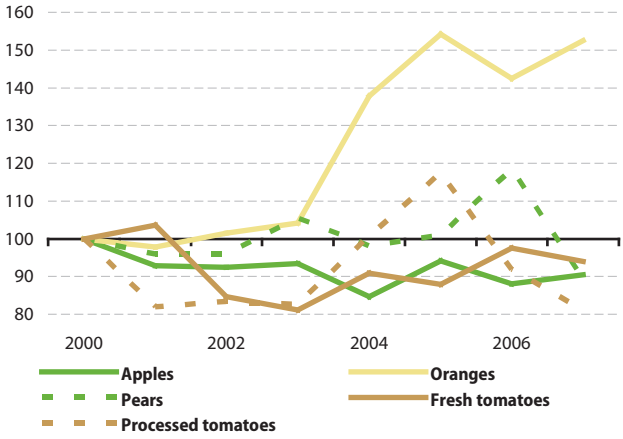


(1) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.4: Gross human apparent consumption per capita (availability for human consumption), EU average (1)

(2000=100)



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

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_cons, and population statistics, online data code: demo_pjan)

Annual apparent consumption of oranges, apples and pears together reached 57 kg per capita on average in the EU, while the consumption of tomatoes (fresh and processed) was 33 kg per capita. The annual apparent consumption of oranges exceeded 100 kg per capita in Ireland, France and Luxembourg. Denmark and the Netherlands had the highest average apparent consumption of apples per capita, while Portugal and Italy reported the highest per capita averages for pears. Southern Member States topped the ranking for tomatoes, with averages exceeding 60 kg per capita in Greece, Italy and Malta.

Table 6.2: Gross human apparent consumption per capita (availability for human consumption), 2009 ([1])

(kg)

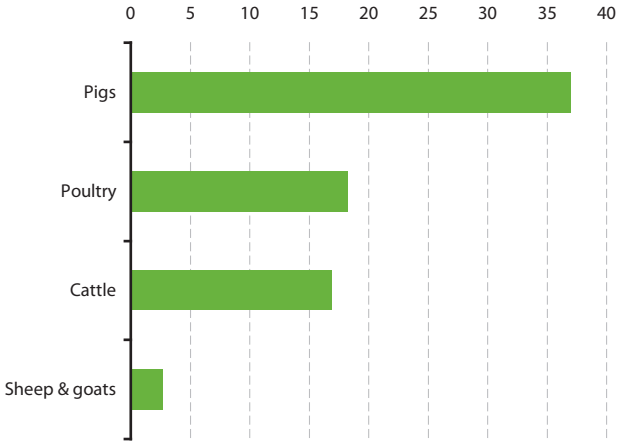
	Apples	Pears	Oranges	Fresh tomatoes	Processed tomatoes
EU ([2])	19	5	33	13	20
BE	26	6	19	8	18
BG	:	:	:	:	:
CZ	:	:	:	:	:
DK	54	8	:	32	:
DE	17	2	6	8	16
EE	16	3	30	12	8
IE	14	8	132	9	13
EL	27	6	67	62	20
ES	19	4	30	15	14
FR	24	4	123	13	18
IT	20	11	19	17	55
CY	:	:	:	:	:
LV	:	:	:	:	:
LT	9	1	10	3	8
LU	20	5	112	6	20
HU	21	3	12	11	9
MT	17	3	22	38	25
NL	46	7	78	3	40
AT	29	7	5	8	17
PL	11	1	14	9	12
PT	26	11	16	:	:
RO	5	2	7	22	12
SI	:	:	:	:	:
SK	13	1	12	15	:
FI	:	:	:	:	:
SE	17	5	24	10	17
UK	12	2	5	8	8
HR	:	:	:	:	9

([1]) 2007 or 2008 data have been used to replace data that were not available for 2009.
([2]) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.5: Gross human apparent consumption per capita (availability for human consumption), EU average, 2009 (1)

(kg)

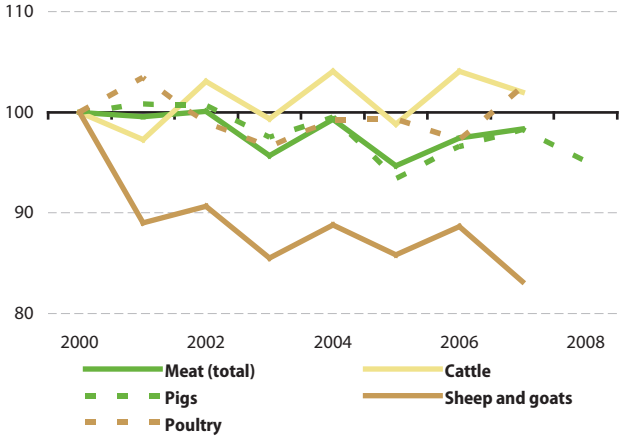


(1) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.6: Gross human apparent consumption per capita (availability for human consumption), EU average (1)

(2000=100)



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

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_cons, and population statistics, online data code: demo_pjan)

The highest annual apparent consumption in the EU of meat products was recorded for pork products, averaging 37 kg per capita in the EU, almost the same as the combined total for meat from poultry, cattle, sheep and goats. Denmark, Cyprus, Austria and Germany reported the highest per capita apparent consumption of pig meat, all recording averages in excess of 50 kg, while Greece, the United Kingdom and Bulgaria recorded per capita averages below 30 kg.

Table 6.3: Gross human apparent consumption per capita (availability for human consumption), 2009 ([1])

(kg)

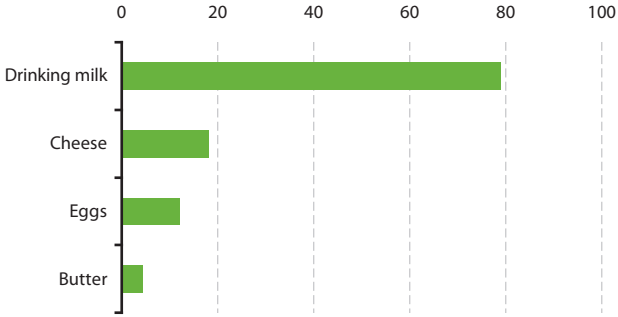
	Cattle	Poultry	Pigs	Sheep & goats
EU ([2])	15	22	37	3
BE	18	:	40	:
BG	5	22	24	2
CZ	:	:	:	:
DK	26	26	81	:
DE	13	18	54	1
EE	14	21	44	1
IE	20	26	33	3
EL	6	30	8	9
ES	:	:	:	:
FR	26	23	34	4
IT	23	19	38	1
CY	9	45	72	12
LV	:	:	:	0
LT	:	:	:	:
LU	30	15	39	2
HU	3	29	44	0
MT	:	:	:	:
NL	19	22	41	1
AT	18	20	57	1
PL	:	:	:	:
PT	19	34	46	3
RO	7	19	33	2
SI	21	27	43	1
SK	4	20	31	0
FI	:	:	:	:
SE	:	:	:	:
UK	18	27	20	6

([1]) 2007 or 2008 data have been used to replace data that were not available for 2009.
([2]) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Average per capita apparent consumption of milk, cheese and butter in the EU was just over 100 kg in 2009, of which around four fifths was accounted for by drinking milk. Apparent consumption of eggs averaged 12 kg per capita in the EU.

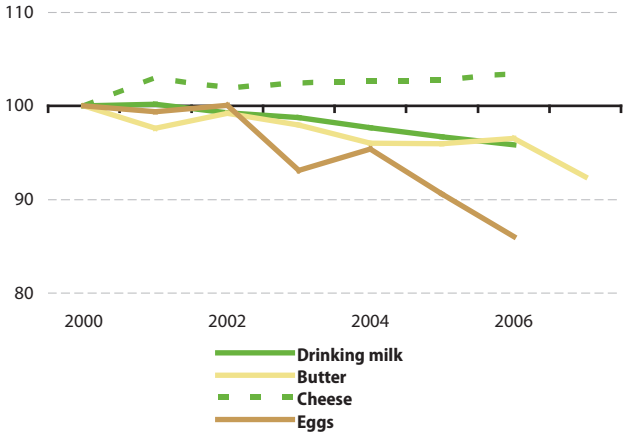
Figure 6.7: Gross human apparent consumption per capita (availability for human consumption), EU average, 2009 (1)
(kg)



(1) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Figure 6.8: Gross human apparent consumption per capita (availability for human consumption), EU average (1)
(2000=100)



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

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_cons, and population statistics, online data code: demo_pjan)

Lithuania and Ireland recorded the highest average apparent consumption of drinking milk, both in excess of 130 kg per capita, while the lowest level of milk consumption (by far) was in Bulgaria. Apparent consumption of cheese was highest in Greece with an average per capita of 31 kg.

Table 6.4: Gross human apparent consumption per capita (availability for human consumption), 2009 (1)

(kg)

	Drinking milk	Butter	Cheese	Eggs
EU (2)	79	4	18	12
BE	62	6	18	10
BG	8	0	8	9
CZ	:	:	:	13
DK	100	2	:	16
DE	63	6	21	13
EE	118	6	18	11
IE	139	3	6	11
EL	68	1	31	10
ES	:	:	:	:
FR	65	8	24	:
IT	:	:	:	:
CY	111	1	19	11
LV	84	3	13	15
LT	144	3	13	12
LU	52	7	18	9
HU	73	1	9	15
MT	76	1	22	16
NL	:	:	:	:
AT	72	5	18	14
PL	75	5	20	11
PT	91	1	10	9
RO	100	1	21	12
SI	:	:	:	10
SK	57	3	8	13
FI	:	:	:	:
SE	:	:	:	:
UK	116	3	10	:
HR	:	2	9	:

(1) 2007 or 2008 data have been used to replace data that were not available for 2009.
(2) Average of available countries using previous reference periods when no data were available for 2009.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_ch_concap, and population statistics, online data code: demo_pjan)

Consumer prices and taxes

A price level index reflects the relative price level differences between different areas, such as between countries. EU price level indices show the index value of 100 for the EU-27 average, so that index values above this indicate where prices are above the EU-27 average, and values below 100 show where prices are below that average.

Table 6.5: Comparative price levels indices, food products, 2009 (EU-27=100)

	Food	Bread & cereals	Meat	Fish	Milk, cheese & eggs	Oils & fats	Fruit, veg. & potatoes
EU-27	100	100	100	100	100	100	100
BE	115	116	121	128	121	124	109
BG	66	51	59	72	91	90	65
CZ	74	69	69	83	81	84	70
DK	134	146	131	121	114	140	134
DE	112	111	127	108	91	97	126
EE	79	78	70	77	86	100	80
IE	127	132	121	113	136	105	143
EL	99	117	95	111	132	120	76
ES	97	111	86	93	104	83	100
FR	112	113	122	110	103	106	118
IT	109	103	112	116	124	116	94
CY	106	116	90	120	137	110	92
LV	83	80	75	77	89	115	85
LT	72	78	63	66	77	93	70
LU	119	124	117	121	119	123	125
HU	78	71	72	93	89	98	75
MT	91	84	75	95	112	110	91
NL	98	99	115	106	92	83	104
AT	118	126	128	115	100	118	122
PL	63	58	56	69	63	80	68
PT	92	106	80	80	111	98	81
RO	65	61	58	72	92	80	58
SI	97	101	92	101	101	122	92
SK	80	78	68	83	91	108	73
FI	118	127	120	103	110	112	128
SE	104	114	108	99	90	104	120
UK	97	84	102	76	95	87	119
IS	105	129	99	80	90	90	117
NO	152	145	162	122	168	155	155
CH	143	138	197	153	121	168	131
ME	78	69	76	79	81	98	83
HR	93	99	87	101	95	102	84
MK	52	49	52	58	60	63	44
TR	76	68	71	80	100	87	63

Source: Eurostat (Purchasing power parities, online data code: prc_ppp_ind)

Price level indices compiled for 2009 show that food products were generally cheaper in the Member States that joined the EU in 2004 or 2007, the only exception being Cyprus. Among the other Member States, price levels were also well below the EU-27 average in Portugal, and to a lesser extent in Spain, the United Kingdom, the Netherlands and Greece. Food price levels were particularly high in Denmark and Ireland.

Table 6.6: Comparative price level indices, food and beverages, 2009

(EU-27=100)

	Food & non-alcoholic beverages	Non-alcoholic beverages	Alcoholic beverages
EU-27	100	100	100
BE	116	117	101
BG	67	79	76
CZ	75	94	88
DK	139	193	135
DE	111	107	91
EE	81	99	106
IE	129	144	167
EL	100	116	105
ES	97	98	84
FR	111	97	95
IT	108	94	112
CY	108	130	118
LV	85	115	117
LT	74	92	98
LU	117	106	94
HU	79	88	84
MT	94	119	98
NL	98	97	99
AT	117	108	95
PL	64	76	89
PT	92	103	86
RO	66	75	70
SI	96	93	101
SK	81	101	97
FI	119	131	170
SE	105	110	138
UK	97	101	117
IS	104	103	168
NO	154	168	234
CH	140	112	113
ME	79	83	95
HR	94	112	110
MK	53	64	70
TR	77	92	158

Source: Eurostat (Purchasing power parities, online data codes: prc_ppp_ind and food_pd_prc1)

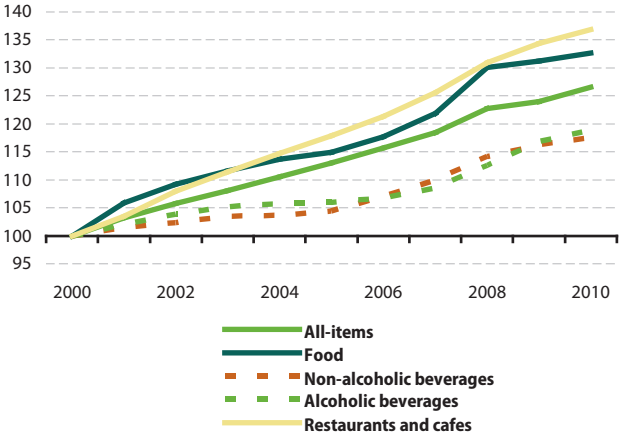
The all-items harmonised index of consumer prices for the EU-27 rose, on average, by 2.4 % per annum between 2000 and 2010. Food prices increased at a slightly faster pace (2.9 % per annum), with particularly large increases in 2001 and 2008. Price rises for purchases in restaurants and cafés were even higher, averaging 3.2 % per annum between 2000 and 2010. In contrast, average price rises for beverages were below the all-items rate, increasing by 1.6 % per annum for non-alcoholic beverages and 1.8 % per annum for alcoholic beverages.

Over the period 2000 to 2010, price developments within the EU-27 for most food products were relatively similar – see Figures 6.10a and 6.10b. Among the eight food products shown, bread and cereals recorded the greatest overall price rise, averaging 3.3 % per annum; this relatively high rate was boosted by a sharp increase (10.0 %) recorded in 2008. The lowest average price increase was recorded for sugar, jam, honey, chocolate and confectionery – up by 2.5 % per annum.

The price indices for beverages were very similar over this period – see Figure 6.10c. Average growth rates ranged from 1.5 % per annum for coffee, tea and cocoa to 1.9 % per annum for beer. Unlike the price indices for most food products, the indices for beverages show a clear change in their development around 2005 or 2006, with price rises approximately twice as high in the five years after 2005 as in the five years before 2005.

Figure 6.9: Development of harmonised indices of consumer prices, EU-27

(2000=100)

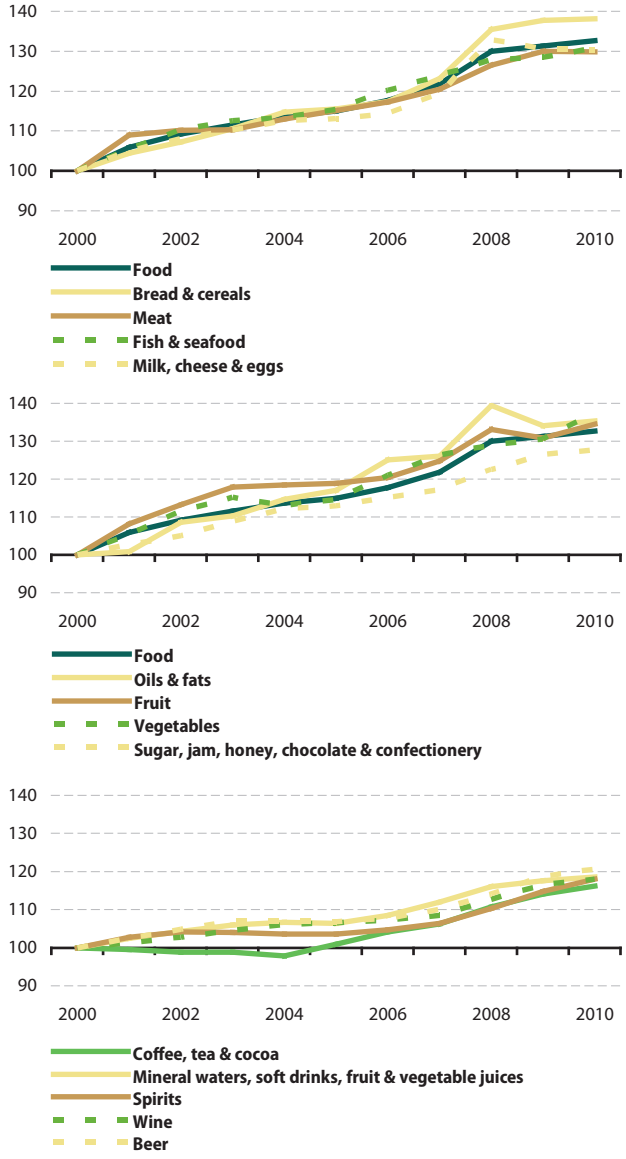


(1) EU average is based on the available countries for each reference period.

Source: Eurostat (Food: From farm to fork statistics, online data code: food_pd_prc2)

Figure 6.10: Development of harmonised indices of consumer prices, EU-27

(2000=100)



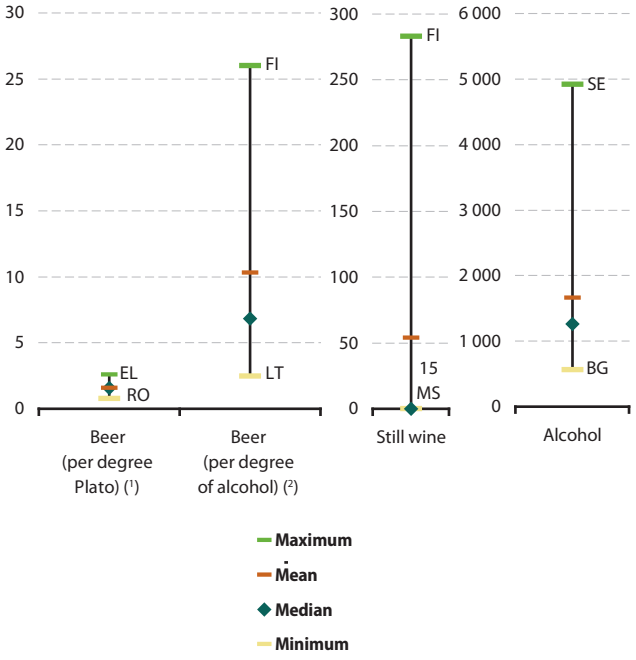
Source: Eurostat (Food: From farm to fork statistics, online data code: food_pd_prc2)

All Member States impose excise duties on beer and ethyl alcohol: these duties vary greatly as can be seen from Figure 6.11. In the case of wine, there are currently 15 Member States that 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, the Netherlands, Belgium, the United Kingdom and Ireland. Sweden, Finland, Ireland and Italy reported the highest duties on ethyl alcohol, over EUR 3 000 per hectolitre.

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 6.11: Excise duty, January 2011 (EUR)

(EUR per hectolitre)



(1) >11° <=15° Plato for Spain (rate per hl divided by 13); >11° <=15° Plato for the Netherlands (rate per hl divided by 13); >11° <=13° Plato for Portugal (rate per hl divided by 12); 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)

Standard VAT rates are generally between 15 % and 25 %, although some products have reduced rates and others are zero rated. Reduced or zero rates are quite commonly applied to food and beverage products, as can be seen in Table 6.7. Reduced rates are far less common for alcoholic beverages, although rates below 15 % are applied in Luxembourg and Portugal for wine. VAT rates for payments in restaurants vary greatly, with 12 Member States applying their standard VAT rate and the remainder applying a reduced rate, as low as 3 % in Luxembourg, and below 10 % in four other Member States.

Table 6.7: VAT rates generally applied, January 2011

(%)

	Foodstuffs	Mineral water/ fruit juices	Beer	Wine	Restaurants
BE	6/12/21	6	21	21	12
BG	20	20	20	20	20
CZ	10	10	20	20	20
DK	25	25	25	25	25
DE	7/19	19	19	19	19
EE	20	20	20	20	20
IE	0/4.8/13.5	21	21	21	13.5
EL	13	13	23	23	13
ES	0.5	8	18	18	8
FR	5.5/19.6	5.5	19.6	19.6	5.5
IT	4/10	20	20	20	10
CY	5/15	15	15	15	8
LV	12/22	22	22	22	22
LT	21	21	21	21	21
LU	3	3	15	12	3
HU	18/25	25	25	25	25
MT	0	18	18	18	10
NL	6	6	19	19	6
AT	10	20	20	20/12	10
PL	5/8/23	8	23	23	8
PT	6/13/23	6	23	13	13
RO	24	24	24	24	24
SI	8.5	8.5	20	20	20/8.5
SK	20/10	20	20	20	20
FI	13	13	23	23	13
SE	12/25	12	25	25	12
UK	0/20	20	20	20	20

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

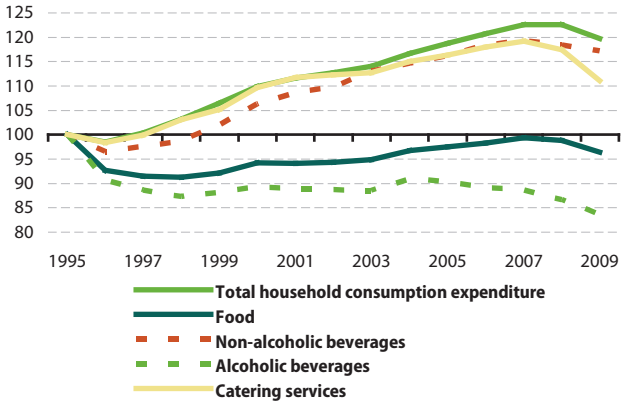
The development of household consumption expenditure between 1995 and 2009 can be seen in Figure 6.12; the indices are volume indices and as such have been adjusted to remove the affects of price changes (inflation); they represent overall expenditure rather than per capita figures and so are influenced by changes in population size.

From 1996 through to 2007, total household consumption expenditure rose in a fairly regular manner, before falling slightly in 2008 and more strongly (by 2.4 %) in 2009 in response to the financial and economic crisis. Expenditure on non-alcoholic beverages and catering services recorded a similar development, although the decline in expenditure on catering services in 2009 was much stronger, falling by 5.4 %. Whereas total household consumption expenditure increased strongly from 1996, it was not until 1999 that expenditure on food and alcoholic beverages started to rise; furthermore, the rate of increase for food and in particular alcoholic beverages was more subdued. From 2007 the development in the volume of expenditure on food was similar to that for total household consumption expenditure. Expenditure on alcoholic beverages peaked in 2004, much earlier than for the other categories and its decline accelerated in 2008 and 2009: by 2009 the volume of expenditure on these beverages was 8.1 % lower than in 2004.

Food, beverages and catering services accounted for 21.5 % of EU-27 household expenditure in 2009; this share ranged from 17.4 % in the Netherlands to 34.1 % in Romania.

Figure 6.12: Development of household final consumption expenditure, volumes, EU-27

(1995=100)

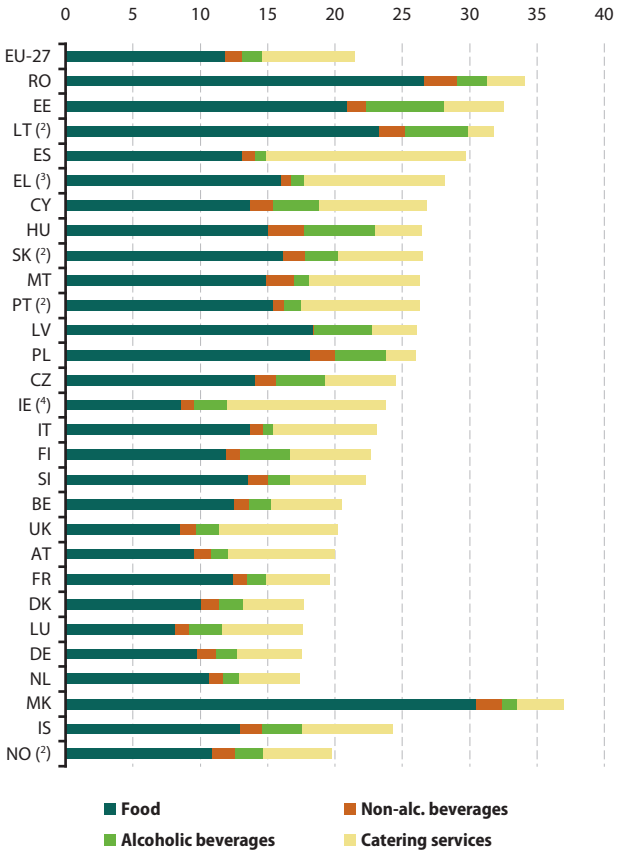


Source: Eurostat (National accounts detailed breakdowns, online data code: nama_co3_k)

As can be seen from Figure 6.13, food accounted for the largest share of average household expenditure on food, beverages and catering services in nearly all Member States, the exceptions being Spain, Ireland and the United Kingdom where expenditure on catering services was higher. These three Member States – as well as Luxembourg and Austria – were the only ones where food did not account for half or more of expenditure on food, beverages and catering services.

Figure 6.13: Mean household final consumption expenditure on food and beverages, 2009 (1)

(% of total)



(1) Bulgaria and Sweden, not available.
(2) 2007.
(3) Provisional.
(4) 2008.

Source: Eurostat (National accounts detailed breakdowns, online data code: nama_co3_c)

Waste

Household waste associated with food essentially concerns food packaging and animal and vegetal wastes. Animal and vegetal wastes from households amounted to 23.8 million tonnes in 2008 in the EU-27, around 10.8 % of all household waste, and equivalent to 48 kg per capita; these levels and this share are believed to be underestimates. From Table 6.8 it can be seen that there was a wide diversity between Member States as regards the share of animal and vegetal wastes in total household waste, with this share exceeding one fifth in Luxembourg, Germany and Belgium, approximately double the EU-27 average.

Table 6.8: Household animal and vegetal wastes, 2008

	Volume (1 000 tonnes)	Share of total household waste (%)
EU-27	23 810.0	10.8
BE	960.3	21.5
BG (1)	0.0	0.0
CZ	131.8	4.1
DK	36.6	1.5
DE	8 082.6	22.8
EE	11.0	2.5
IE (1)	0.0	0.0
EL (2)	0.0	0.0
ES	403.3	1.7
FR	3 364.0	11.5
IT	3 326.1	10.2
CY	41.3	9.5
LV (1)	0.0	0.0
LT	22.1	1.6
LU	71.3	25.8
HU (2)	55.4	1.6
MT	1.7	1.0
NL	1 718.1	18.1
AT	714.9	18.7
PL (1)	0.0	0.0
PT (1)	0.0	0.0
RO	36.7	0.4
SI	42.2	5.9
SK	88.4	5.0
FI	178.6	10.7
SE	490.1	11.2
UK	4 035.2	12.8
NO	312.0	13.2
TR	428.2	1.5

(1) Animal and vegetal wastes are not separately identified within mixed ordinary or total wastes; the EU-27 total is almost certainly underestimated.
(2) Estimates.

Source: Eurostat (Waste statistics Regulation, online data code: env_wasgen)

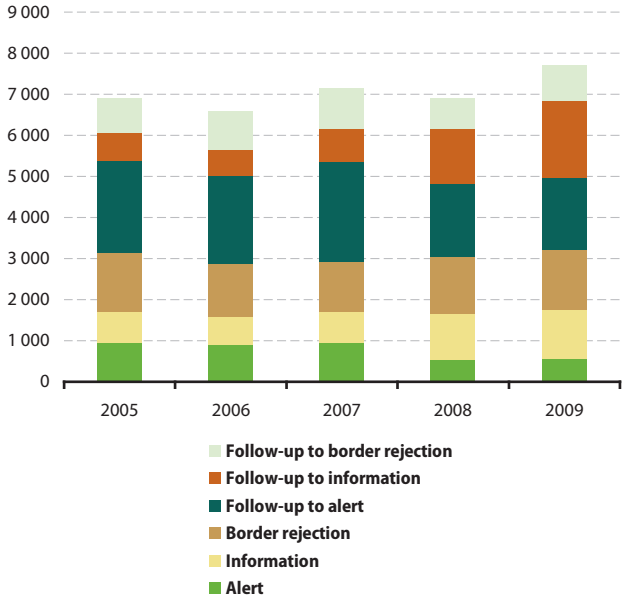
Consumer health

The rapid alert system for food and feed (RASFF) is a notification system within the EU for concerns about food and beverages (including alcoholic beverages), providing a system for the swift exchange of information between Member States and the coordination of response actions to food safety threats.

The total number of alerts increased in recent years, from 6 600 in 2006 to 7 700 in 2009. The 2009 total was made up of 3 200 original notifications and 4 500 follow-up notifications. Among the original notifications, the single largest number of notifications (623) concerned nuts and nut products, followed by fish products (453) and fruit and vegetables (401). Around 28 % of notifications originated within the EU-27 Member States, 10 % originated from China and around 8 % each from Turkey and the United States.

Figure 6.14: Number of notifications to the European Commission within the rapid alert system for food and feed, by type of notification

(number)



Source: European Commission, 'The Rapid Alert System for Food and Feed (RASFF) Annual Report 2009'

Foodborne diseases pose a threat to human health and the well-being of individuals and their dependents. There were a small number of diseases which had a high incidence rate, most notably Giardiasis, Campylobacteriosis and Salmonellosis, a range of less common diseases such as Listeriosis, and a further range of much less common diseases such as Cholera or variant Creutzfeldt-Jakob Disease (vCJD). Incidence rates varied greatly between countries as can be seen by comparing the highest and EU-27 average incidence rates in Table 6.9, and also the overall rates in Table 6.10; rates also varied greatly between reference years, particularly for the less common diseases; note there may be under-reporting for some diseases.

Table 6.9: Number of cases and incidence rates of various foodborne and waterborne diseases, 2008 (1)

	EU-27		Member States	
	Confirmed cases (units)	Incidence rate (per 100 000 inhab.)	Highest incidence rate	Incidence rate (per 100 000 inhab.)
Botulism	112	<0.1	LU	0.2
Brucellosis	735	0.2	EL	2.7
Campylobacteriosis	190 579	44.1	CZ	193
Cholera (2)	26	<0.01	NL	<0.1
Cryptosporidiosis	7 027	2.4	IE	9.4
Echinococcosis	902	0.2	BG	5.1
Vero/Shiga toxin producing Escherichia coli (VTEC/STEC)	3 160	0.7	IE	4.8
Giardiasis	167 025	60.6	RO	691
Hepatitis A	16 741	3.4	LV	123
Leptospirosis	599	0.2	RO	0.9
Listeriosis	1 428	0.3	DK	0.9
Salmonellosis	134 606	29.6	SK	127
Shigellosis	7 121	1.8	BG	14
Toxoplasmosis	1 457	0.8	LT	3.5
Trichinellosis	670	0.1	RO	2.3
Tularaemia	784	0.2	SE	4.2
Typhoid/paratyphoid fever	1 231	0.3	UK	1.0
Variant Creutzfeldt-Jakob disease (vCJD)	2	<0.01	ES	<0.01
Yersiniosis	8 132	2.7	LT	16

(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) Imported in all but one case (for cases for which information is available).

Source: European Centre for Disease Prevention and Control (ECDC), Annual epidemiological report on communicable diseases in Europe, 2010 (http://ecdc.europa.eu)

Table 6.10: Microbiological foodborne diseases, 2009

	Number of outbreaks (units)	Number of cases (units)	Incidence rate (per 100 000 inhabitants)	*of which*, salmonellosis (per 100 000 inhabitants) (1)
EU-27	:	:	120.7	39.5
BE	105.0	912.0	8.6	7.9
BG	:	:	:	21.3
CZ	91.0	43 649.0	416.0	105.6
DK	52.0	8 308.0	150.5	66.6
DE	:	31 397.0	38.4	38.4
EE	8.0	311.0	23.2	19.5
IE	20.0	2 238.0	50.2	10.2
EL	:	:	:	3.6
ES	:	10 965.0	23.9	9.2
FR	:	:	:	11.8
IT	:	:	:	6.7
CY	:	:	:	17.3
LV	:	:	:	48.5
LT	173.0	653.0	19.6	94.1
LU	:	825.0	169.7	28.2
HU	76.0	846.0	8.4	60.2
MT	21.0	285.0	69.0	34.5
NL	35.0	342.0	2.1	:
AT	:	:	:	27.9
PL	464.0	:	:	23.2
PT	:	:	:	2.0
RO	:	1 083.0	5.0	2.9
SI	5.0	83.0	4.1	29.5
SK	428.0	18 941.0	349.6	134.3
FI	57.0	1 868.0	35.0	58.9
SE	:	:	:	45.4
UK	:	:	:	18.7
IS	:	:	:	42.6
NO	:	5 140.0	106.5	40.7
CH	13.0	9 864.0	130.3	17.7
ME	15.0	422.0	66.8	27.5
HR	32.0	520.0	11.7	71.4
MK	3.0	199.0	9.7	7.8
TR	31.0	3 483.0	4.8	1.8

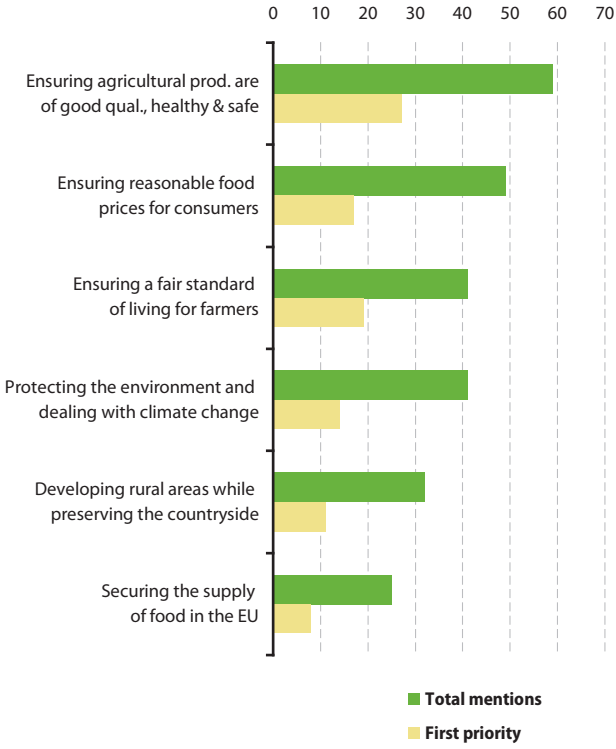
(1) 2008 or 2009.

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

Consumer attitudes

As well as dealing with agricultural matters, the common agricultural policy (CAP) is a policy tool for rural and environmental development. Over time agricultural priorities have shifted; for example, concerns over food safety, health, the environment and animal welfare have become more prominent. A 2009 Eurobarometer survey studied consumers' attitudes towards agriculture and the CAP. Respondents were asked to name up to three priorities for the EU's agricultural policy, with the most frequently mentioned priorities being to ensure: products are of good quality, healthy or safe; prices for consumers are reasonable; the standard of living for farmers is fair.

Figure 6.15: Public opinion on the main priorities for EU agricultural policy, EU-27, November-December 2009 (1)
(%)



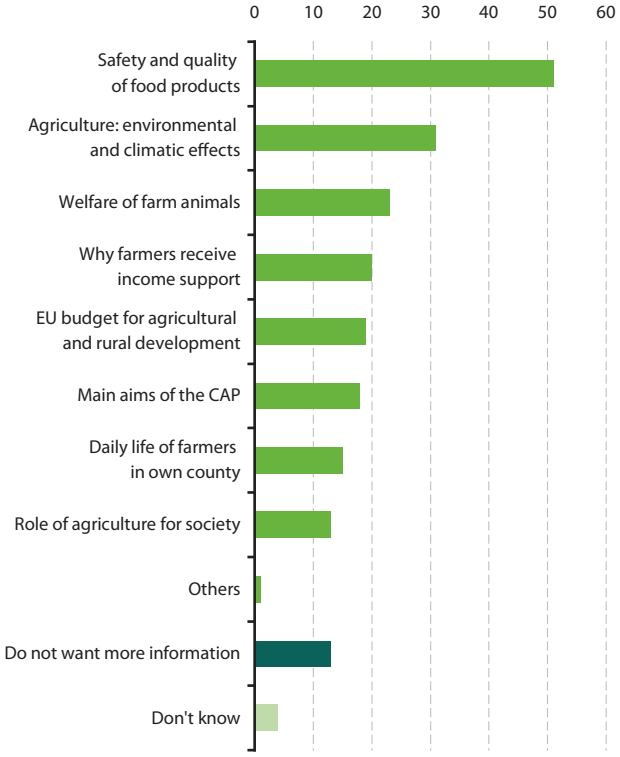
(1) Respondents were asked to select a first priority and up to one other priority.

Source: Europeans, agriculture and the common agricultural policy, Special Eurobarometer 336, November-December 2009 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_336_en.pdf)

Respondents were also asked to indicate up to three agricultural topics for which they would be interested in receiving more information. By far the most common response was for information on the safety and quality of food products, which was therefore in line with respondents' opinions on the priorities for the CAP; this topic was mentioned by half (51 %) of those surveyed. The effect of agriculture on the environment and on the climate was the next subject on which more information was wanted. Around one in eight of those surveyed did not want more information on any agricultural topics.

Figure 6.16: Agricultural topics on which the public express a wish to have more information, EU-27, November-December 2009 ([1])

(%)

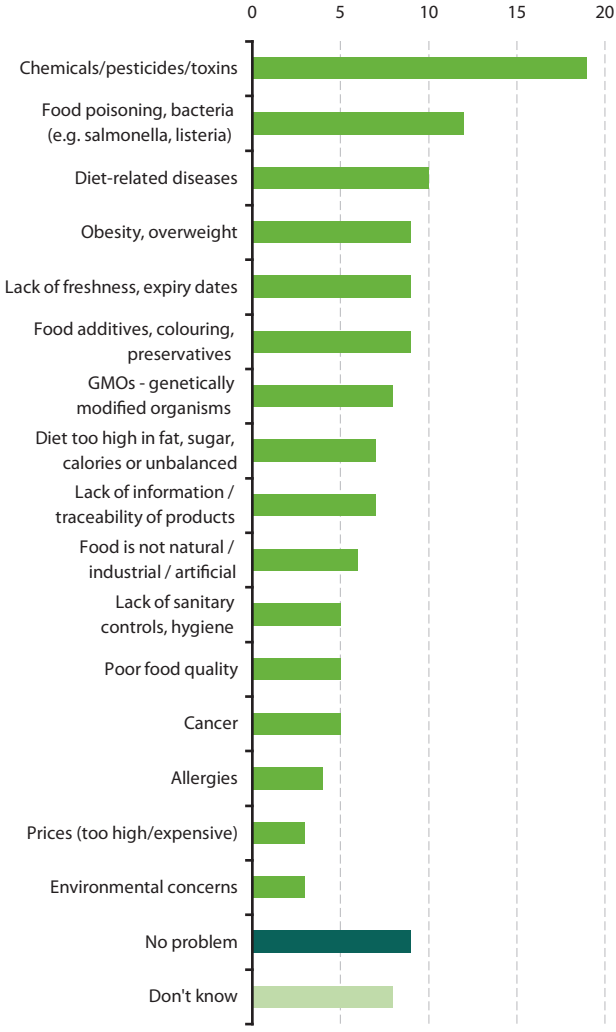


([1]) A maximum of three answers allowed.

Source: Europeans, agriculture and the common agricultural policy, Special Eurobarometer 336, November-December 2009 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_336_en.pdf)

A Eurobarometer survey in 2010 looked at food-related risks. Figure 6.17 indicates the wide range of problems and risks that respondents spontaneously associated with food. The presence of chemicals, pesticides and toxins was the most common answer, followed by concerns over food poisoning.

Figure 6.17: Problems and risks associated with food spontaneously suggested by the public, EU-27, June 2010
(%)



Source: Food-related risks, Special Eurobarometer 354, November 2010 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_354_en.pdf)

As well as recording respondents' concerns, the same survey from 2010 looked at the extent to which respondents were concerned about 17 specific issues. Among these issues the highest rates of concern were recorded for pesticide residues in crops, medicinal or hormonal residues in meat, or pollutants (for example, in fish), for which around 70 % of respondents said they were fairly or very worried. A similar but slightly smaller proportion (around 66 % to 68 %) were worried about the quality and freshness of food, genetically modified organisms, and food or drink additives.

Table 6.11 shows the top concern in each of the Member States relating to food problems or risks among the 17 issues surveyed. In nearly all cases these were concerns about food itself, although in Finland, Sweden and the United Kingdom the top concern was farm animal welfare.

Table 6.11: Public opinion on top concerns for specific problems and risks associated with food, June 2010

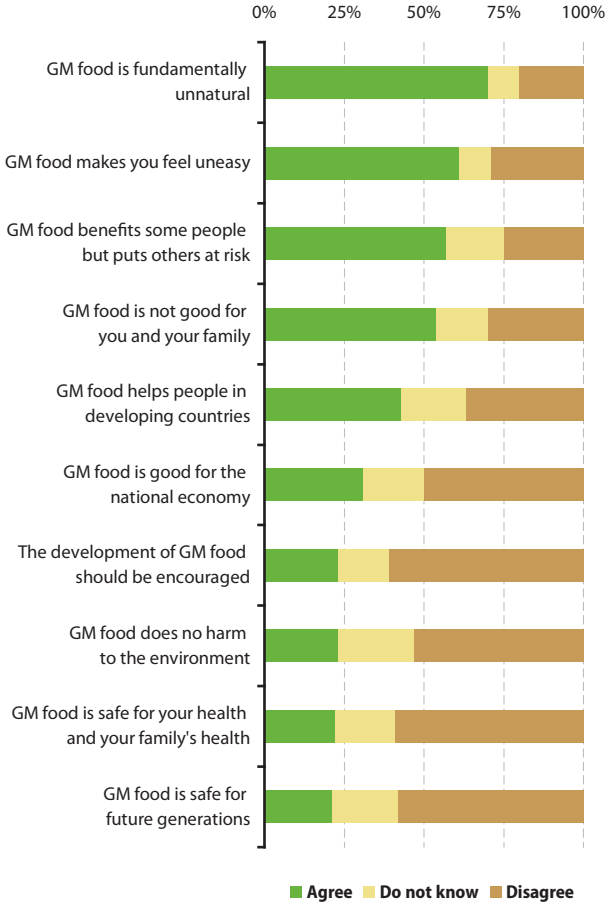
	Main concern
BE	Pesticides residues
BG	Pesticides residues & food poisoning from bacteria
CZ	Food poisoning from bacteria
DK	Quality and freshness of food
DE	Pesticides residues
EE	Quality and freshness of food
IE	Quality and freshness of food
EL	Pesticides residues
ES	Quality and freshness of food
FR	Pesticides residues & pollutants like mercury
IT	Pesticides residues
CY	Antibiotics residues in meat
LV	Quality and freshness of food
LT	Pesticides residues & quality and freshness of food
LU	Pesticides residues
HU	Pesticides residues
MT	Quality and freshness of food
NL	Antibiotics residues in meat
AT	Pesticides residues & GMOs
PL	Additives in food and drinks
PT	Quality and freshness of food
RO	Additives in food and drinks
SI	Pesticides residues
SK	Food poisoning from bacteria
FI	The welfare of farmed animals
SE	The welfare of farmed animals
UK	The welfare of farmed animals

Source: Food-related risks, Special Eurobarometer 354, November 2010 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_354_en.pdf)

In 2010 a Eurobarometer survey asked consumers for their views on foods from genetically modified (GM) organisms. Figure 6.18 shows that a relatively large majority of respondents expressed concerns about GM foods, indicating that they find such foods unnatural and that these foods made them feel uneasy. Overall, 61 % of respondents did not agree that the development of GM food should be encouraged.

Figure 6.18: Proportion of respondents (public opinion) agreeing with statements concerning genetically modified foods, January-February 2010

(%)

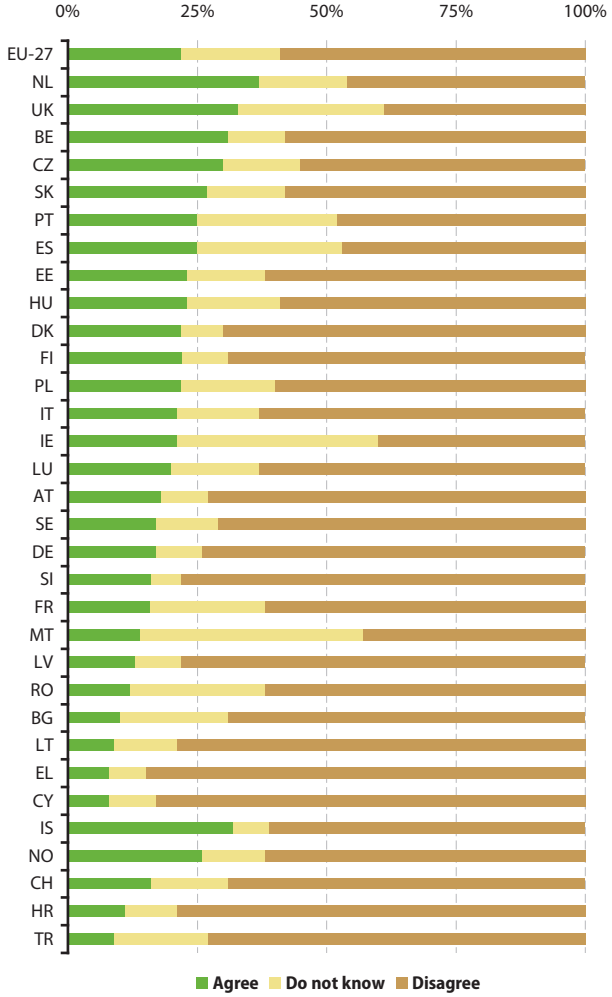


Source: Biotechnology, Special Eurobarometer 341, October 2010 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_341_en.pdf)

On the specific issue as to whether GM foods are safe for human health, three fifths (59 %) of respondents across the EU-27 disagreed. The highest proportion of respondents regarding GM foods as safe for human health was in the Netherlands (37 %) and the lowest proportion in Cyprus (8 %).

Figure 6.19: Proportion of respondents (public opinion) agreeing that GM foods are safe for their and their family's health, January-February 2010

(%)



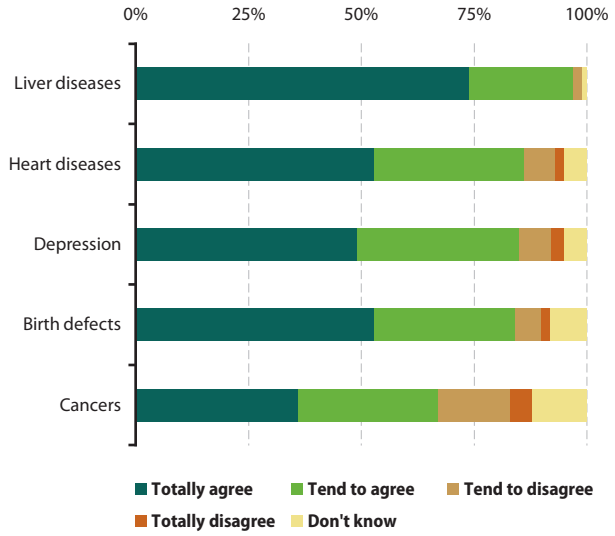
Source: Biotechnology, Special Eurobarometer 341, October 2010 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_341_en.pdf)

Alcoholic beverages represent an important cultural element in several EU regions or countries, with many products having a protected geographical status, such as Budějovické pivo (CZ), Gloucestershire cider/perry (UK), and Sahti (FI). Nevertheless, harmful and hazardous alcohol consumption can be linked to a variety of health problems as well as traffic accidents, and can have a broad social impact through anti-social behaviour, crime, family and work problems. As well as the human consequences, alcohol abuse has economic costs, for example in terms of absenteeism and increased healthcare expenditure. In 2006 the European Commission adopted a Communication on an EU strategy to support Member States in reducing alcohol-related harm. More information on activities related to alcohol is available at ec.europa.eu/health-eu/my_lifestyle/alcohol.

A Eurobarometer survey from 2009 looked at attitudes towards alcohol to assess awareness of the health and social impact of alcohol consumption. Nearly all persons surveyed were of the opinion that alcohol consumption can lead to liver disease, and more than four in five that alcohol can lead to heart disease, depression and birth defects. A smaller but nevertheless large proportion (67 %) of respondents was aware of risks related to cancers.

Figure 6.20: Proportion of population aware of specified health risks from alcohol, EU-27, October 2009

(%)



Source: EU citizens' attitudes towards alcohol, Special Eurobarometer 331, April 2010 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_331_en.pdf)

Main data sources

Food: from farm to fork statistics

This domain provides access to various statistical collections from a broad variety of different sources. Statistics providing information on the safety of food for human or animal consumption are included, regardless of whether these are produced within the EU or imported.

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. As such, this domain is the 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 concerning around 200 crops for crop areas, production and yields. These are mostly covered by Council regulations, supplemented by gentlemen's agreements for fresh fruit and vegetables: from the 2010 harvest a common legal basis will be used for data for all of these products. Crop production figures relate to harvested production.

Statistics on milk, milk products, eggs and animal production for meat product are also compiled according to Community legislation. Milk statistics cover the production on the farm and collection of milk from cows, ewes, goats and buffaloes. Data on animals generally concern the livestock population of animals at the year's end (in other words in December) and the amount of meat production.

Agricultural products: supply balance sheets

Each supply balance sheet refers to all the uses and all the transactions which have occurred in the market between harvesting and 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).

Survey on the structure of agricultural holdings

The basic farm structure survey (FSS) is carried out by Member States every ten 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.

Economic accounts for agriculture (EAA)

The EAA comprise a production account, a generation of income account, an entrepreneurial income account, and some elements of a capital account. The data for the production account and for gross fixed capital formation are transmitted to Eurostat by Member States in both current prices and the prices of the previous year.

Agri-environmental indicators (AEIs)

In 2006 the European Commission adopted 28 AEIs to assess the interaction between the CAP and the environment. These AEIs track: farm management practices; agricultural production systems; pressures and risks to the environment; the state of natural resources.

Short-term business statistics (STS)

STS include many of the key short-term indicators that are vital for analysis of recent economic developments and the development of monetary and economic policy. STS indicators that are provided

in the form of indices allow the rapid assessment of the economic climate within an economy. STS do not provide information on levels, for example the monetary value of output or the number of persons employed. Retail trade turnover indices can also be used as short-term indicators for final domestic demand.

Structural business statistics (SBS)

SBS covers the business economy, which includes industry, construction and services (NACE Rev. 2 Sections B to N and Division 95). 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.

SBS include business demography variables (such as the number of enterprises); output related variables (such as turnover and value added); input related variables (such as labour input, purchases of goods and services, capital expenditure).

Prodcom

Prodcom statistics provide detailed information on the output (sold production) of mining, quarrying and manufacturing products. The statistics are based on the Prodcom List which consists of about 4 500 headings. Products are listed at an 8-digit level; the first four digits are based on NACE, the next two on the CPA. Most headings correspond to one or more Combined Nomenclature (CN) codes.

Freight transport

The transport of goods is measured in tonnes transported or tonne-kilometres (tkm). Transport statistics cover six different transport modes: road; rail; pipeline; inland waterway; sea; air. Most of the data collections are based on legislation while some are based on voluntary agreements.

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. Note that contrary to the other statistics in this publication, the information that is presented for external trade is based on a moving EU aggregate that reflects the changes in membership of the Union over time.

Household final consumption expenditure (national accounts)

Household final consumption expenditure (HFCE) consists of expenditure incurred by resident households on consumption goods or services. As well as purchases of consumer goods and services, final consumption expenditure includes the estimated value of barter transactions, goods and services received in kind, and goods and services produced and consumed by the same household. An analysis at the 2 and 3-digit level of COICOP is available from national accounts.

Harmonised indices of consumer prices

Harmonised indices of consumer prices (HICPs) 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.

Price level indices

Comparative price levels are defined as the ratios of purchasing power parities (PPPs) to market exchange rates in each country. They give a measure of the difference in cross-border price levels by indicating, for a given product group, the price level of each country in relation to the EU average. Hence, if the price level index for a country is 110, this means that the price level in that country, for the product group in question, is 10 % higher than the average EU price level. The production of PPPs is an undertaking shared by the National Statistical Institutes of the participating countries, Eurostat and the Organization for Economic Co-operation and Development (OECD).

Glossary

Annual work unit:
An annual work unit (AWU) is equivalent to full-time employment. One AWU corresponds to the work performed by a person engaged in full-time agricultural work on the holding over a 12-month period. The annual working time of such a worker is 1 800 hours (225 working days of 8 hours per day), unless there are different specific national provisions governing contracts of employment.

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 or if a certain part of their production is for sale.

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 (in other words taxes on products) plus any subsidy receivable on that unit as a consequence of its production or sale (in other words 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.

Enterprise:
The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

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 (in other words having reached school-leaving age) who carried out farm work on the holding covered 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 past retirement age who continue to work on the holding are also included.

Farm type and economic size unit:
The Community typology for agricultural holdings was established in 1978; the most recent revision dates from 2008 and reflects the growing importance of income from gainful activities other than agricultural activities. The 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.

For each activity on a holding, or farm (for example wheat, dairy cows or vineyard), a standard gross margin (SGM) is estimated, based on the area (or the number of heads) and a regional coefficient. The sum of all margins, for all activities of a given farm, is referred to as the economic size of that farm. The economic size is expressed in European size units (ESU), 1 ESU being equal to EUR 1 200 of SGM.

Foodborne diseases:
Foodborne 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, for example 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.

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 dairy cow producing 3 000 litres of milk per year = 1 LSU.

Local unit:
The local unit is an enterprise or part thereof (for example a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which – save for certain exceptions – one or more persons work (even if only part-time) for one and the same enterprise.

Organic farming:
Organic farming is a system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards, and a production method in line with the preference of certain consumers for products produced using natural substances and processes. The organic production method thus plays a dual societal role, where

it on the one hand provides for a specific market responding to a consumer demand for organic products, and on the other hand delivers public goods contributing to the protection of the environment and animal welfare, as well as to rural development.

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.

TSG:
An agricultural product intended for human consumption or foodstuff with a traditional composition, or produced according to a traditional production method may become a TSG (traditional speciality guaranteed).

Utilised agricultural area:
The utilised agricultural area (UAA) is the total of arable land, permanent grassland, land used for permanent crops, and kitchen gardens. The UAA excludes unutilised agricultural land, woodland and land occupied by buildings, farmyards, tracks, ponds, and so on

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 is analysed by source (several business activities according to NACE and household activities) and waste category (according to the European waste classification for statistical purposes). The information on waste treatment has an analysis by treatment type (recovery, incineration with energy recovery, other incineration, disposal on land, and land treatment) and by waste category.

European Commission

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Food: from farm to fork statistics

This pocketbook provides the reader with information on how the food chain evolves in Europe; it presents a range of statistical indicators for each step of this chain from the farm to the fork, passing from production on the farm, through food processing, to logistical activities such as importing, transporting and distributing, before reaching the end consumer either through purchases made in retail outlets or through the consumption of food and drink in cafés, bars and restaurants. Its aim is to give a summary of the data currently available within Eurostat's Food: from farm to fork database. The publication structure follows closely the approach adopted by the European Commission on food safety policy, and the indicators presented have been developed with this in mind. This publication may be viewed as a compendium of the data available within Eurostat on the food chain.

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