Food Statistics Pocketbook

2010

Food Statistics Pocketbook 2010

Department for Environment, Food and Rural Affairs

Contents

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National Statistics

National Statistics

The following statistics are “National Statistics” (official statistics that comply with the national statistics code of practice).

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Further information on National Statistics can be found on the UK Statistics Authority website.

Foreword

This publication provides a concise round-up of statistics on food covering the economic, social and environmental aspects of the food we eat (excluding agriculture). It contains a mixture of National Statistics, official statistics and unofficial statistics to fill gaps in the evidence base.
Chapters are:

1. Food Chain (beyond agriculture)
2. Prices and Expenditure
3. Global and UK Supply
4. Environment
5. Waste
6. Dietary Health
7. Safety and Confidence

Economic Definition

The UK food sector is defined as food manufacturing, food wholesaling, food retailing and non-residential catering. In terms of the standard industrial classification (SIC 2007) it is defined as:

Food Manufacturing:	10 & 11
Food Wholesaling:	46.17 & 46.3 less 46.35
Food Retailing:	47.11 & 47.2 less 47.26 & 47.81
Non-residential Catering:	56

The deductions are to remove non-food items as far as possible.

The agri-food sector is the food sector plus agriculture and fishing. Agriculture and fishing are shown in several charts for comparison.

Data sources

Data comes from Government surveys run by the Office for

Foreword

National Statistics and Defra and from a wide range of other sources including Government agencies and commercial organisations. Further information on data sources, including webpage links, can be found at:

http://www.defra.gov.uk/evidence/statistics/foodfarm/food/pocketstats/index.htm

Data Updates

The statistics are derived from a wide range of sources which are updated throughout the year. The pocketbook was published on 30 September 2010 and may not contain all of the latest data.

Glossary

Net capital expenditure

This is calculated by adding to the value of new building work, acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

Gross Value Added (GVA)

GVA is the difference between output and intermediate consumption for any given sector / industry. This is the difference between the value of goods and services produced and the cost of raw materials and other inputs which are used up in production.

Total Factor Productivity (TFP)

Productivity measures the efficiency at which inputs are converted into outputs. Total Factor Productivity provides a comprehensive picture of growth.

Foreword

Food Security

Some indicators from the Food Security Assessment are covered in “Prices and Expenditure” (2.2, 2.4, 2.5), “Global Supply and Prices” (3.1, 3.5, 3.6, 3.7) and “Safety and Confidence” (7.1, 7.2, 7.5, 7.6).

Related Publications:

“Family Food 2008”
“Agricultural Statistics in your Pocket 2009”
“The Environment in your Pocket”

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Key Statistics

Economy

- The agri-food sector made up 7.1% of national market sector GVA in 2008 and 14% of national employment in Q1 2010.
- Total Factor Productivity in the food sector rose by 2.0% in 2008 with a rise of 3.9% in food and drink retailing.
- Education, healthcare and services accounted for 6.8% of food service sales in 2009, worth £2.1 billion.

Food Supply & Prices

- The percentage of total household expenditure going on food rose from 15.2% to 16.8% in 2008 for low income households (bottom quintile).
- Between June 2007 and June 2010 food and non-alcoholic drink prices rose in the UK by double that in the EU overall, 2.9 times as much as in Germany and 2.7 times as much as the rise in France.
- In 2008, 24 countries together accounted for 90% of UK food supply. Just over half of this (52%) was supplied domestically from within the UK.

Environment and Waste

- Total GHG emissions from the food chain are estimated to have been around 160 million tonnes of CO_2 equivalent in 2007, with an external cost estimated at £7.1 billion.
- A third of GHG emissions in the UK food chain are attributed to UK farming and fishing.

Key Statistics

- UK households dispose of an estimated 5.3 million tonnes of avoidable food waste every year, with the cost to households estimated at £12 billion per year or £480 for an average household.

Health & Food Safety

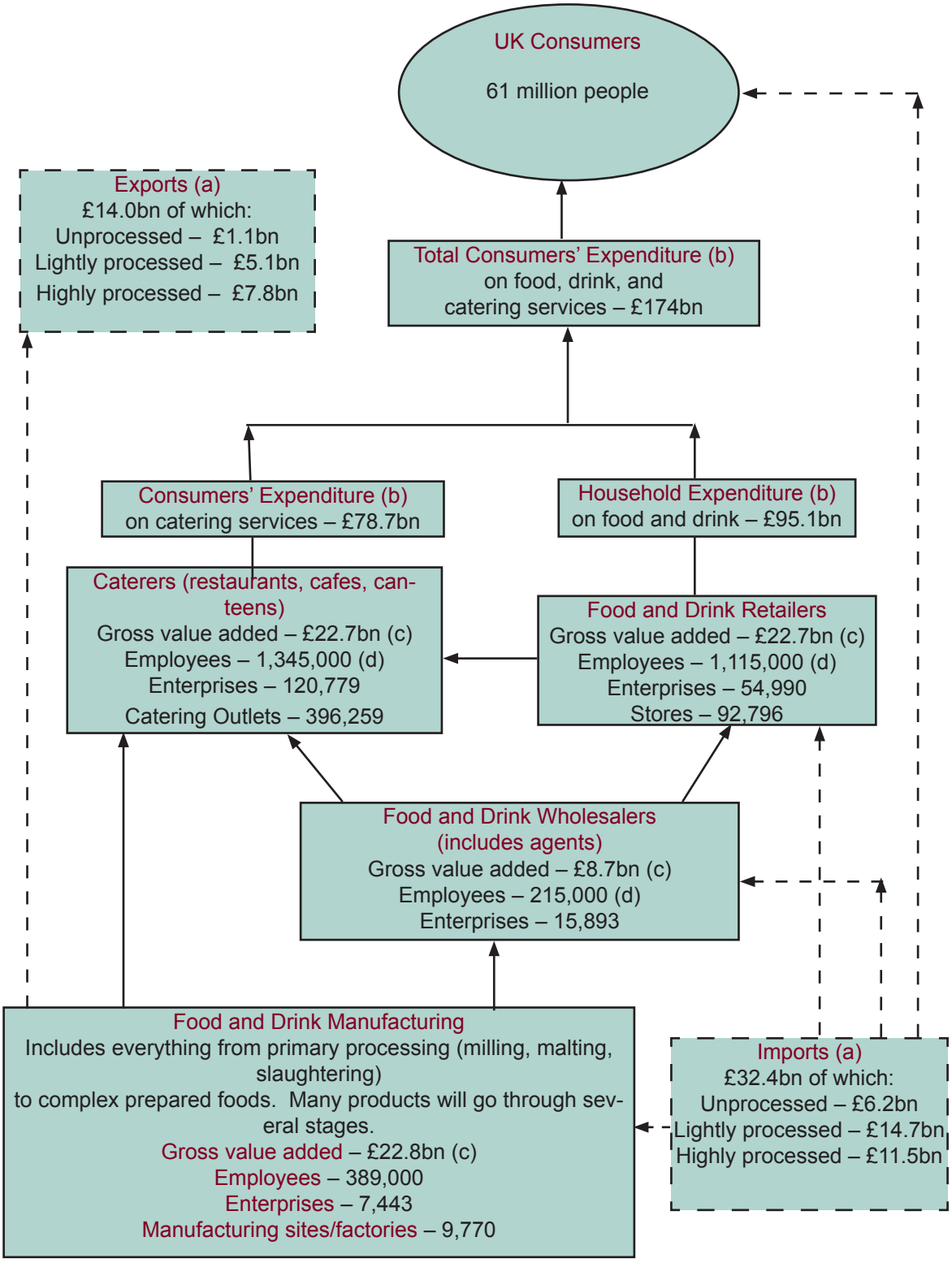
- Fruit and vegetable consumption is falling. Both the Health Survey for England and the Family Food Survey report drops in 2007 and 2008.

- In England in 2008 25% of people aged 16 or over and 16% of children were obese. The total annual cost of obesity and overweight for England is estimated to have been about £8 billion in 2008.

- In March 2010 59% of people surveyed said that they were concerned about food safety issues. 43% were concerned about food poisoning such as salmonella and E.coli.

Chapter 1: Food Chain

1.1: Economic summary of the UK food chain beyond agriculture[1]



1.1: Economic summary of the UK food chain beyond agriculture[1] (continued)

(a) Overseas trade data is provisional for the full year 2009 from HM Revenue and Customs (data may not equal total due to rounding). Dashed lines indicate main trade flows.

(b) Consumers' expenditure, properly known as household final consumption expenditure, is provisional from the Office for National Statistics for full year 2009 and is calculated at current prices (data may not equal total due to rounding).

(c) Gross value added (GVA) is the difference between the value of goods and services produced and the cost of raw materials and other inputs used up in production. GVA figures are from the Office for National Statistics and are final data for full year 2008, which is calculated at basic prices (market prices less taxes plus subsidies). Food and drink manufacturing GVA is an estimate, as GVA data for beer in 2008 has been 'suppressed' for confidentiality reasons by the Annual Business Inquiry.

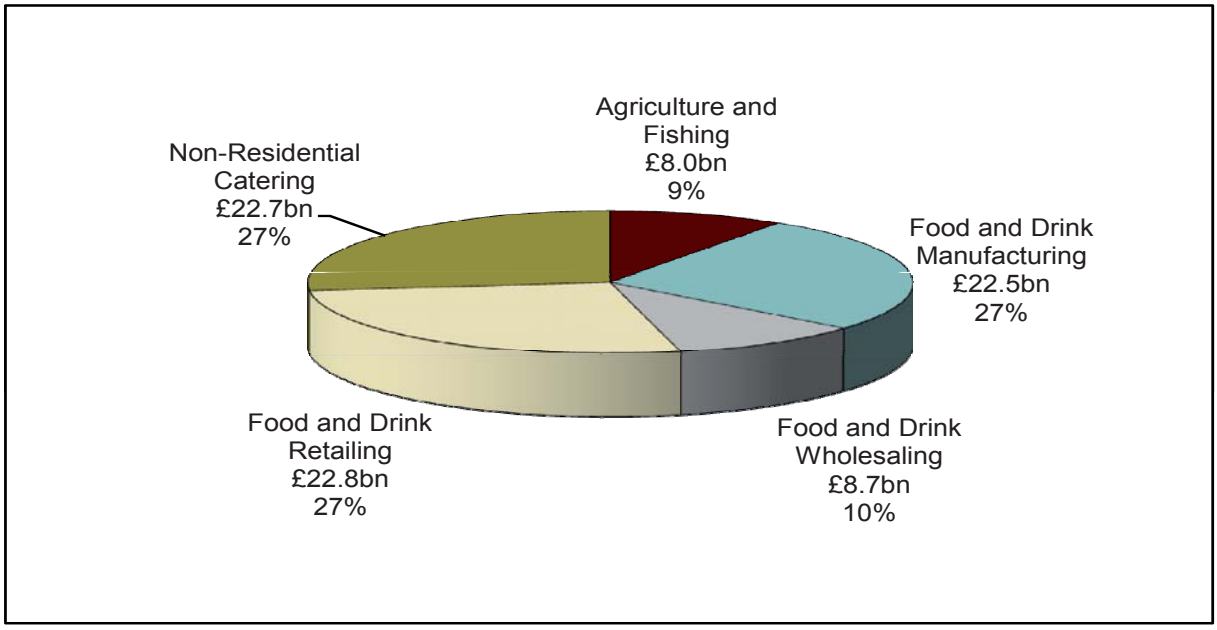
(d) Employee data for food and drink wholesalers, grocery retailers, and caterers, is for Great Britain only and is for Q1 2010 from the Office for National Statistics. Food and drink wholesaling, and agricultural wholesaling include an estimate of employment by food and drink wholesaling agents and wholesalers of agricultural machinery from the Annual Business Inquiry (employee data is rounded).

(e) GVA for food and drink manufacturing does not include farm animal feed GVA. This is included in the GVA for the agricultural supply industry.

[1] Excludes sectors downstream from food and drink manufacturing such as the food and drink supply industry (food processing machinery).

Food Chain

1.2: Gross value added of the UK agri-food sector, 2008



Source: Annual Business Inquiry (ONS) & Agriculture in the United Kingdom (Defra)

- The agri-food sector contributed £84.6 billion or 7.1% to national market[2] sector GVA and 6.7% to national GVA in 2008.

- Agriculture and fishing contributed 9.4% of GVA in the agri-food sector in 2008, having risen from 7.4% the previous year due to higher prices for agricultural commodities.

- The food sector (excluding agriculture) increased by 31% between 2000 and 2008 while the whole economy increased by 51%.

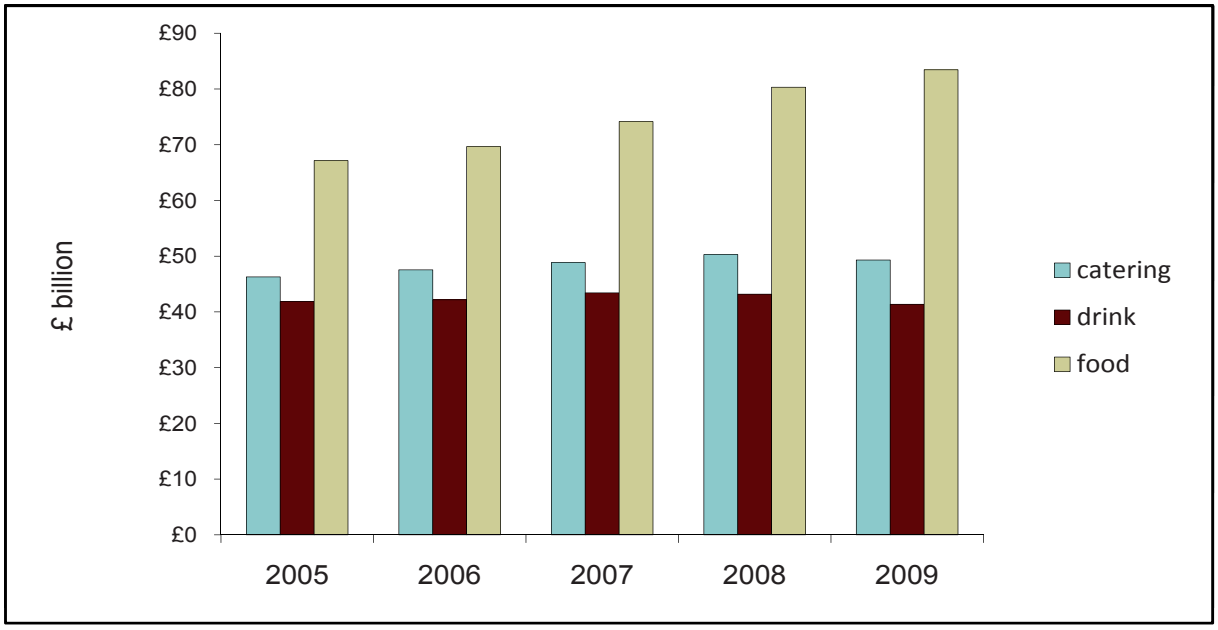
- Gross value added of non-residential catering increased by almost 50% between 2000 and 2008, in line with GVA growth in the whole economy.

- There were 200 thousand businesses registered for value added tax and/or pay as you earn in the food sector in 2008 with 120 thousand in non-residential catering.

[2] The market sector covers private non-financial corporations, private financial corporations, household and public corporations. It excludes government and non-profit institutions serving households.

Food Chain

1.3: UK Consumer expenditure on food[3], drink and catering



Source: (ONS)

- Consumer expenditure on food, drink and catering was £174 billion in 2009, up just 0.2% on 2008. Food shopping accounted for almost half of spend in the sector in 2009.

- Seasonally adjusted figures suggest expenditure on food, drink and catering rose in Q4 2009 and Q1 2010. This follows a fall in each of the three preceding quarters.

- Consumer expenditure on food increased by 20% between 2006 and 2009 while spending on catering and alcoholic drinks stagnated.

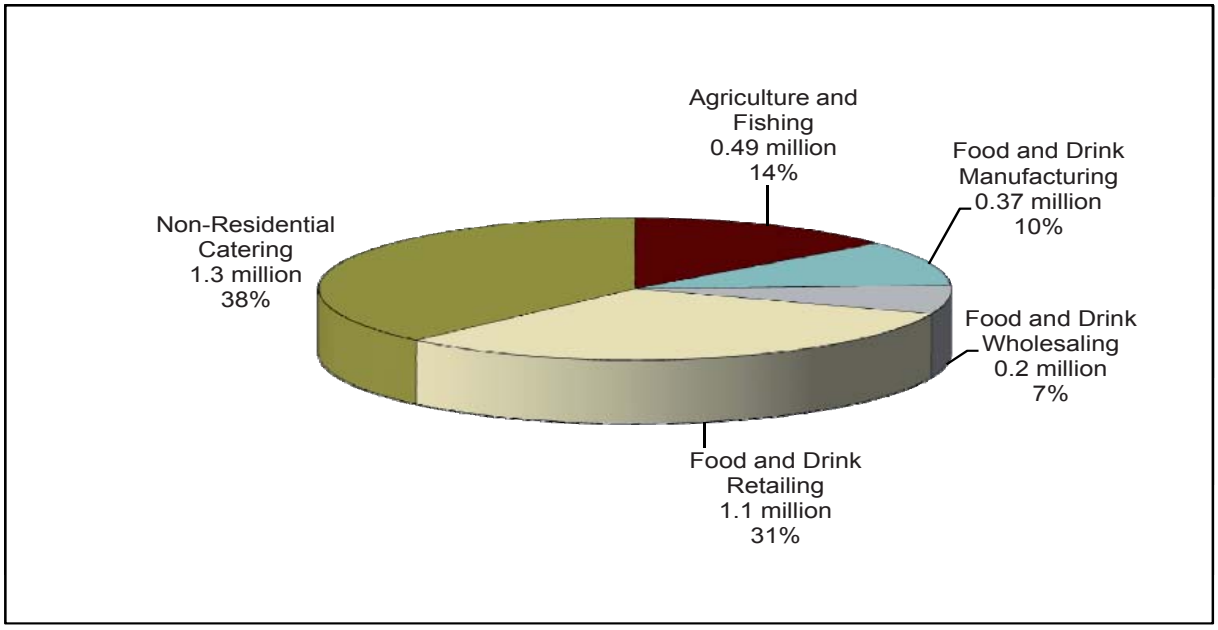
- The value of consumers' expenditure in the food sector rose by 0.2% in 2009, with a rise of 3.9% on household food, a drop of 1.9% on non-residential catering and a drop of 4.2% on alcoholic drinks.

- The volume of consumers' expenditure in the food sector fell by 4.1% in 2009, with falls of 1.4% on household food, 4.4% on non-residential catering and 8.5% on alcoholic drinks.

[3] 'Food' includes non-alcoholic drinks. 'Drink' is alcoholic drinks.

Food Chain

1.4: UK food chain employees, GB basis[4], Q1 2010



Source: Labour Market Trends (ONS)[5] and June Survey (Defra)

- The food chain had 3.06 million employees in Q1 of 2010, 2.2% fewer than in Q1 of 2009.

- The total agri-food sector, which includes agriculture[6] and fishing, covers 14% of national employment.

- Employment in food and drink manufacturing has fallen by 19% since 2001 driving growth in productivity. Employment in non-residential catering fell by 4.2% in the year to March 2010, and by 2.0% in food and drink retailing.

- Men accounted for 55% of hours worked in the food sector, 68% in food manufacturing and 73% in food wholesaling in 2009. Women accounted for 52% of hours worked in food retailing and 49% in non-residential catering in 2009.

- Just over half the employees in the food sector were part-time in 2009.

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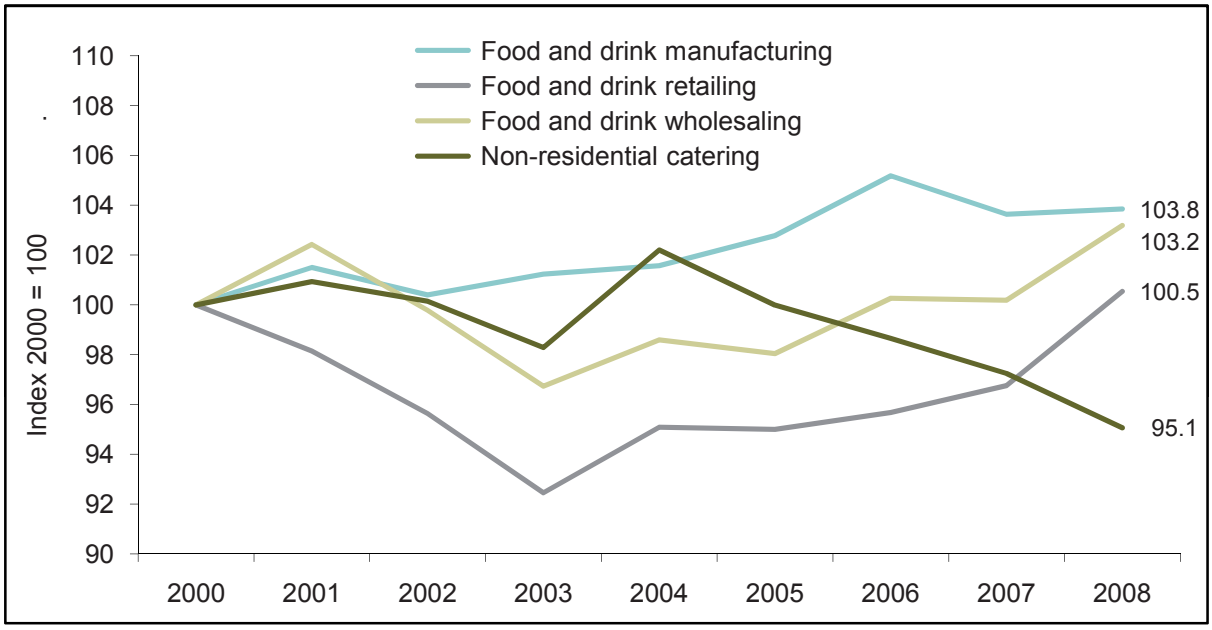
[4] Data for the food sector is not available for Northern Ireland. However, numbers are likely to be small. For example, there were a total of 87,000 employees in the entire manufacturing sector in Northern Ireland in the third quarter of 2005.

[5] Wholesaling, manufacturing and retailing include tobacco.

[6] Agriculture is on a GB basis and includes self employed farmers, farmers' partners, spouses and directors.

Food Chain

1.5: Trends in the total factor productivity (TFP) of the UK food sector[7]



Source: Food Chain Productivity Incorporating External Impacts, SAC Commercial Ltd, report commissioned by Defra

- TFP in the food sector rose by 2.0% in 2008 with rises for food and drink retailing and wholesaling while non-residential catering dropped.

- Total Factor Productivity of food and drink retailing increased by 3.9% in 2008 due to a 4.9% drop in volume of purchases while volume of output remained steady. Between 2000 and 2003 TFP in food and drink retailing fell, possibly because capital investment in stores led to benefits to shoppers not captured in the data. The volume of capital consumption in distribution has risen by over 60% since 1998.

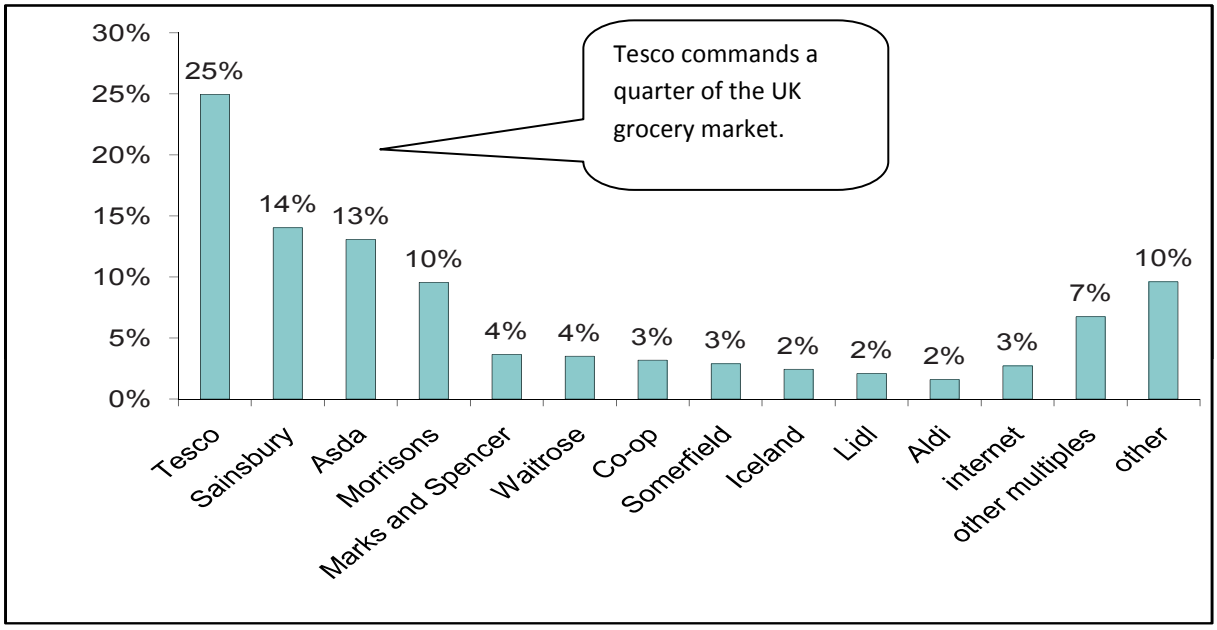
- TFP of food and drink manufacturing remained static in 2008 following a fall in 2007 when the volume of output fell by 2.4%. Previously it increased year by year as input from labour decreased.

- TFP in non-residential catering has been falling up to 2008 as volume of output falls while labour and capital flows have been rising. A large drop in labour in 2009 may change this.

[7] Wholesaling includes tobacco (SIC 46.35).

Food Chain

1.6: UK grocery market shares 2008

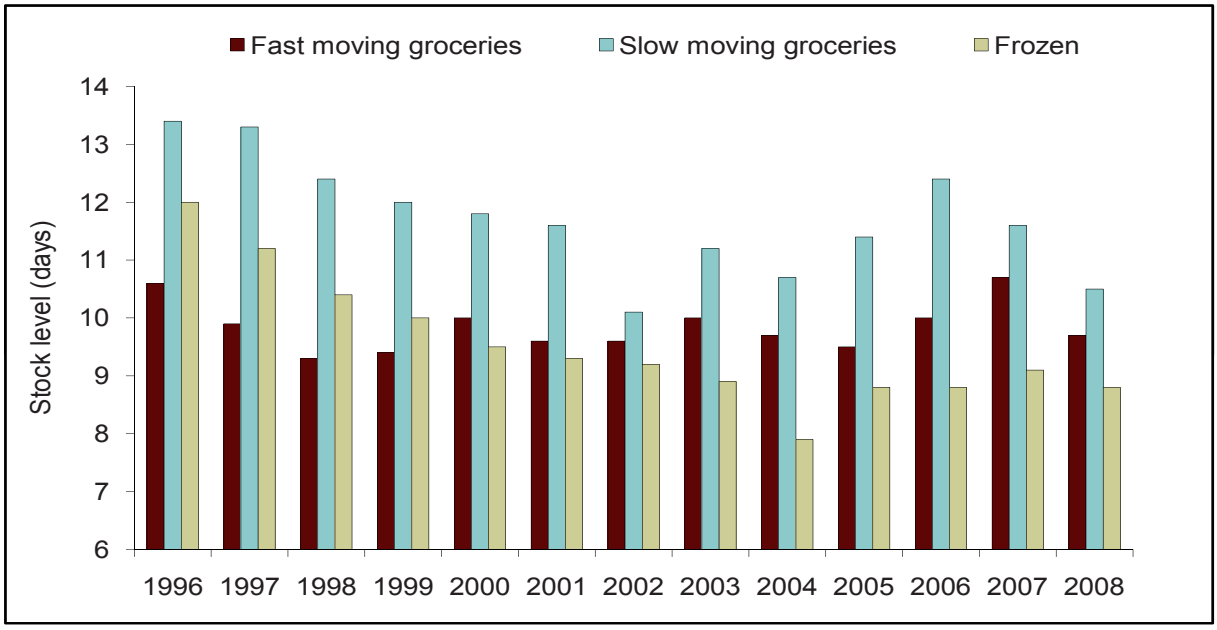


Source: Living Costs and Food Survey (LCFS) 2008, (Defra/ONS)

- The combined market share of food and non-alcoholic drinks of the largest four food and drink retailers was 62% in 2008.
- Tesco commanded the largest market share of food and non-alcoholic drinks in 2008 at 25%.
- Internet shopping, which includes the large supermarkets, accounted for 2.7% of food and drink sales in 2008, up from 2.1% in 2007 (a 30% rise).
- The Living Costs and Food Survey is the best quality data but not as up to date as the Kantar Worldpanel.
- Kantar Worldpanel indicates that Tesco commands 30% of the market, but this includes some non-food sales. It also indicates that in 2010 Sainsbury, Morrisons, Waitrose and Aldi slightly increased market share at the expense of the Co-operative.

Food Chain

1.7: Average retailer warehouse stock levels (days) by grocery category[8]



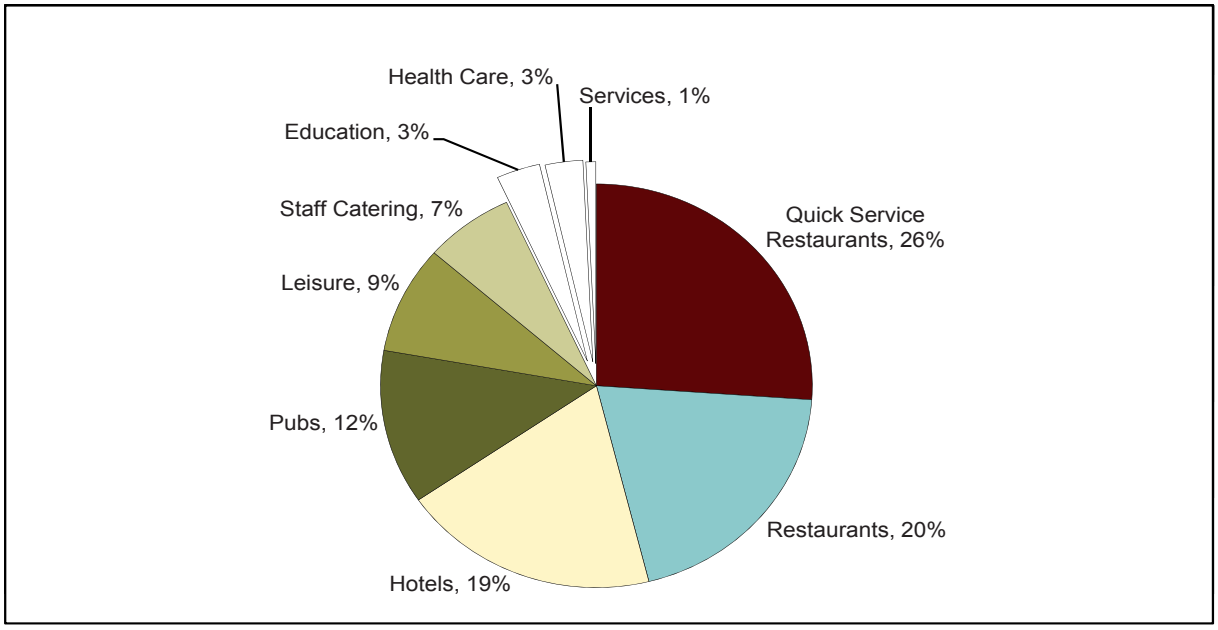
Source: IGD Research, 2010

- Since 1996 warehouse retail stocks have been in decline in frozen lines and ambient slow moving groceries (SMGs).
- Stock levels of SMGs fell from 13 days cover to around 10 days cover, and frozen goods from around 12 days to 9 days cover.
- Stock levels of fast moving groceries (FMGs), such as bread, milk etc remained fairly stable over this period at around 10 to 11 days cover. In 2008, however, there was a decline in cover of one full day.
- The declining trend in stock levels since 1996 appeared to have reversed between 2004 and 2007, with all three categories recording increases of around one day.

[8] In general, produce, chilled and fresh categories do not have a warehouse stock-holding but are cross-docked directly from the supplier onto store deliveries. For this reason, these categories are not included.

Food Chain

1.8: Public sector food procurement and sales of food and drink in the UK food service sector, 2009



Source: Horizons for Success (2009)

- According to Horizons for Success, education, healthcare and services accounted for 6.8% of food service sales but 30% of meals served outside the home in 2009. This equates to £2.1 billion in sales and 2.46 billion meals.

- Education outlets accounted for the highest average price per cover at £1.10 and provided a total of 1.1 billion meals in 2009.

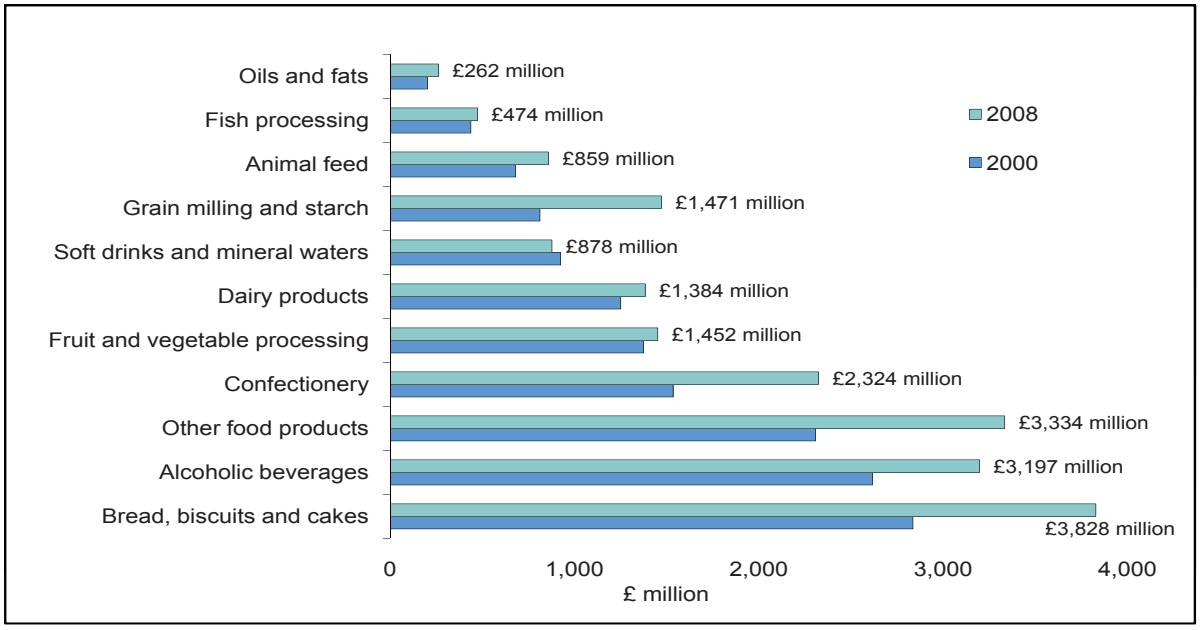
- Healthcare and services provided a combined total of 1.3 billion meals in 2009 with an average cover price of £0.91 and £1.03 respectively.

- Approximately half of the £2.1 billion spent by the public sector is on food ingredients, the rest being on catering services, kitchen equipment etc.

- The majority of public sector food procurement is undertaken by schools and colleges, prisons, the armed services and the NHS. Departments' central offices, which accounts for staff canteens and hospitality services within the departments concerned, accounts for only about 1% of public sector food procurement.

Food Chain

1.9: UK food and drink manufacturing gross value added by product type in 2008[9]



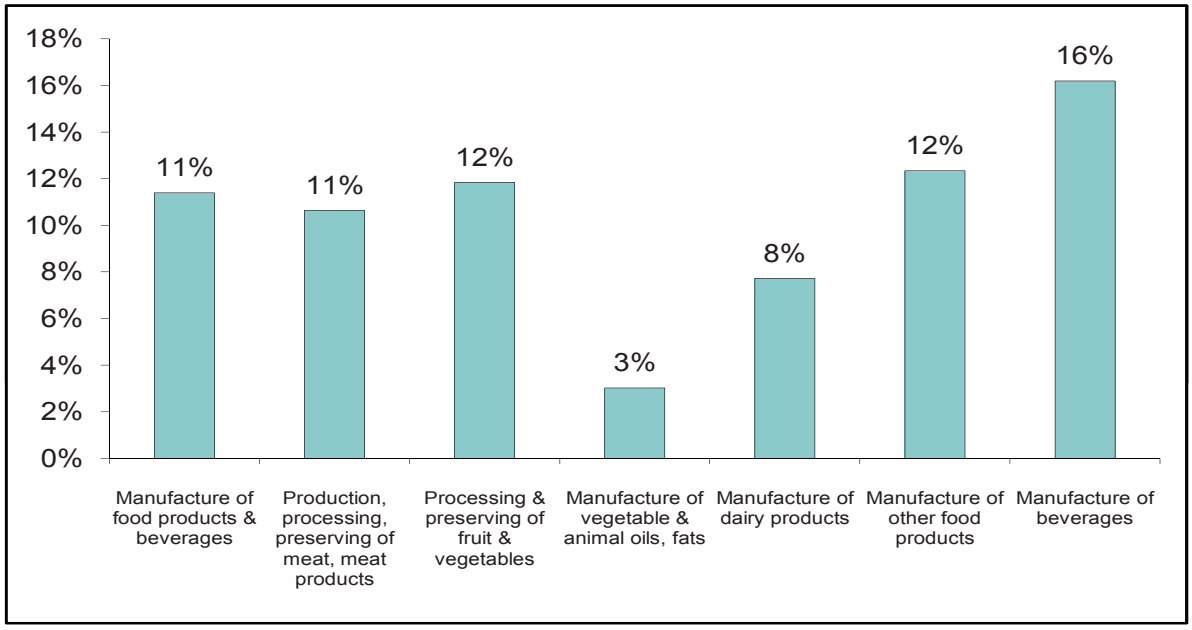
Source: Annual Business Inquiry (ONS)

- Bread, biscuits and cakes is the largest manufacturing group with a GVA of £3.8 billion in 2008, equivalent to 20% of total food and drink manufacturing GVA.
- Alcoholic beverages accounted for 16% of food and drink manufacturing GVA in 2008, an increase of 15% on 2007.
- Meat processing accounted for 13% and confectionery for 12% of food and drink manufacturing GVA in 2008.
- Overall the GVA for food and drink manufacturing has increased by 19% between 2000 and 2008.
- Grain milling and starch, and confectionery have had the largest increases in GVA since 2000, increasing by 81% and 51% respectively.
- The GVAs of meat processing and soft drinks and mineral waters have decreased by 14% and 5.1% respectively since 2000, the only categories to experience a fall.

[9] For disclosure reasons some small contributions (less than 4% overall) to food and drink manufacturing GVA have been treated as zeros.

Food Chain

1.10: UK share of EU food manufacturing



Source: Eurostat

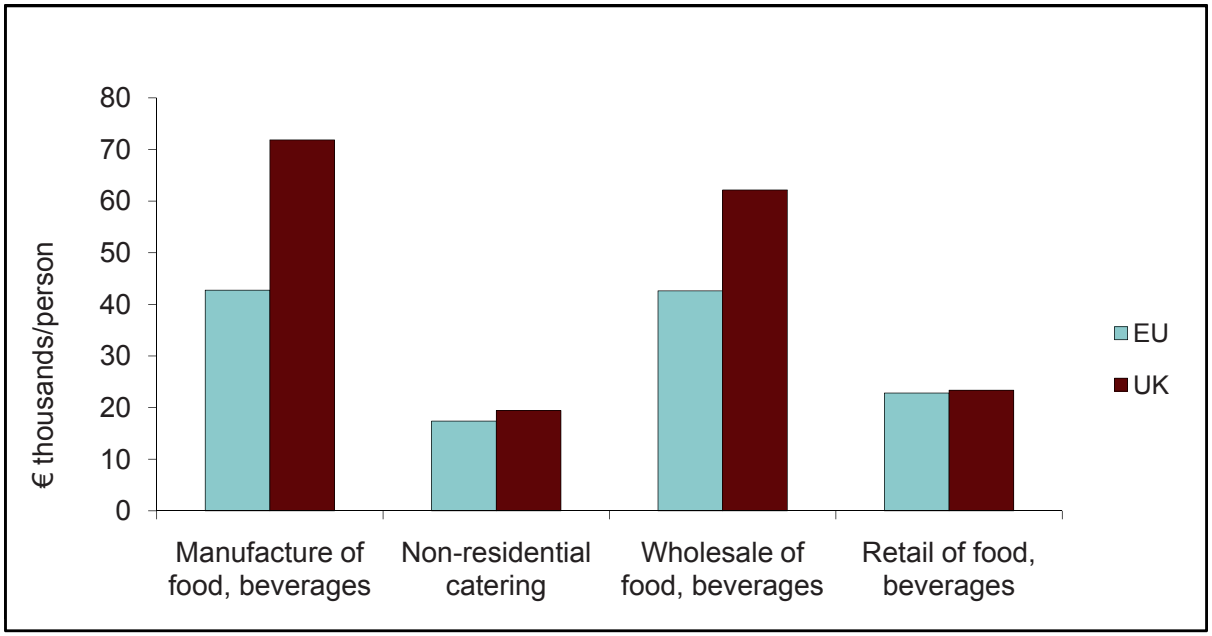
- The UK accounted for 11% of the manufacture of food products and beverages in the EU in 2007, as measured by turnover. The UK industry share was larger for beverages and smaller for oils and fats and dairy. The UK accounted for 16% of EU value added and 9.4% of those employed (including working proprietors).

- For non-residential catering the UK accounted for over 20% of turnover, value added and employed (including working proprietors) across the EU in 2007.

- For retail outlets with food beverage and tobacco predominating, the UK accounted for 18% of turnover across the EU in 2007, and 19% of value added and employed (including working proprietors).

Food Chain

1.11: UK and EU productivity, gross value added per person[10], 2007



Source: Eurostat

- Labour productivity in the food and drink sector was higher in the UK than over the EU as a whole in 2007, as measured by gross value added at factor cost per person employed (including working proprietors).

- Labour productivity in the manufacture of food and beverages was about 70% higher in the UK than the EU in 2007.

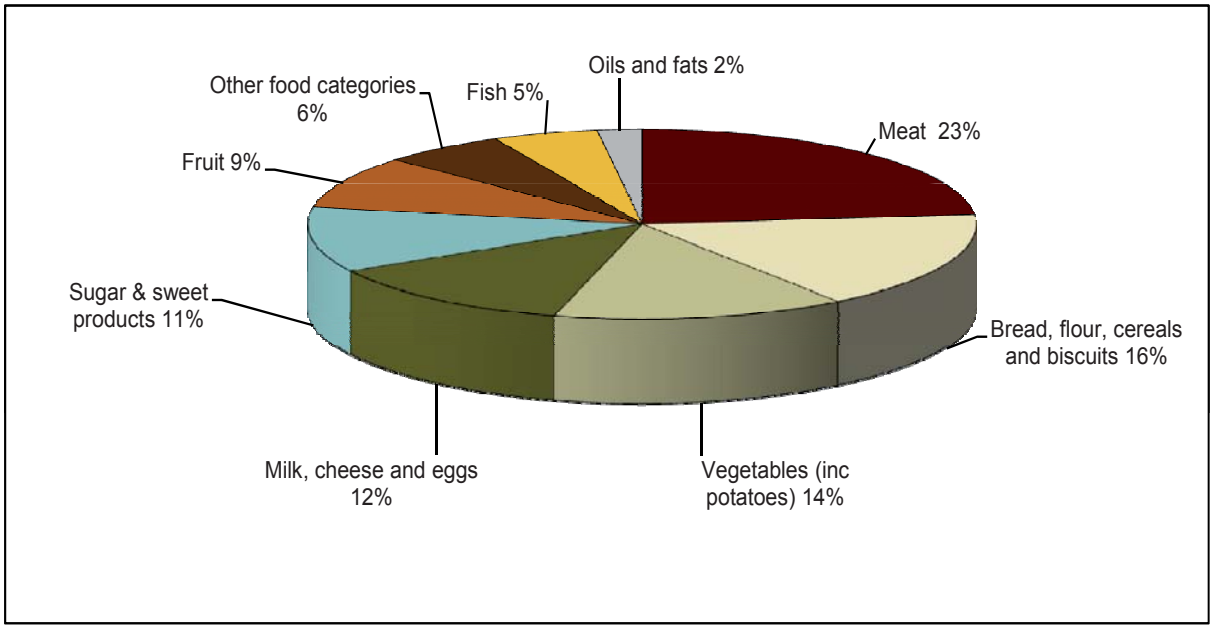
- Labour productivity in the manufacture of food and beverages was about 40% higher in the UK than in France in 2003.

- Productivity of purchases (measured by value of turnover / value of purchases) was higher in the UK than the EU in 2007 in manufacture, non-residential catering, wholesale and retail of food and drink.

[10] This measure of productivity is affected by exchange rates; a weakening of sterling against the euro as seen in 2008 and 2009 will reduce UK productivity compared to EU productivity.

Chapter 2: Prices & Expenditure

2.1: UK consumer expenditure on different types of food and drinks for the household



Source: Living Costs and Food Survey (LCFS), 2008 (Defra/ONS)

- UK household consumers spent £31.17 per person per week on all food and non-alcoholic drink in 2008, with a further £5.66 per person on alcoholic drinks.

- In 2008 UK household consumers spent 23% of their shopping bill on meat at an average of £5.28 per person per week out of a total weekly food shopping spend of £23.00. They spent another 23% on fruit and vegetables, and 11% on sugar and sweet products at £5.21 and £2.49 per person per week respectively.

- UK household consumers spent £11.20 per person per week on food and drink eaten out in 2008, of which £3.04 was spent on alcoholic drinks. Excluding alcoholic drinks, this is 21% of their total food spend but gave them only 10% of their calorie intake.

- The percentage spent on eating out has remained around the same since 2001-02 at 21% but the amount of food eaten out has fallen by a fifth (measured in calories).

Prices & Expenditure

2.2: UK trend in food prices in real terms, January 1998 to July 2010[1]

Source: Retail Price Indices (ONS)

- Healthy foods often cost more per calorie. Brown bread is more expensive than white bread. Fresh meat is more expensive than processed meat. The retail price of food provides the first indication of changes in affordability of a healthy diet.

- Food prices declined in real terms by around 12% between 1998 and mid-2007, but then rose rapidly to a peak in February 2009 which was higher in real terms than prices in January 1998.

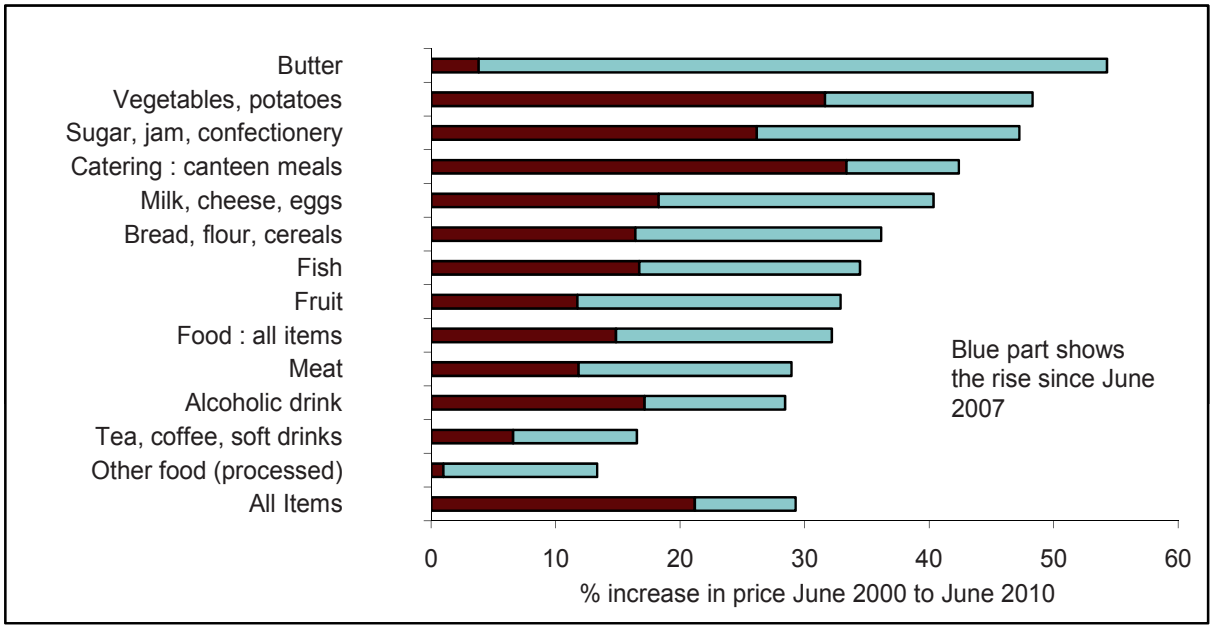
- Since this peak in February 2009 food prices have been relatively stable and not rising with general inflation; by July 2010 in real terms food prices had fallen by 3.1%.

- Since mid-2007 prices of all foods have risen substantially. The prices in July 2010 were substantially higher for eggs 46%, butter 43%, pork 36%, cheese 27%, milk 26%, beef 23%, bread 22% and poultry 17%.

[1] Excludes alcoholic drinks and catering.

Prices & Expenditure

2.3: UK retail price changes between 2000 and 2010, by food group

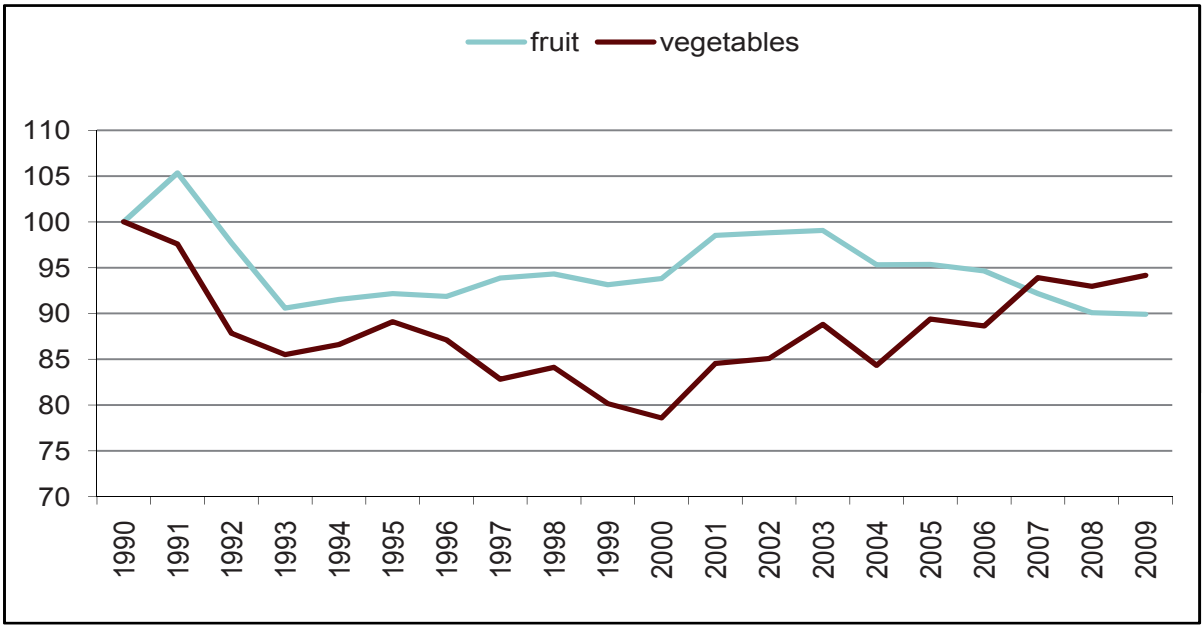


Source: Retail Price Indices (ONS)

- The all items RPI is a benchmark for gauging real changes in food prices. It rose by 31% over the last ten years with an 8.1% rise in the last three years to June 2010.
- Alcoholic drinks and meat have risen by the same amount as general inflation over the last ten years to June 2010.
- The food categories 'tea, coffee and soft drinks' and 'other food (processed)' rose by less than general inflation over the last ten years to June 2010.
- Butter prices rose by 56% over the ten years to June 2010 with almost all the rise coming in the last three years.
- Butter, milk, cheese, eggs, fruit and bread have had the largest rises in price in the last three years.
- Catering prices are 45% higher than 10 years ago with a 9.0% rise in the last three years.

Prices & Expenditure

2.4: Index of fruit and vegetable prices relative to food



Source: Retail Price Indices (ONS)

- Trends in fruit and vegetable prices relative to overall food prices provide a partial indicator of the changing affordability of an essential element of a nutritious and varied diet, which is particularly important for poorer households.

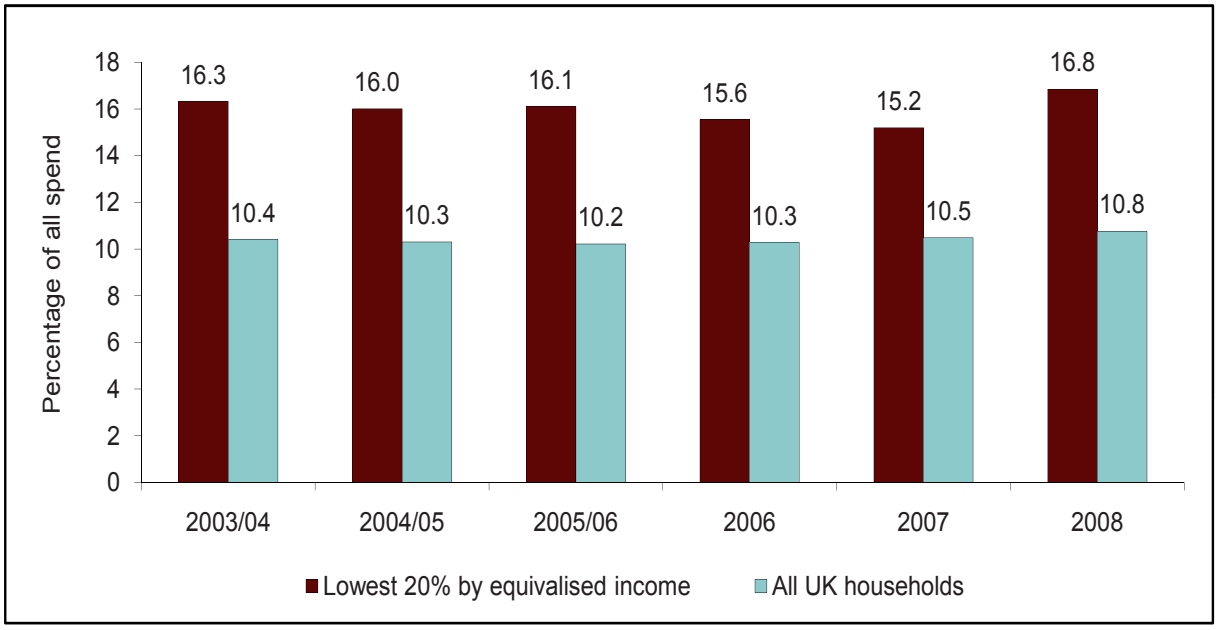
- Between 1990 and 2000 vegetables became over 20% cheaper relative to other foods and, despite the recent rises, are still relatively cheaper (particularly fresh vegetables) than in 1990.

- Since 2003 fruit prices have been declining relative to all food prices and continued to fall relatively during 2008 and 2009 when food prices rose substantially.

- Since 1990 the price of fruit and the price of vegetables have not risen as much as food prices overall. Fruit prices (fresh and processed) are 10% lower and vegetable prices (fresh and processed) are 6% lower.

Prices & Expenditure

2.5: Trend in UK consumer spending on food and drinks in low income and all households, 2003-04 to 2008



Source: Living Costs and Food Survey (LCFS), Family Spending, table 3.2E (ONS).

- The relative affordability of food can be monitored by the share of total consumer spending that goes on household food purchases.

- On average food accounted for 10.8% of all household expenditure in 2008, slightly higher than in 2007 indicating that food is exerting greater pressure on the household budget.

- Expenditure on food in low income households was in decline until 2007 when it reached a low point of 15.2% of all household expenditure; however this was reversed in 2008 when the percentage increased to 16.8% in the face of food price rises.

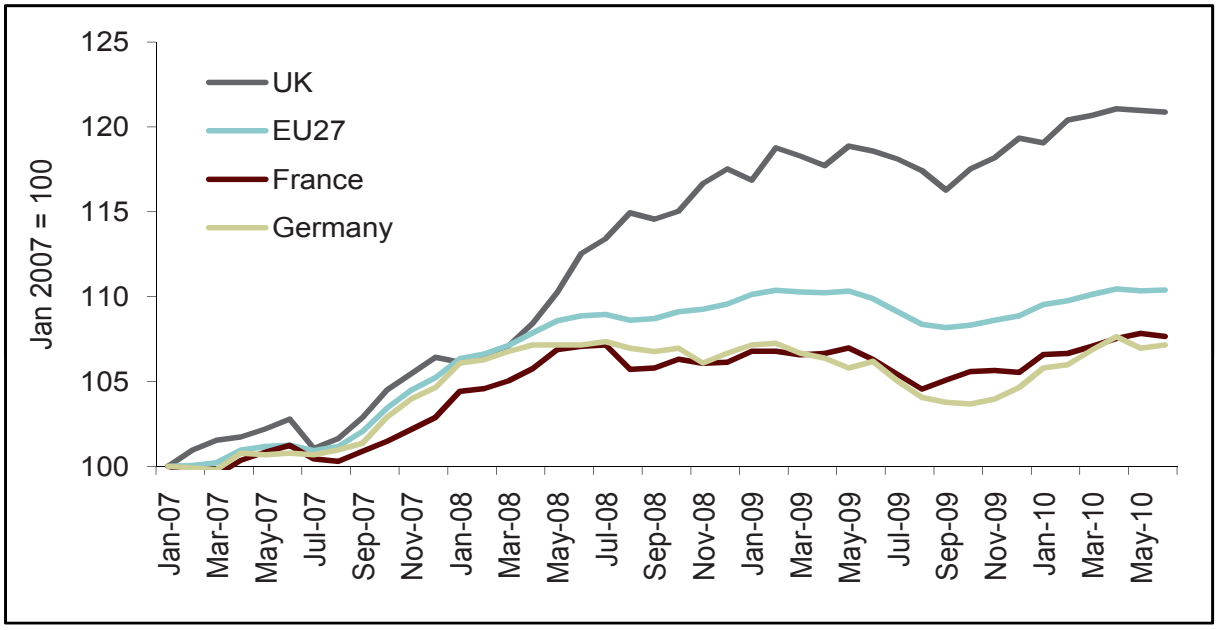
- Since 1998 the average income of low income households has risen by 17.5%[2] while food prices have risen by 25%.

- Only Netherlands and Sweden have a lower percentage of spend for their low income households going on food than the UK.

[2] Households Below Average Income (HBAI), Department for Work & Pensions (DWP).

Prices & Expenditure

2.6: Price rises in the UK compared to other EU countries



Source: Eurostat

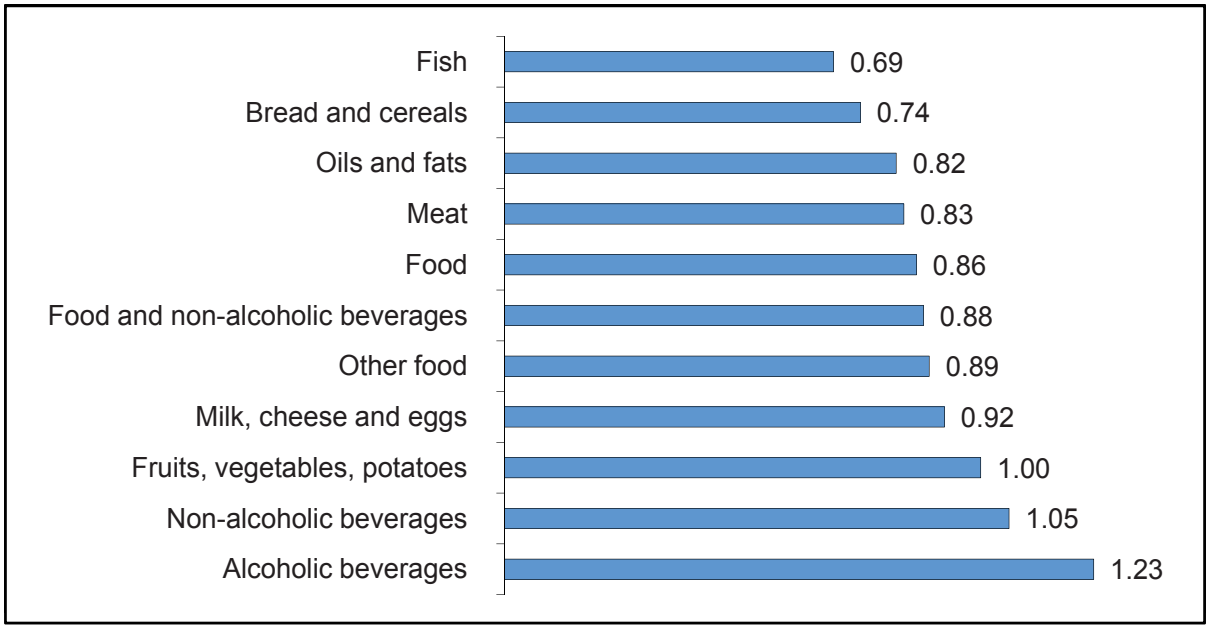
- Food and non-alcoholic drink prices have risen by more in the UK since June 2007 than in the rest of the EU. By June 2010 UK prices had risen by double the rise in the EU overall, 2.9 times as much as in Germany and 2.7 times as much as the rise in France.

- The exchange rate between sterling and the euro is a factor. Sterling weakened against the euro from September 2007 reaching a low point at the end of 2008 at just over 1 euro per pound. On average sterling was 14% weaker in 2008 and 23% weaker in 2009 compared to 2007.

- In 2009 UK food prices rose by 2.1% while dropping in the rest of the EU. In the first half of 2010 food prices rose in the UK by 1.5%, slightly more than in France and Germany.

Prices & Expenditure

2.7: Food prices in the UK compared to France in 2009



Source: Eurostat

- Purchasing power parities compare prices in different countries after removing the effects of exchange rate differences.

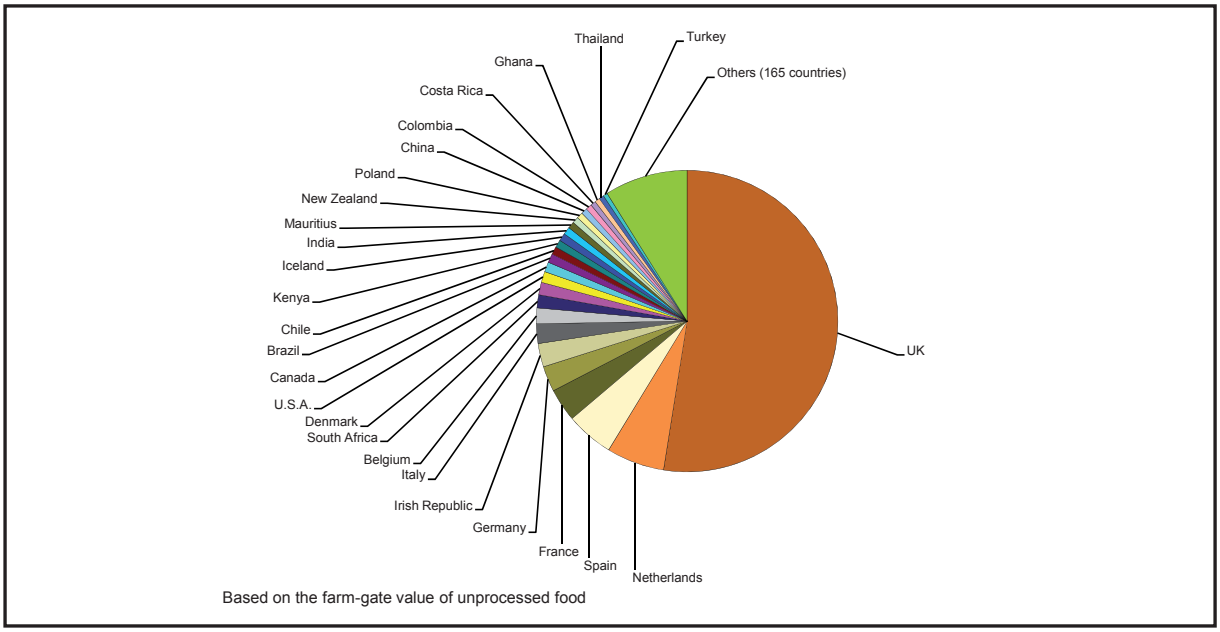
- Based on purchasing power parities food was 12% cheaper in the UK than in France in 2009. Of all food and non-alcoholic beverages only the non-alcoholic beverages were more expensive in the UK.

- Fish was particularly cheap in the UK in 2009 compared to other countries. It costs 25% less than in the rest of the EU as a whole and 31% less than in France.

- The prices of fruit and vegetables including potatoes in the UK were 17% above the EU average in 2009 and at about the same level as in France.

Chapter 3: Global & UK Supply

3.1: Origins of food consumed in the UK, 2008



Source: Defra analysis of HMRC overseas trade statistics

- Sourcing food from a diverse range of stable supplying countries, in addition to domestically, enhances food security[1].

- In 2008, 24 countries together accounted for 90% of UK food supply, down from 25 countries in 2007.

- Just over half of this was supplied domestically from within the UK (52%).

- After the UK, the leading suppliers were the Netherlands (6.2%), Spain (5.1%), France (3.5%), Germany (2.7%), and Ireland (2.5%), all of whom are members of the EU and close trading partners.

- In 2008 the UK and five other European countries accounted for around 73% of total UK food supply.

- The distribution of UK imports at continental level has changed relatively little over the last 15 years.

[1]UK Food Security Assessment, January 2010 (Defra).

Global & UK Supply

3.1: Origins of food consumed in the UK, 2008 (continued)

- Supply diversity differs across sectors. Although 24 countries (including the UK) accounted for 90% of supply of all food valued on a raw food basis in 2008:

  - 24 accounted for 90% of fruit and vegetable supply (UK supplied 23%),
  - 4 accounted for 90% of meat and meat preparation supply,
  - 3 accounted for 90% of dairy product and bird's egg supply (UK supplied 83%),
  - 9 accounted for 90% of supply of cereals and cereal preparations (including rice).

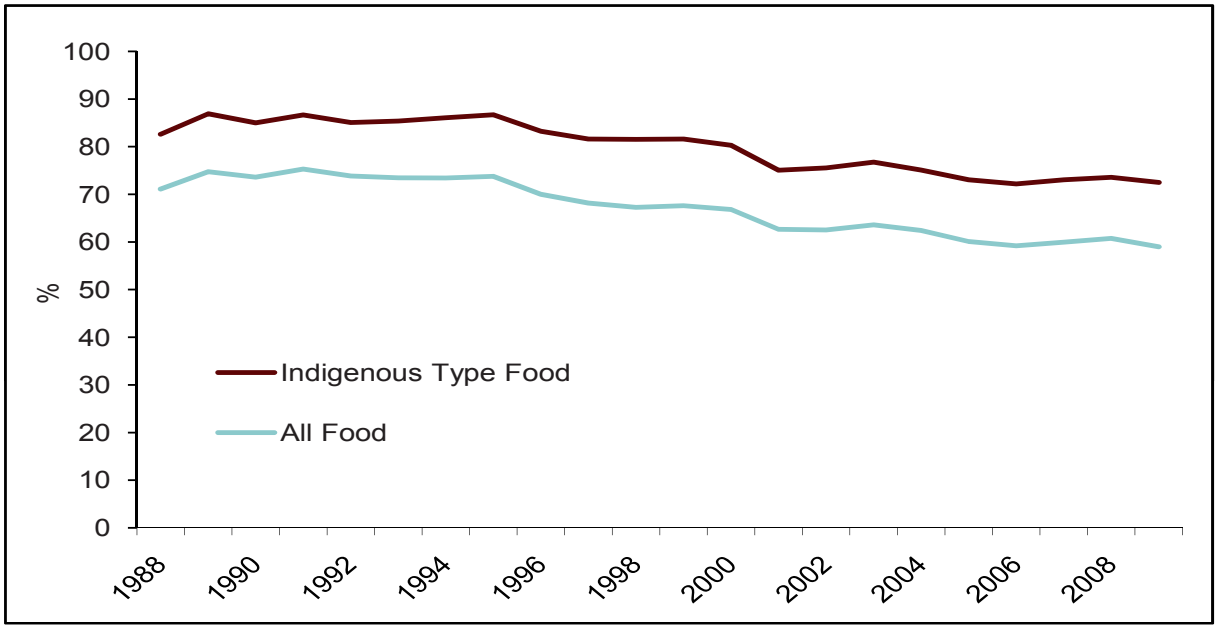
- The value of imports in 2008 was £31.6 billion compared to £13.2 billion for exports, giving a trade gap of £18.4 billion.

- From 2007 to 2008 imports increased by 14.2% in real terms and exports increased by 12%, though were lower in real terms than 1995 levels.

- Since 1995 the UK trade gap in food, feed and drink has more than doubled, reflecting changes in competitiveness and consumer taste. In particular, the impact of BSE, stronger sterling and foot and mouth disease were key factors limiting exports in the period after 1995.

Global & UK Supply

3.2: Trends in UK self-sufficiency, 1988-2009[2]



Source: Defra

- "Self-sufficiency" is calculated as the farm-gate value of UK raw food production (including for export) divided by the value of raw food for UK consumption. It is a measure of UK agriculture's competitiveness rather than food security, which is a more complex issue[3].

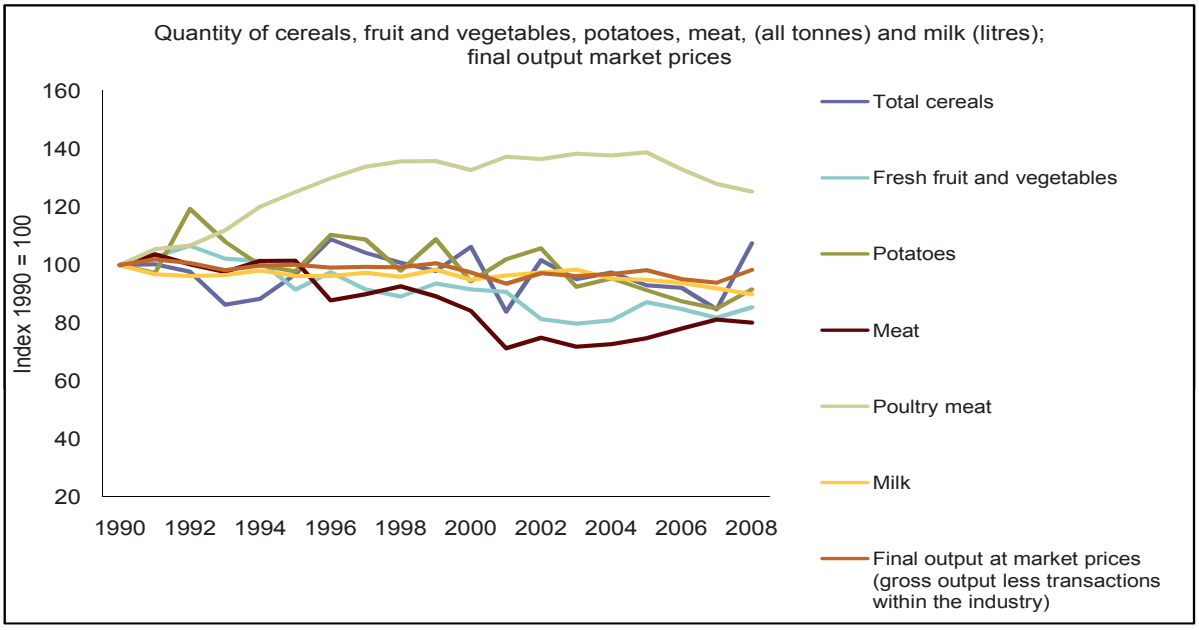
- "Self-sufficiency" was 59% in all food and 72% in indigenous type food in 2009. This is broadly similar to levels in the early 1970s, and significantly higher than in the 1950s, when it was less that 50% for all food.

- UK "self-sufficiency" peaked in the 1980s reflecting strong price support through the Common Agricultural Policy. Since 1995 "self-sufficiency" in all food has decreased by 15 percentage points, shaped by CAP reform, changing consumer trends, stronger sterling, the impact of outbreaks of disease and the beef export ban introduced in 1996. It increased by 1 percentage point in 2008 due to the increased value of domestically produced milk, meat, oilseed and cereals which has outweighed a widening of the trade gap in food.

[2] 2009 estimates are provisional.
[3] UK Food Security Assessment, January 2010 (Defra).

Global & UK Supply

3.3: Trends in UK food production & final output at market prices



Source: Defra

- UK agriculture contributes to food security through its contribution to global supply, particularly in cereals.

- Final output of UK agriculture, which can be used as a proxy for UK food production, is 2% below 1990 levels.

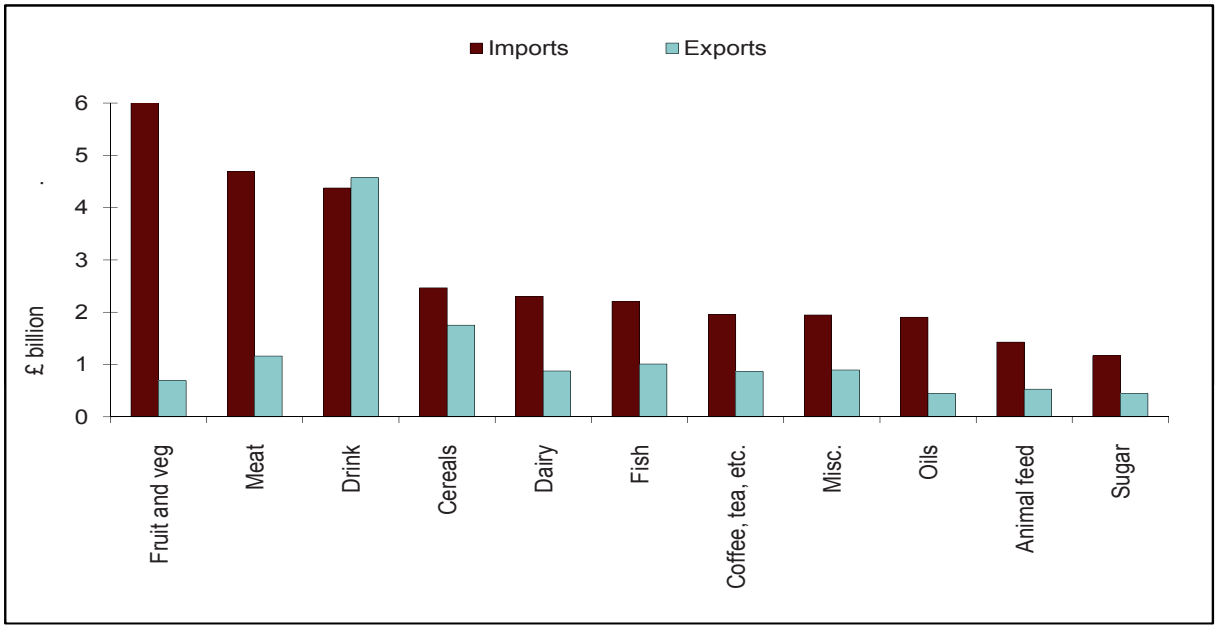
- Total UK cereal production has shown variation across the years. Significant production dips in 2001 and 2007 can be linked to adverse weather conditions. The area of cereals planted increased by 14% in 2008 and yields also increased, resulting in an increase in overall production of 27%.

- Since 1990 there have been large overall increases in production levels of poultry meat, although they have dipped slightly since 2005. This is part of a longer term upward trend since the late 1970's.

- Red meat production showed a downward trend through much of the 1990's, driven by a combination of factors including the beef export ban. Since 2002 there has been a slight upward movement but levels still remain lower than those in the early 1990's.

Global & UK Supply

3.4: UK trade in different food groups, 2008



Source: Defra analysis of HMRC overseas trade statistics

- The value of imports is greater than the value of exports in each of the eleven broad categories of food, feed and drink except 'Drink' which had a trade surplus of £0.2 billion in 2008.

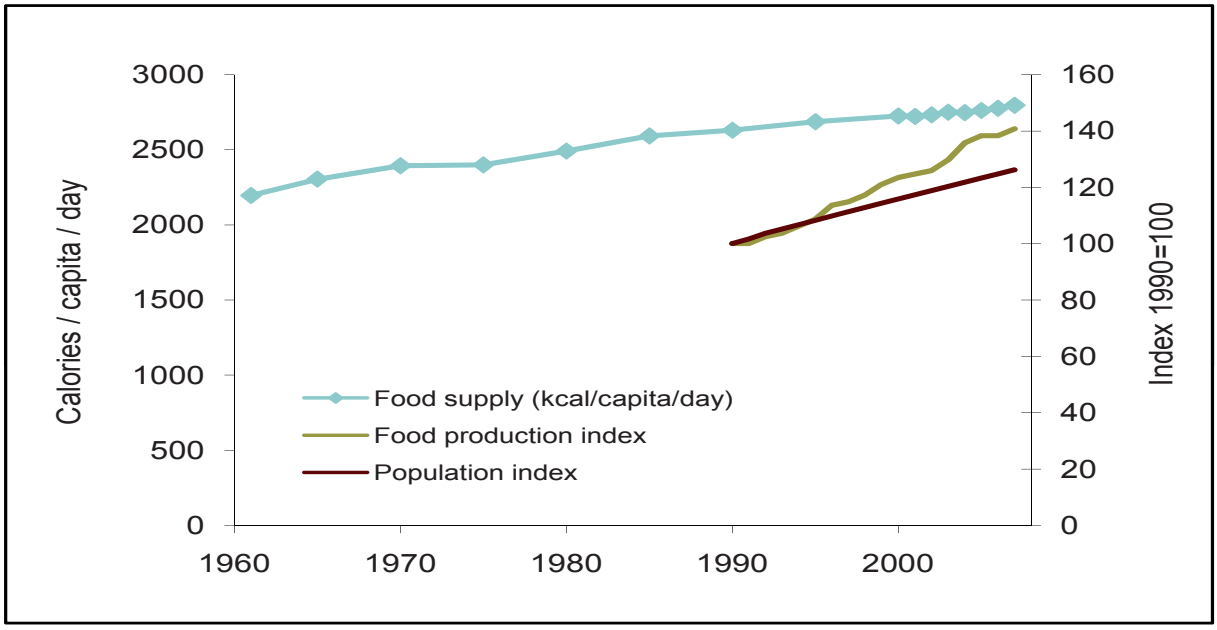
- The group for which the UK has the largest trade deficit is fruit and vegetables. In 2008 the value of imports was £7.2 billion against the value of exports of £0.7 billion giving a trade gap of £6.5 billion.

- The second largest groups in terms of imports in 2008 were meat and drink with imports of £4.7 and £4.4 billion respectively.

- Drinks are the largest export category by far with a total export value of £4.6 billion in 2008, of which around 70% is Scottish whisky. Cereals and meat are the groups with the next largest export values with £1.8 billion and £1.2 billion respectively.

Global & UK Supply

3.5: Trend in world food production per capita to 2007



Source: FAO[4] balance sheets & FAO production indices

- Global production of food relative to population is a fundamental indicator of global food security.

- Food production measured in calories/capita/day has increased steadily since 1961. Calorific production per person was 27% higher in 2007 than in 1961. Growth in the productive potential of global agriculture has so far been more than sufficient to meet the growth in effective demand.

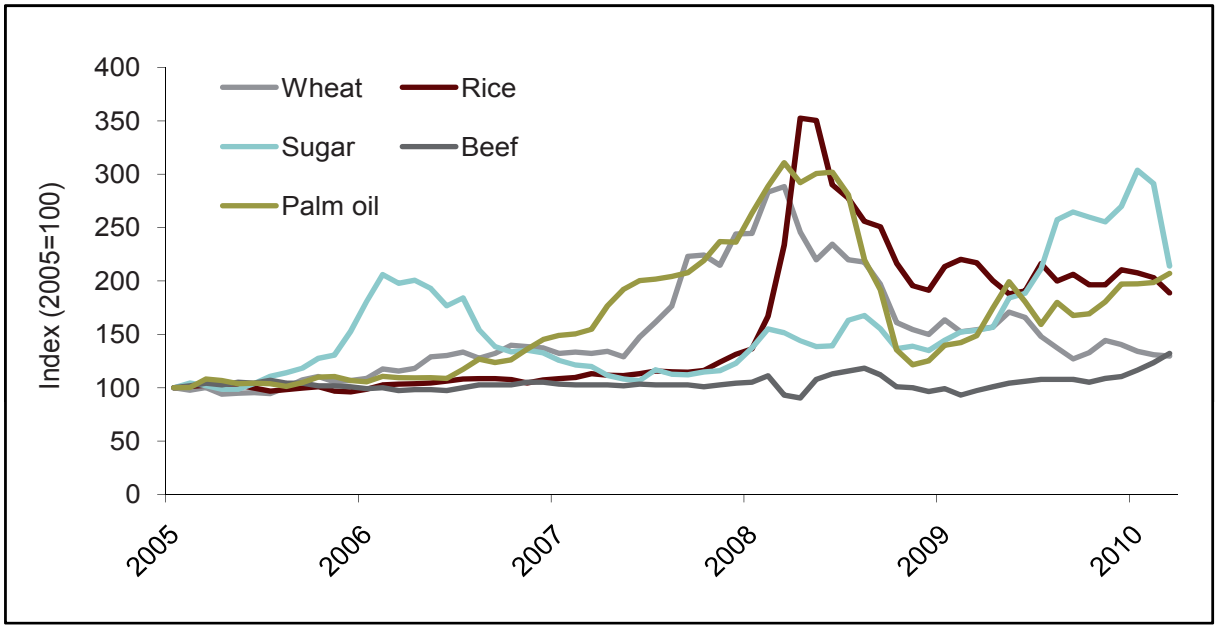
- World population is currently growing 1.0% per year, and was 26% higher in 2007 than in 1990. Food production is growing at a faster rate, and was 41% higher in 2007 than in 1990.

- According to the latest World Bank analysis, global food demand should grow less rapidly over the next 25 years with weaker population growth. The potential for further increases in food production appear to be substantial. Africa alone has 23% of the world's agricultural area but produces only 7% of the world's cereal production (FAO statistics).

[4] Food and Agricultural Organisation of the United Nations (FAO).

Global & UK Supply

3.6: World agricultural commodity prices to March 2010



Source: United Nations Conference on Trade & Development (UNCTAD)

- In 2007 and early 2008 some commodity prices (e.g. wheat and palm oil) increased sharply followed by sharp falls in the second half of 2008. Even at their 2008 peak, prices in real terms stayed well below their peaks in the 1970s.

- There was considerable price volatility on the global cereals market in August and September 2010 as news on the global harvest emerged. This was exacerbated by a ban on grain exports from Russia. However, as yet there is no indication of a global shortage of wheat.

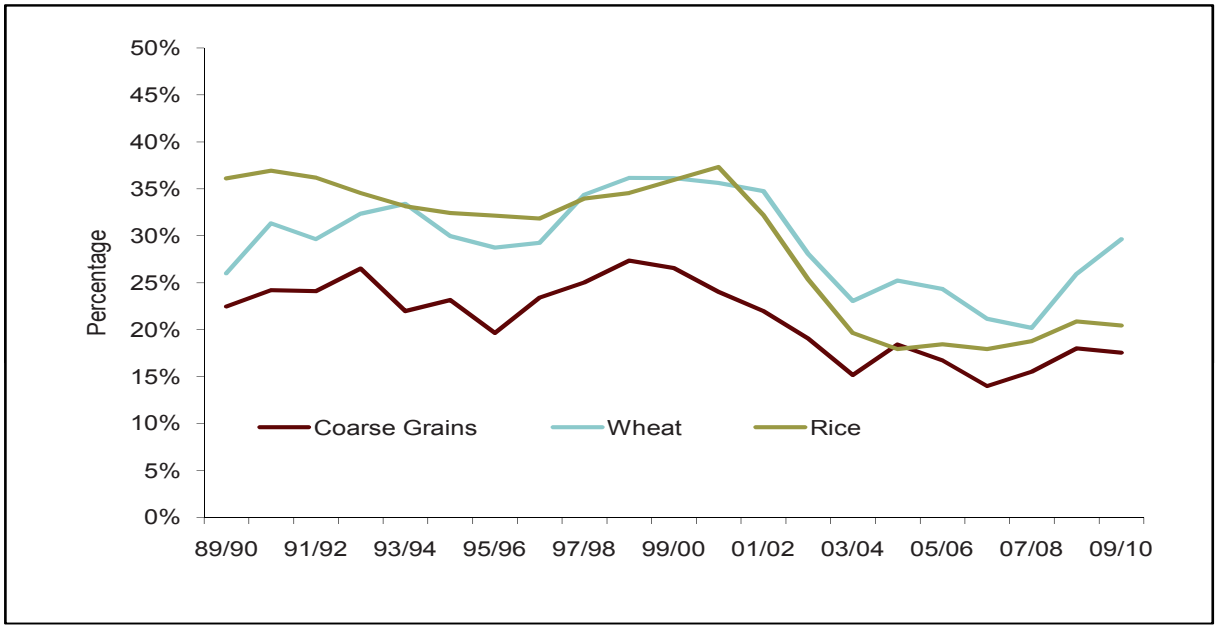
- Sugar prices more than doubled during 2008 and 2009. In early 2010 the price partly fell back. At the end of 2009, rice and palm oil prices remained significantly above the average price over the last two decades.

- The global economic slowdown following the food price hike in 2006-08 resulted in 100 million more people being deprived of adequate food in 2009. There have been marked increases in hunger in all major regions, with more than 1 billion people now estimated to be undernourished[5].

[5] FAO's hunger report: The State of Food Insecurity in the World (2009).

Global & UK Supply

3.7: World grains stocks to consumption ratio to 2009-10



Source: International Grains Council (IGC), United States Department of Agriculture (USDA)

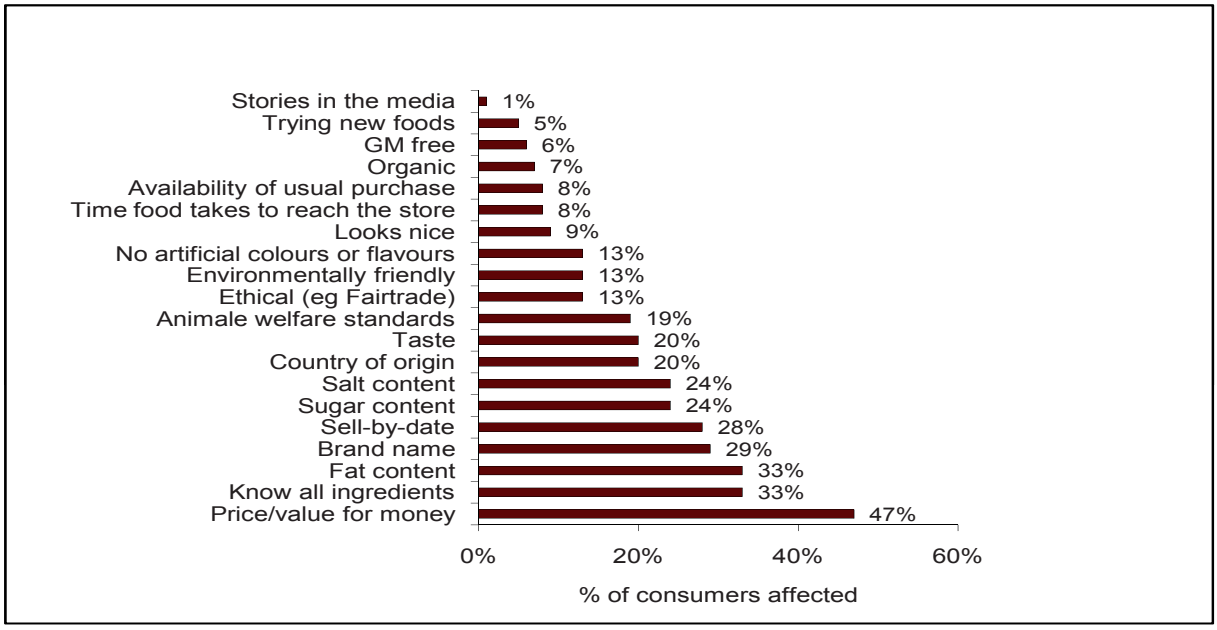
- Global cereal stocks have been significantly lower since the mid 2000s than in the previous two decades. This is largely due to the reduction in stocks in China.

- With low stocks, markets become sensitive to further supply shortfalls, which magnifies the price response.

- The record global harvest in the marketing year 2008-09 has increased grain stocks, particularly wheat. In 2009-10 the wheat stocks to consumption ratio increased to the highest level since 2002-03. Rice and coarse grains fell slightly over the same period.

Global & UK Supply

3.8: Factors influencing consumer product choice[6]



Source: IGD Shopper Trends 2010

- Price/value for money have become increasingly important in driving product choice over the last year, determining product choice for 47% (up from 36%) of shoppers.

- Nutritional content is widely influential on purchase decisions, particularly the level of fat within the food at 33% of shoppers, followed by the sugar and salt content, both at 24% of shoppers.

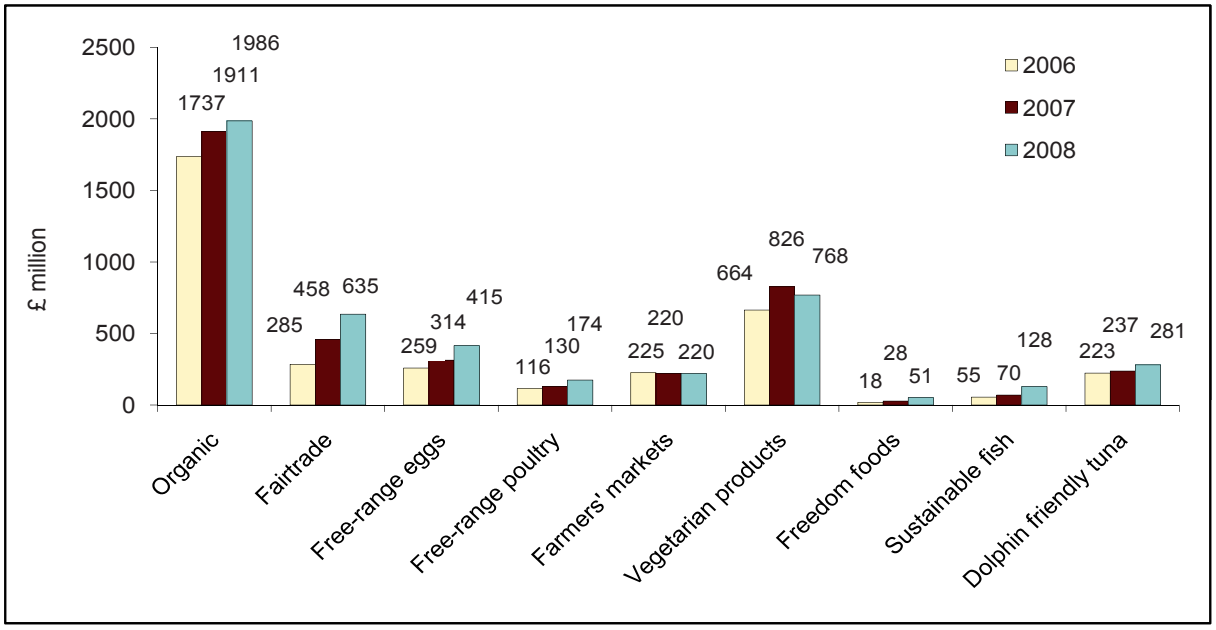
- The level of salt is increasingly influencing shoppers' choice of products, following the FSA's campaign in September 2009[7].

- Brand names still have significant sway in many purchase decisions, with shoppers over the age of 55 being the most likely to be influenced. The level of influence, however, has reduced over the last five years from 41% to 29%.

[6] IGD Shopper Trends 2010. Annual monitor of key trends affecting food and grocery shopping.
[7] Food Standards Agency ran a 4 week campaign including TV ads, press and online coverage highlighting 'surprising places' where salt can be found.

Global & UK Supply

3.9: UK trend in sales of ethical produce



Source: Ethical Consumerism Report 2009. The Co-operative Bank

- Sales in "ethical" food and drink, including organic, fair-trade, free range and freedom foods (an assurance scheme for high animal welfare standards) accounted for £5.0 billion in 2008[8], a 20% increase on 2007.

- Sales of fish from sustainable sources and freedom foods increased their sales by 83% and 82% respectively in 2008 compared to 2007.

- The rate of increase in organic sales had slowed to 4% between 2007 and 2008 although it still accounted for around one third of sales of all ethical food and drink. Latest data from the Soil Association[9] suggests that sales of organic produce fell in 2009 by around 13%.

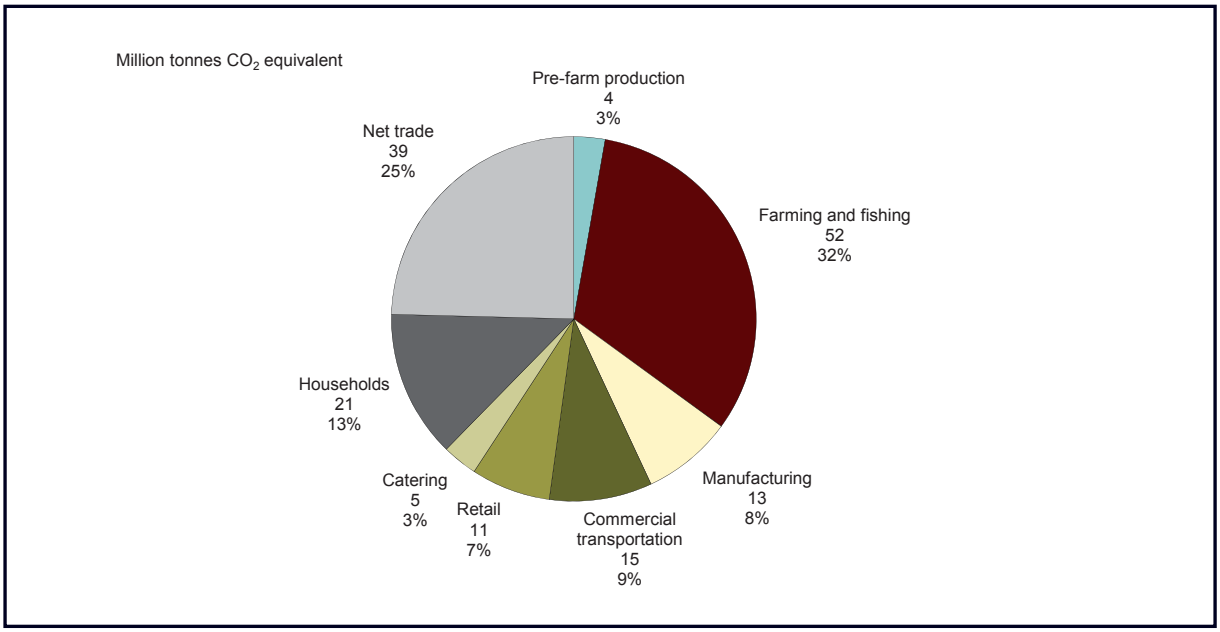
- Sales of vegetarian products fell slightly (7.0%) in 2008 although it is still the second largest sector after organic sales, accounting for around 15% of all ethical food and drink sales.

- Sales through farmers' markets remain virtually unchanged.

[8] Excludes food and drink boycotts.
[9] Organic Market Report 2010 – Soil Association

Chapter 4: Environment

4.1: Greenhouse gas (GHG) emissions from the UK food chain, 2007[1]



Source: Environment Statistics (Defra)

- Total GHG emissions from the food chain were estimated to be around 160 million tonnes of CO_2 equivalent in 2007. The external cost of greenhouse gas emissions from the UK food chain is estimated at £7.1 billion[2].

- In 2007 UK farming and fishing accounted for around a third of emissions from the food chain. Most of these emissions are due to enteric fermentation in ruminating animals and from the oxidisation of nitrogen in fertilisers.

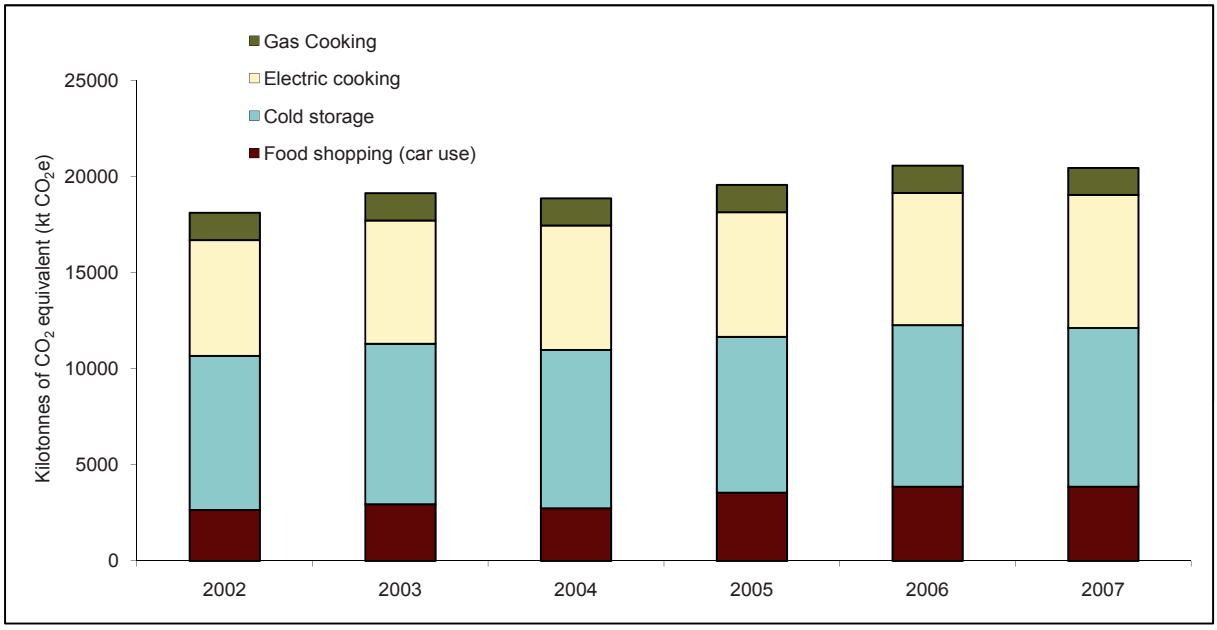
- Around 25% of GHG emissions in the UK food chain are attributed to net trade[3].

- Around 9% of GHG emissions in the UK food chain are attributed to commercial transportation of food for UK consumption. Estimates are for 2006 and due for update.

[1] GHG emissions from food packaging, food waste and land use change are not included. Manufacturing includes emissions from electricity use and excludes emissions from road freight transport. Household does not include emissions from heating water for washing up or dishwashers.
[2] 'A brief guide to the new carbon values and their use in economic appraisal', 2009 (DECC).
[3] Net trade covers emissions related to the production but not transportation of food imports, net of emissions related to the production of food exports.

Environment

4.2: Trends in food related greenhouse gas (GHG) emissions from UK households[4], 2002-2007



Source: Environment Statistics (Defra)

- GHG emissions by UK households from food shopping, storage and preparation rose by around 14% between 2002 and 2006, to 20,600 kt CO_2 but fell back slightly in 2007, largely due to a 2% reduction in emissions from cold storage.

- Emissions from electric cooking have increased between 2002 and 2007 to just above 6,900 kt CO_2. This is partly due to a modest increase in the consumption of electricity for cooking and partly because the production of electricity in the UK has become more carbon intensive.

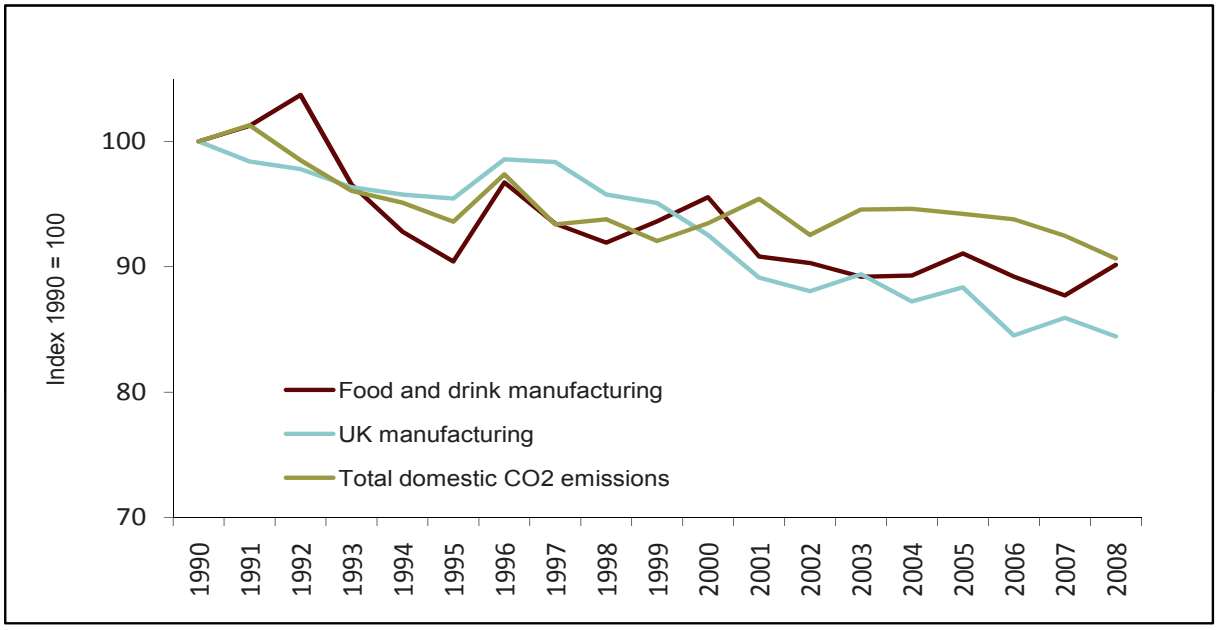
- Food related GHG emissions from UK households, as a proportion of all food related GHG emissions was 13% in 2007.

- WRAP estimate that 20 million tonnes CO_2 emissions could be saved by ending avoidable food waste, the equivalent of taking 1 in 4 cars off UK roads[5].

[4] Household does not include emissions from heating water for washing up or dishwashers.
[5] Household Food and Drink Waste in the UK, WRAP 2010. See Chapter 5 for more information.

Environment

4.3: Trend in CO_2 emissions from UK food and drink manufacturing, 1990-2008[6]



Source: Defra & Environmental Accounts (ONS)

- Since 1990 the food and drink manufacturing sector has cut CO_2 emissions by 9.8% to around 16.2 million tonnes in 2008, although this is a small increase on 2007. There has been a reduction of 19% in CO_2 emissions from its direct use of fossil fuels.

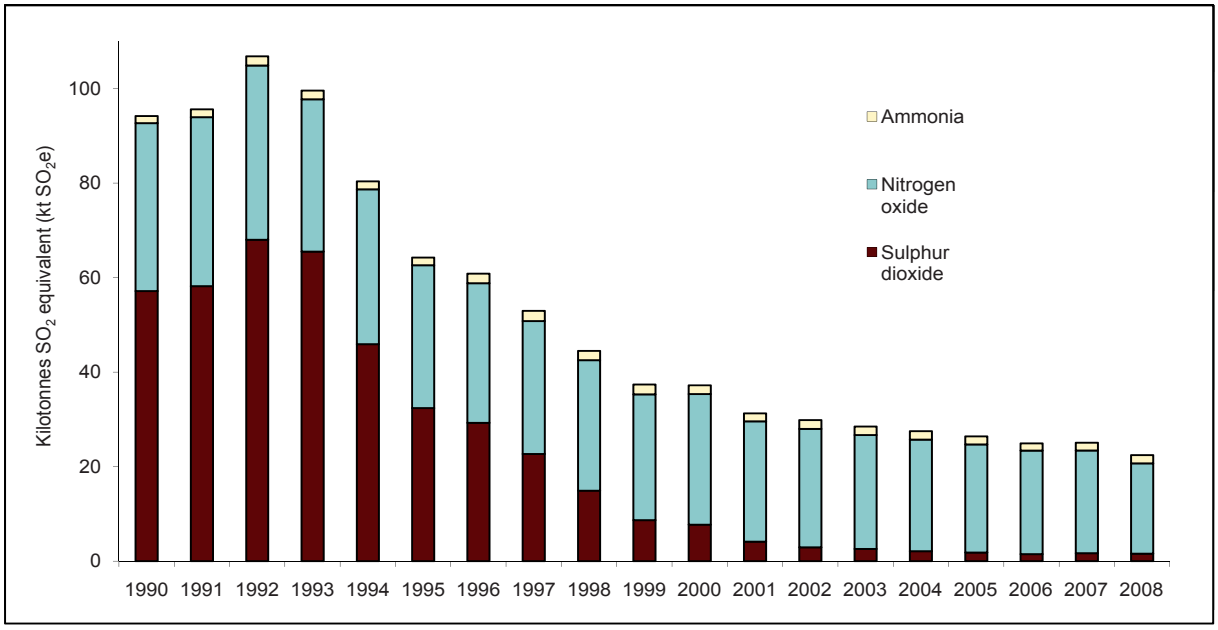
- Since 1990 the UK manufacturing sector has reduced its CO_2 emissions by 16% to around 161 million tonnes in 2008, with a reduction of 21% from its direct use of fossil fuels.

- Total UK domestic CO_2 emissions have declined by 11% to around 535 million tonnes in 2008.

[6] Manufacturing figures include the share of CO_2 emissions relating to electricity production using a constant emission factor. Total domestic CO_2 emissions include net emissions/removals from land use and land use change but with no allowance for EU Emission Trading Scheme purchases.

Environment

4.4: Trends in acid rain precursor emissions[7] from UK food and drink manufacturing[8] to 2008



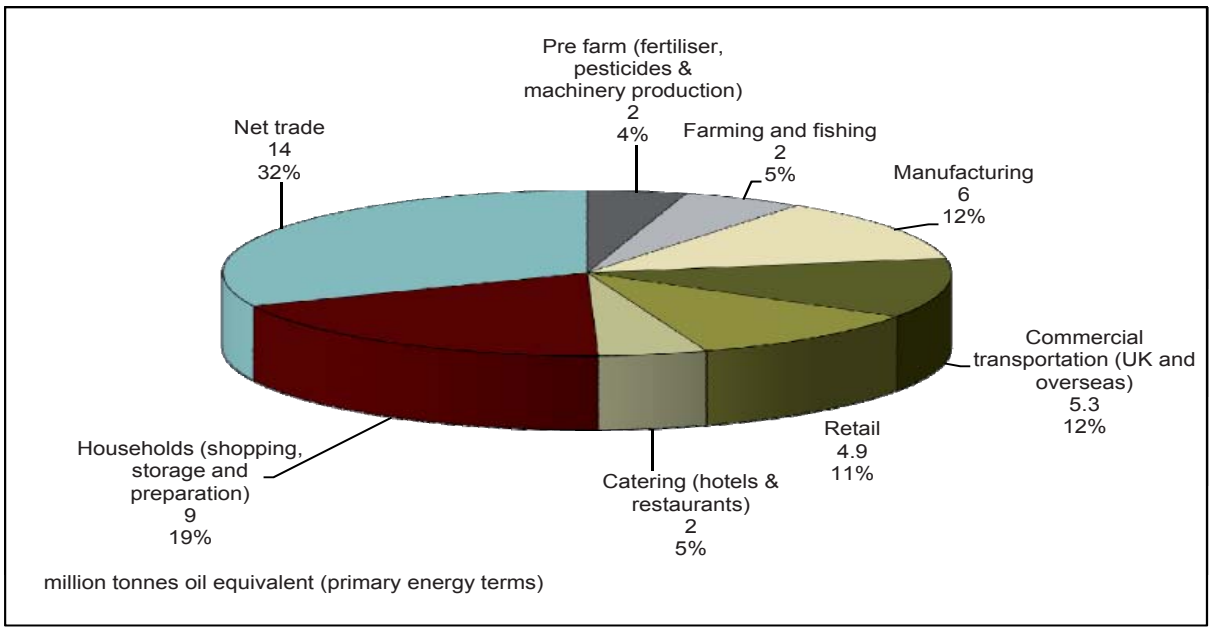
Source: Environmental Accounts (ONS)

- Acid rain precursor emissions include sulphur dioxide (SO_2), nitrogen oxides (NO_x) and ammonia (NH_3).
- Total acid rain precursor emissions from food and drink manufacturing have fallen by 76% since 1990 and 10% since 2007 to 22.45 kilotonnes of SO_2 equivalent (kt SO_2e) in 2008[9].
- In 2008 nitrogen oxides accounted for 85% of all acid rain precursor emissions from food and drink manufacturing. Ammonia and sulphur dioxide accounted for around 8% and 7% respectively.
- Ammonia is the only acid rain precursor to have seen an increase in emissions in both 2007 and 2008 and is 16% higher than in 2006.

[7] Emissions that cause acid rain.
[8] Includes road freight transport but excludes electricity use.
[9] The emissions are weighted together using their relative acidifying effects. The weights, given relative to SO_2, are 0.7 for NO_x and 1.9 for NH_3. This is a simplification of the chemistry involved and there are a number of factors which can affect the eventual deposition and effect of acid rain.

Environment

4.5: Energy use in the UK food chain, 2007[10]



Source: Environment Statistics (Defra)

- Total energy use by the UK food chain is estimated to have been around 45 million tonnes of oil equivalent in 2007, with farming and fishing accounting for 5.4% of this total, compared to around a third of greenhouse gas emissions[11].

- Total energy consumption in the UK food chain fell by 13% between 2006 and 2009 and is now 30% lower than in 1996.

- Since 2006, consumption of natural gas, electricity and petroleum decreased by 15%, 12% and 7.8% respectively.

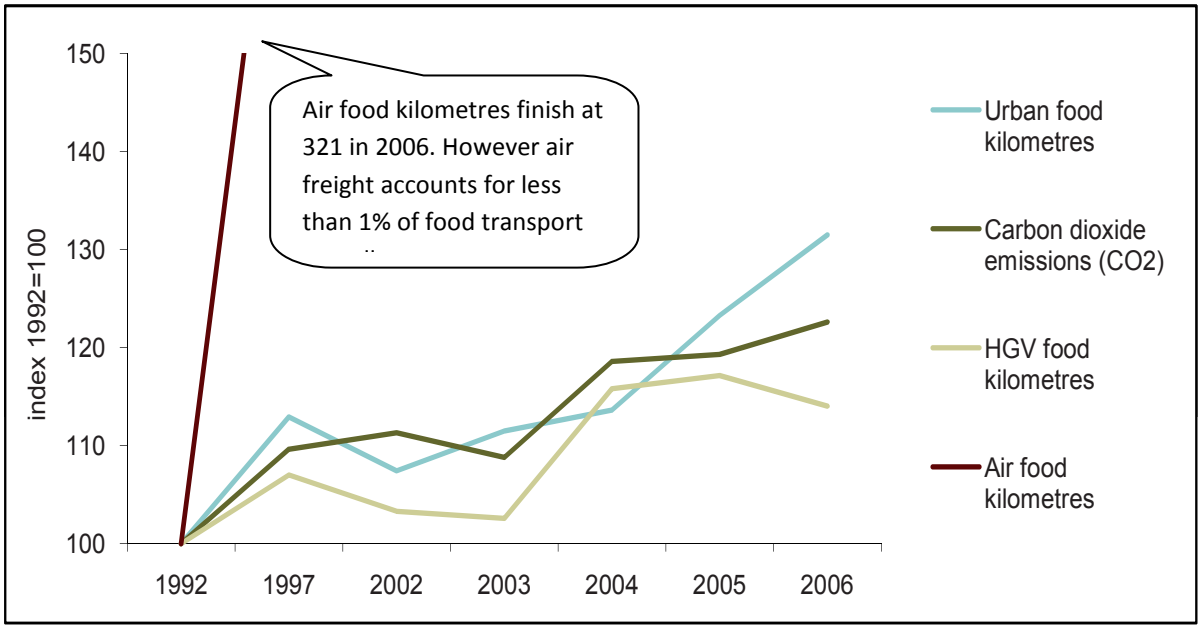
- Natural gas accounted for 59% of total energy consumption in food and drink manufacturing in 2009[12], followed by electricity (31%), petroleum (8.9%) and coal (1.2%).

- Energy consumption in food and drink manufacturing fell by 19% between 1996 and 2006 mainly due to a 55% reduction in petroleum and a 93% reduction in coal.

[10]Household does not include emissions from heating water for washing up or dishwashers. Primary energy is the energy used in electricity production, not the amount of electricity used.
[11] See 4.1.
[12] Digest of United Kingdom Energy Statistics (DECC). Data excludes energy used to generate heat for all fuels except manufactured solid fuels and electricity

Environment

4.6: Four indicators measuring the external impact of food transport for UK consumers to 2006[13]



Source : Food Transport Indicators to 2006 (Defra)

- The food transport indicators are due to be updated to 2008 in October 2010. Refer to on-line documents for the latest statistics.

- The indicators provide evidence of increasing urban congestion and increasing effects on climate change but not in damage to road infrastructure.

- Air food kilometres rose by 11% in 2006.

- UK urban food kilometres rose by 6.7% in 2006 driven by an 8.8% increase in UK car shopping. This follows a similar increase in urban food kilometres in 2005.

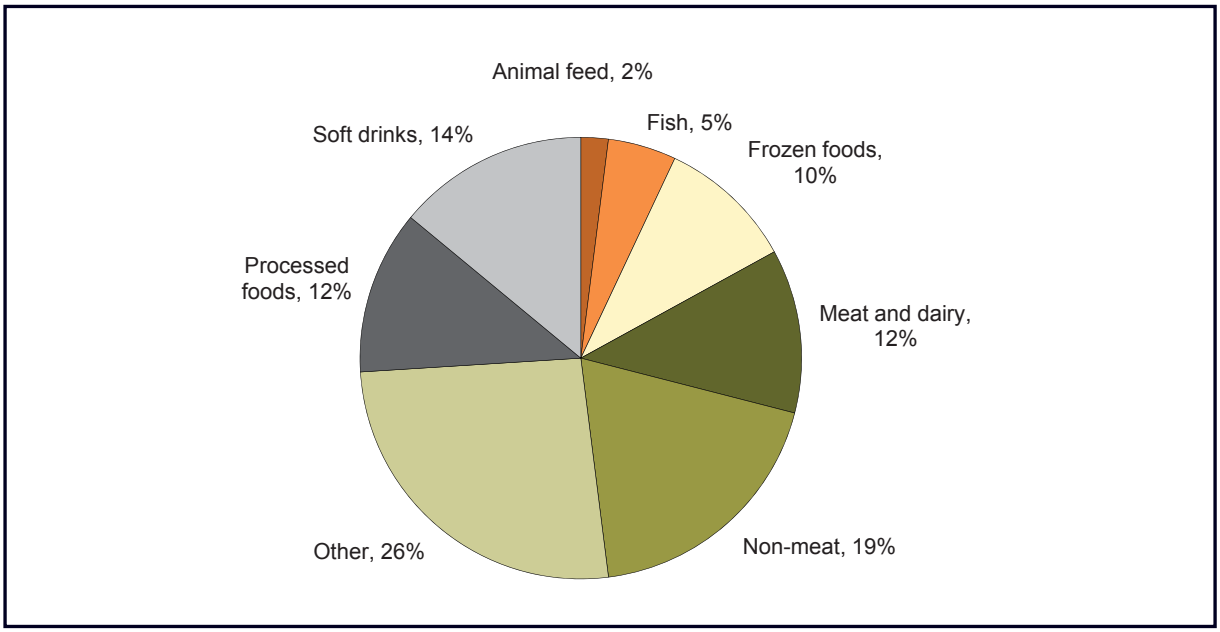
- HGV food kilometres, including both UK and overseas HGV transport of food for UK consumption, declined by 2.7% in 2006.

- CO_2 from transport of food for UK consumption increased by 2.8% in 2006 primarily due to the increase in car food shopping.

[13] Air, urban and HGV are measured in vehicle kilometres, carbon dioxide emissions are measured in tonnes.

Environment

4.7: Percentage of companies pledging to reduce on-site water usage



Source : Federation House Commitment, Progress report 2010 (WRAP)

- The Federation House Commitment (FHC) was launched in January 2008. Its aim is to help reduce the stress on the nation's water supplies and contribute to an industry-wide target to reduce water use[14] by 20% by 2020 against a 2007 baseline. It is open to all companies in the food and drink manufacturing sector.

- As of July 2010 FHC has 42 signatories, 43% of whom are from the 'processed food', 'non-meat' and 'meat and dairy' sectors.

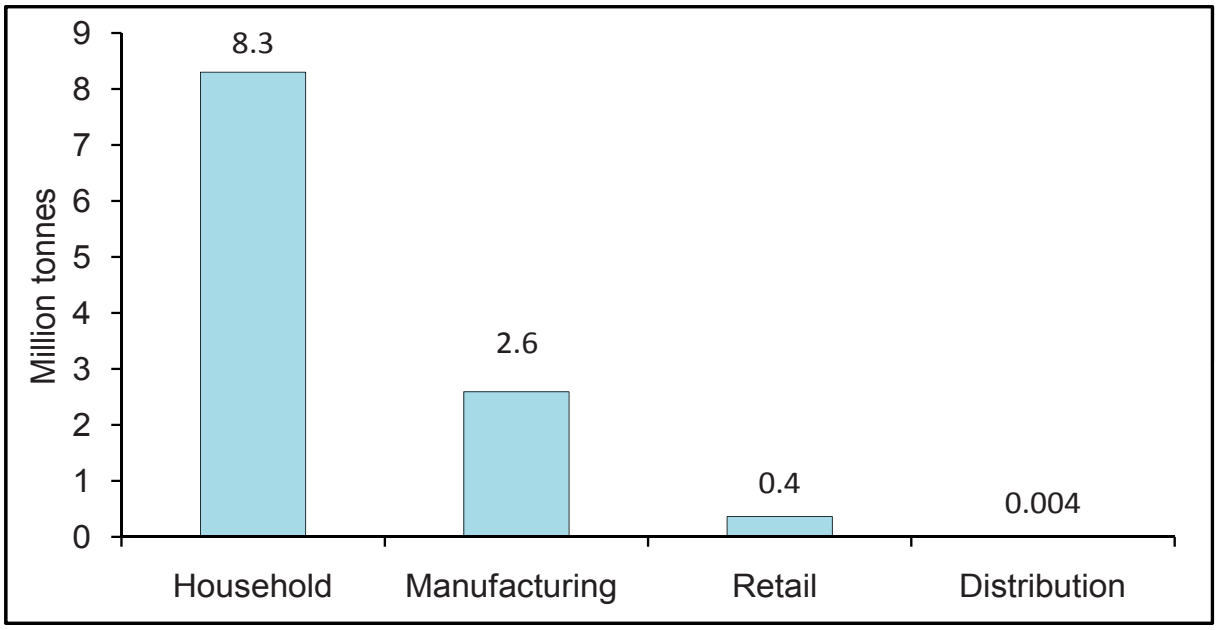
- Total water use (excluding that embedded in product) by FHC signatories in 2009 has reduced by 5.6%, equating to a saving of more than 2.06 million cubic metres, against the 2007 baseline.

- Water use per tonne of product by FHC signatories has decreased from 2.48m^3 to 2.24m^3, a reduction of 9.4% against the 2007 baseline.

[14] Excluding that embedded in products.

Chapter 5: Waste

5.1: Food and drink waste in the supply to UK households[1]



Source: WRAP Waste arisings in the supply of food and drink to households in the UK, March 2010

- UK households are the major contributor to food waste in the household supply chain, generating an estimated 8.3 million tonnes per year. Of this 5.3 million tonnes is avoidable – fit to be consumed at some stage before disposal. A further 1.5 million tonnes is defined as possibly avoidable and 1.5 million tonnes is unavoidable waste – not normally edible[2].

- Eating out accounts for 11% of food, measured by calories[3]. This food supply chain is not included in these figures.

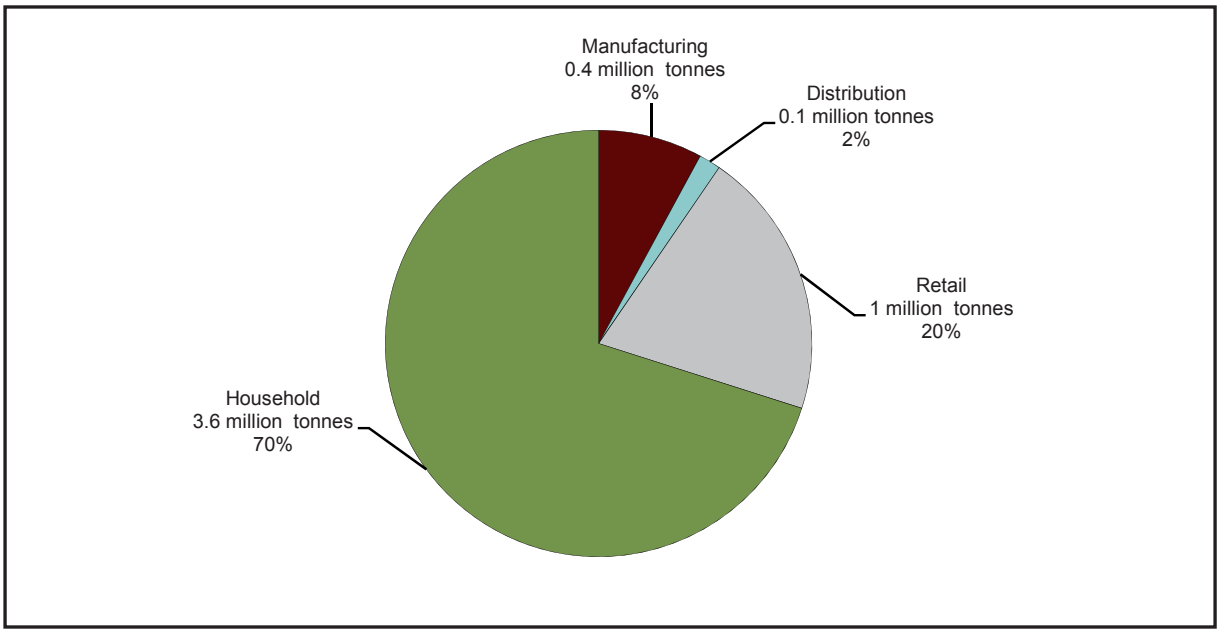
- The production, supply and disposal of 5.3 million tonnes of avoidable food waste produces greenhouse gases equivalent to around 20 million tonnes CO2 per year. Estimated annual emissions from the whole food chain are around 160 million tonnes of CO2 equivalent[4]. Each tonne of food produces around 4.2 tonnes of CO2 equivalent over its lifecycle including disposal of waste[5].

- The cost to households of avoidable food waste is estimated at £12 billion per year or £480 for an average household.

[1] This section does not cover hospitality/catering sector, schools, hospitals, prisons, horticulture as no reliable estimates were available at time of printing.
[2] WRAP Household Food and Drink Waste in the UK, November 2009 for definitions.
[3] See Defra, Family Food 2008, January 2010.
[4] See Chapter 4, Chart 4.1 – food packaging, food waste and land use change are excluded.
[5] WRAP Household Food and Drink Waste in the UK, November 2009.

Waste

5.2: Food and drink packaging waste in the supply to households



Source: WRAP Waste arisings in the supply of food and drink to households in the UK, March 2010

- Packaging is necessary to protect products in transit and help maintain a longer shelf life for perishable foods.

- WRAP estimates that 3.6 million tonnes of packaging in UK households originates from purchases made at grocery retailers[6].

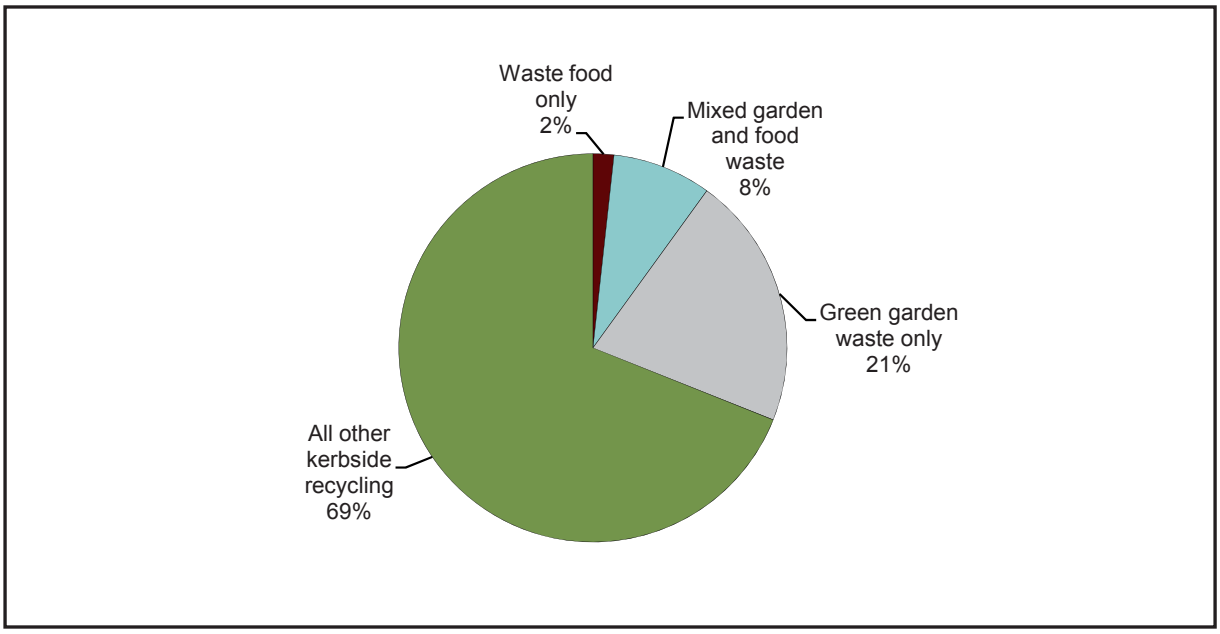
- Emissions associated with food and drink packaging in the supply chain are estimated at 8.7 million tonnes of CO_2 equivalent per year. Of this 6.1 million tonnes are associated with food and drink packaging brought into households.

- In 2009 the UK recycled 62% of all its packaging waste, food and non-food.

- It takes 95% less energy to manufacture a drinks can from recycled aluminium than to make it from primary metal[7]. Each tonne of aluminium recycled avoids 9 tonnes of CO_2 equivalent emissions.

[6] Including packaging from non-food and drink products sold in grocery shops.
[7] Page 24, Making the most of packaging, Defra, June 2009.

5.3: Local authority kerbside household recycling, UK



Source: Waste Data Flow questions 10 and 12, Q3 2009/10 provisional data

- In a 2006-07 study, food waste made up a quarter of waste arisings collected at the kerbside (from households) - an estimated 18% of all municipal waste in England[8].

- Households can dispose of food waste by various methods. WRAP[9] estimated that in 2007, 70% of household food waste was disposed of in the municipal waste[10], 22% via the sewer and the remaining 8% either home composted or fed to pets.

- 61 UK local authorities collected 27,893 tonnes of separate food waste from households and sent it for recycling between October and December 2009[11].

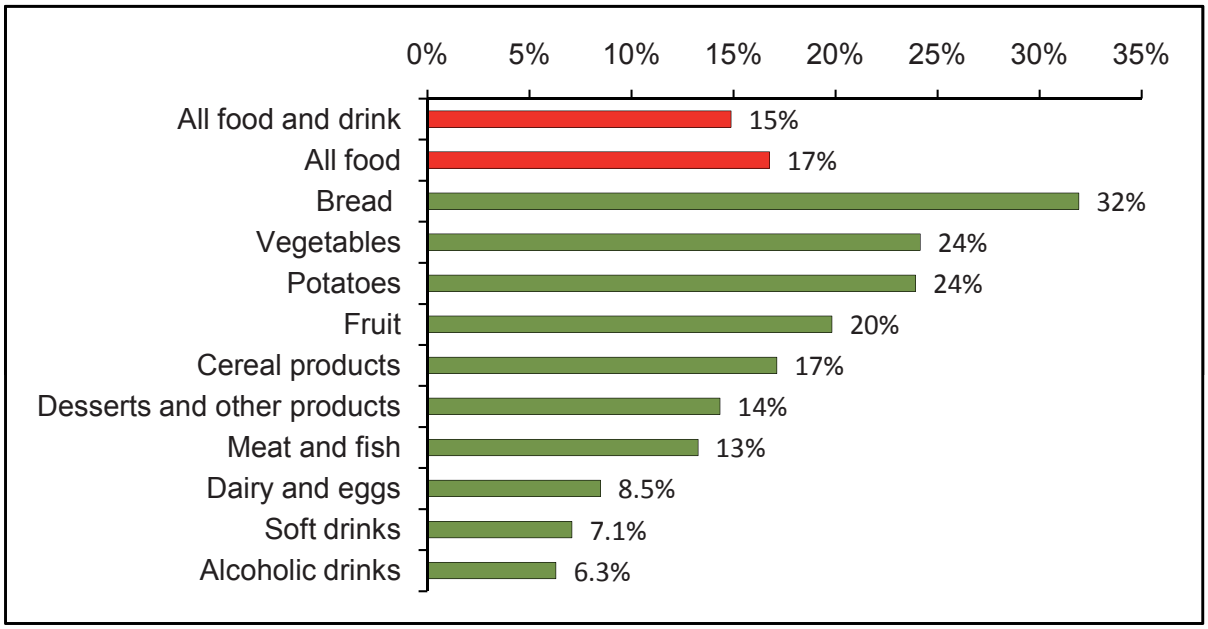
- Another 77 authorities sent a total of 132,720 tonnes of mixed food/garden waste from households for recycling in the same time period. Garden waste makes up the bulk of mixed collections rather than food waste.

- The collections from these 138 local authorities covered 4.8 million households, which is almost 20% of the 25.7 million households in the UK (in 2008).

[8] Municipal Waste Composition: Review of Municipal Waste Component Analyses, WR0119, Defra, January 2010.
[9] WRAP Household Food and Drink Waste in the UK, November 2009 – page 5.
[10] Separate kerbside food waste collections form part of this 70%.
[11] WasteDataFlow –provisional data for Q3 2009/10, finalised data available November 2010.

Waste

5.4: Edible household food and drink purchases wasted



Source: Household food and drink purchases linked to waste, Defra, July 2010

- Overall 15% of edible food and drink purchases are wasted each year. Different foods are wasted at different rates; 17% of food, 7.1% of soft drinks and 6.3% of alcoholic drinks are wasted.

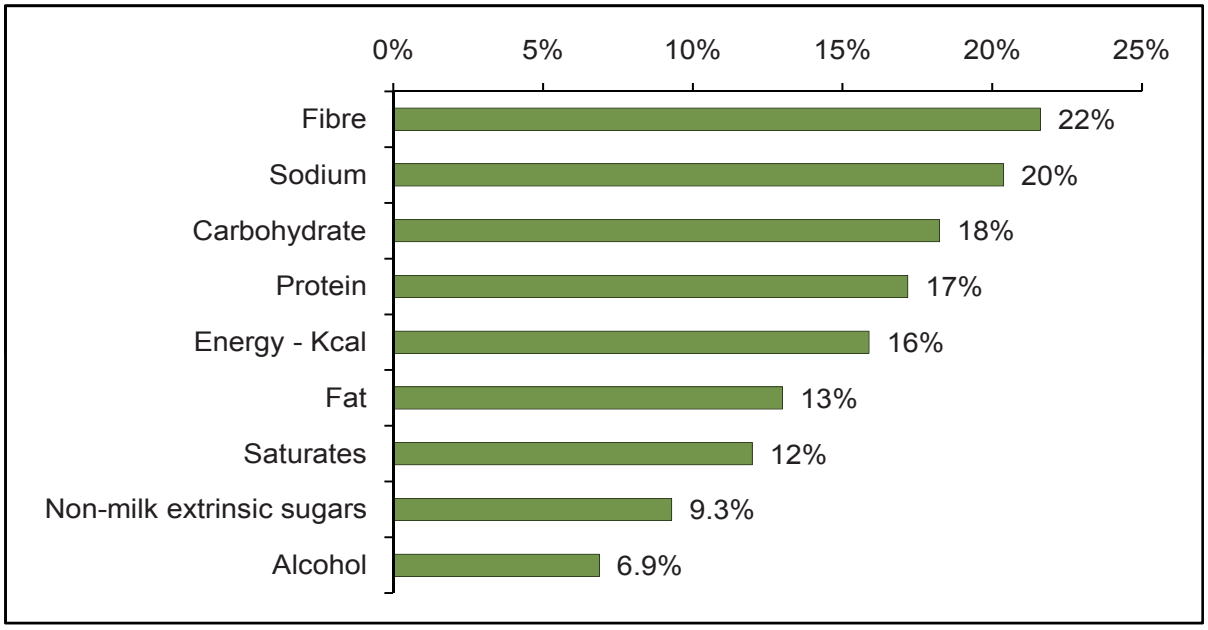
- As a percentage of purchases, white bread is the most wasted food with 40% of edible purchases wasted. The crusts of bread are classed as not edible in this analysis. Of salad vegetables (including lettuce, tomatoes, cucumber, sweetcorn and celery) 39% of edible purchases are wasted.

- Around 4.4% of sweet snacks are wasted. Foods in this group include; chocolate biscuits, chocolate bars, boiled sweets, fudge and toffees.

- In general, more expensive food products are wasted less. For example fish is more expensive in terms of unit cost and 10% of edible purchases are wasted. One of the less expensive foods is fresh potatoes of which 29% of edible purchases are wasted.

Waste

5.5: Percentage of household food and drink nutrients wasted



Source: Household food and drink purchases linked to waste, Defra, July 2010

- On average 16% of food and drink calories are wasted. This is only slightly more than the percentage of edible food and drink wasted, (15%). Some nutrients have a higher level of waste e.g. carbohydrate at 20% and fibre at 23%. Some nutrients are wasted far less e.g. non-milk extrinsic sugars found in confectionery, soft drinks, fruit juices and biscuits at 9.3%.

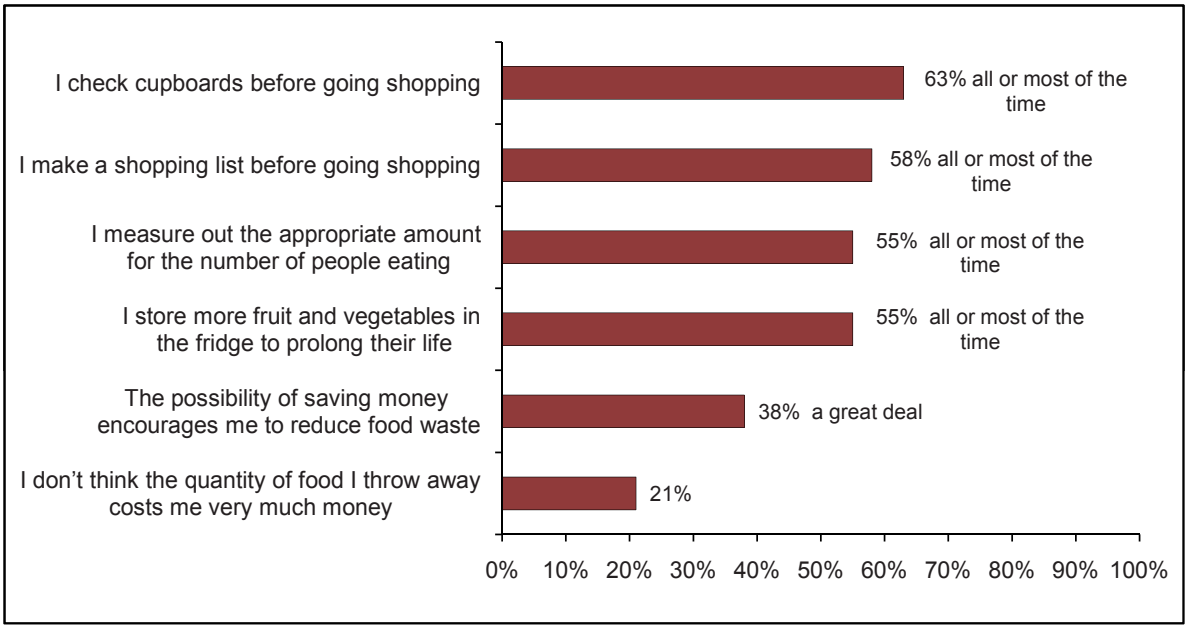
- Single adult households waste a greater proportion of their food and drink purchases than all other types of household. They waste 22% of edible food and drink compared to all other household types that waste 14%.

- The best estimate of 5 A DAY[12] taking into account waste is an average of 2.7 portions of fruit and vegetables per person per day. People purchased an average of 4.1 portions per day in 2008, with an edible content of 3.4 portions, which reduces to 2.7 after accounting for avoidable wastage. (Previously a figure of 3.7[13] portions consumed per person per day was used in Family Food 2008, but this did not account for high levels of waste in fruit and vegetables).

[12] See Health Survey for England http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables for official statistics on consumption of 5 A day.

[13] See Chapter 6.2 of this pocketbook

5.6: Public attitudes and behaviours



Source: WRAP Love Food Hate Waste Campaign Tracking Survey, Wave 8, April 2010

- Consumers often misinterpret food date labelling and don't store/use food appropriately, resulting in wasted food. 'Use by' indicates safety - only 45% of people surveyed[14] by WRAP responded correctly that food shouldn't be eaten after the end of the use-by date.

- Some people do not recognise that food production and distribution generate carbon emissions and do not link food waste to environmental problems. 55% of people surveyed by WRAP considered throwing away less food waste to be medium or low impact on climate change.

- 39% of people surveyed by WRAP thought that food waste is harmless because it is biodegradable – in fact the production of methane, a powerful greenhouse gas, during decomposition contributes to the environmental impact of food waste.

- 82% thought that packaging waste was more of a problem than food waste, when in fact the environmental impact of food waste is greater.

[14] WRAP Love Food Hate Waste Campaign Tracking Survey (unpublished), Wave 8, April 2010

Chapter 6: Dietary Health

6.1: The eatwell plate

Source: The Food Standards Agency (FSA)

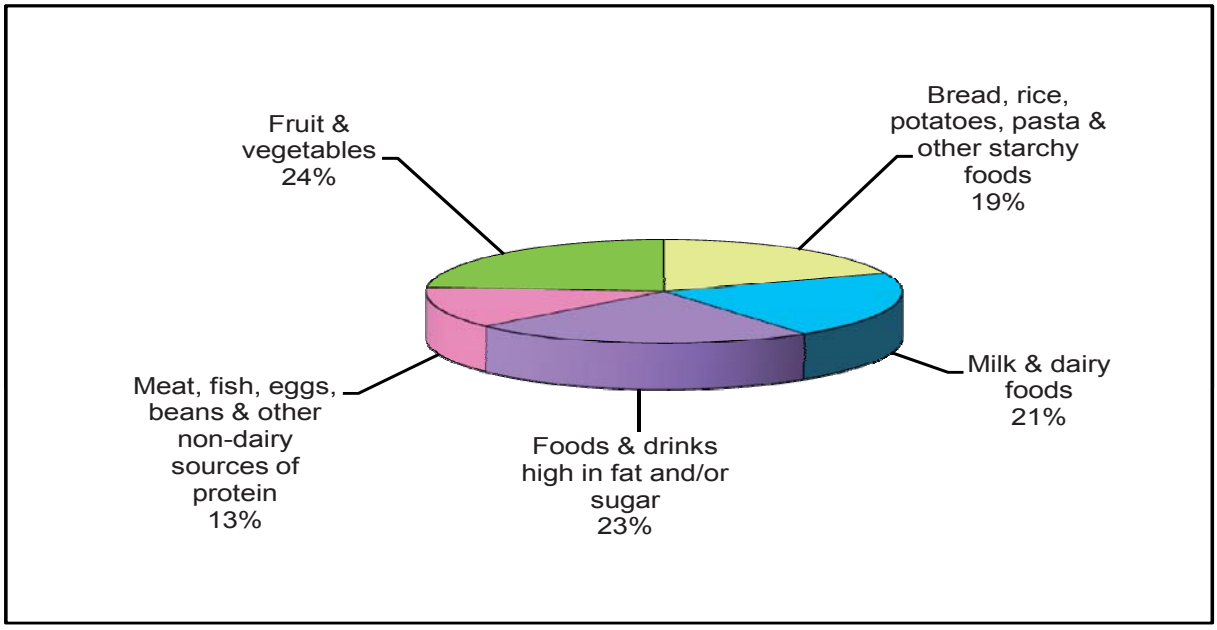
- The eatwell plate shows the types and proportions of foods that should be eaten to make a well-balanced, healthy diet. The eatwell plate balance does not need to be achieved at every meal; it is a guide to getting the balance right over time such as each day, or over the course of a week. The eatwell plate includes snacks as well as meals.

- We should try to eat:

    - Plenty of 'fruit and vegetables' (33%).
    - Plenty of 'bread, rice, potatoes, pasta and other starchy foods' (33%). Choose wholegrain varieties when you can.
    - Some 'milk and dairy foods' (15%).
    - Some 'meat, fish, eggs, beans and other non-dairy sources of protein' (12%).
    - Just a small amount of 'foods and drinks high in fat and/or sugar' (8%).

Dietary Health

6.2: Comparison of UK household purchases with the eatwell plate, 2008



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Food and drink categories in the Living Costs and Food Survey were grouped approximately into the five eatwell plate groups[1]. However, the food that we buy for the household does not fully reflect the food that we eat as it does not account for food eaten out and wasted food.

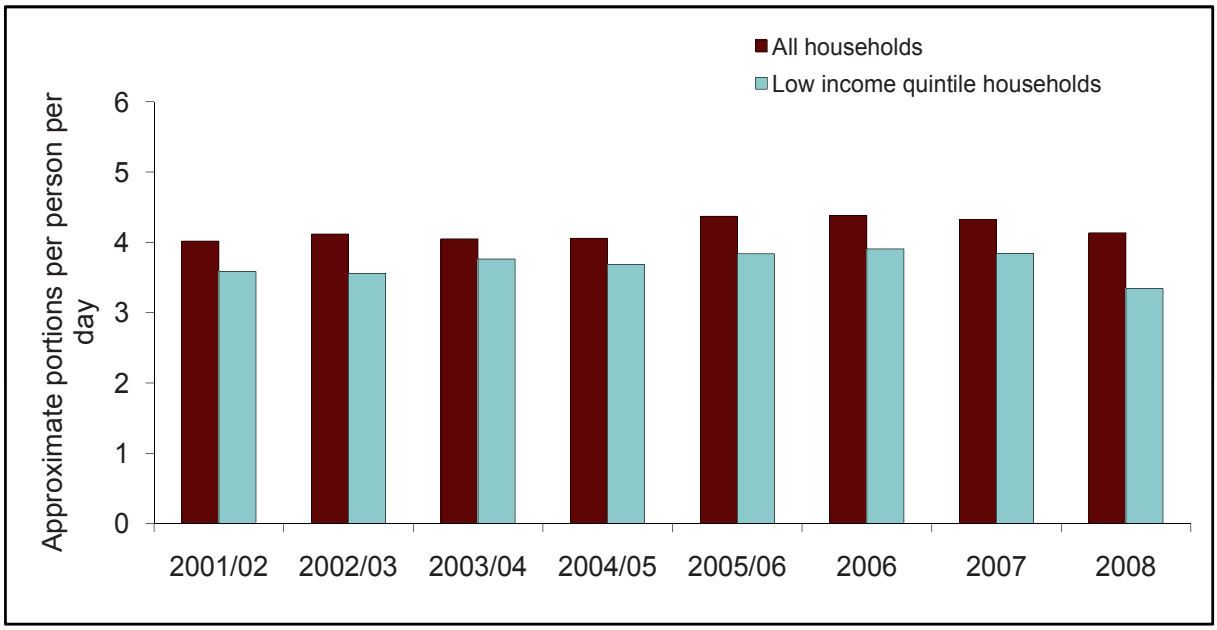
- According to this limited comparison we are purchasing:

    - too little 'fruit and vegetables', although they make up the largest percentage of the UK household diet at 24%,
    - too little 'bread, rice, potatoes, pasta and other starchy foods',
    - much too much 'food and drink high in fat and/or sugar',
    - too much 'milk and dairy foods',
    - the right proportion 'meat, fish, eggs, beans and other non-dairy sources of protein'.

[1] Alcohol, low calorie drinks, tea, coffee and mineral water were excluded from 'beverages' and 'soft drinks'. Slimming & sports foods & infant cereal foods were excluded from 'other cereals and other cereals products'. Only jelly, ice cream and soya foods were included from 'other food and drink'.

Dietary Health

6.3: Recent trend in purchases of fruit and vegetables (excluding potatoes) to 2008



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Purchases by low income households[2] increased from 3.6 portions[3] per day in 2001 to 3.8 in 2007, but in 2008 this dropped to 3.3.

- Between 1974 and 2007 purchases of fruit and vegetables by all households increased from the equivalent of 4.0 to 4.3 portions[3] a day, still short of the recommended five portions a day. In 2008 the gap widened again as purchases by all households fell back to 4.1 portions per day.

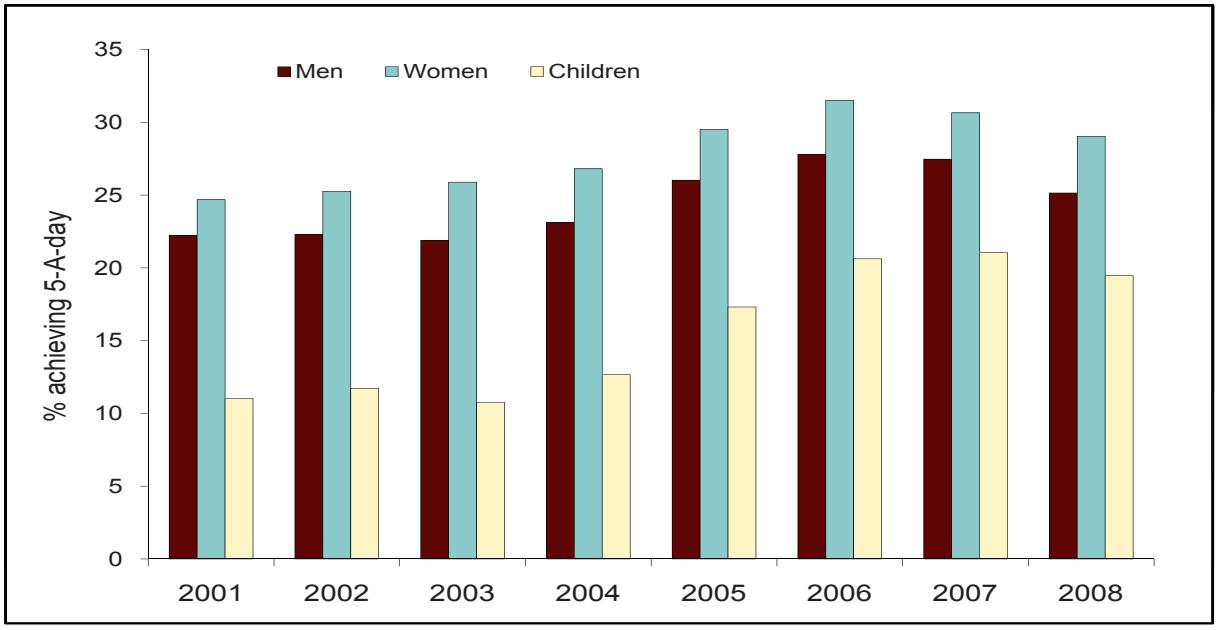
- Waste is not taken into account here. If waste is taken into account (see Chart 5.5) the overall estimate of 4.1 portions purchased reduces to 2.7 portions consumed.

- There were large rises in food prices between June 2007 and February 2009. This included a 23% rise in vegetable prices and an 11% rise in fruit prices. All food price rises put pressure on food shopping choices.

[2] Low income households are those with incomes in the lowest fifth of all households. Data on low income households is only available from 2001.
[3] Here, all purchases of fruit and vegetable juice are counted towards a person's 5 A DAY.

Dietary Health

6.4: Trend in the consumption of fruit and vegetables in men, women and children to 2008



Source: Health Survey for England 2008 (NHS Information Centre)[4]

- The proportion of men and women who consumed 5 A DAY increased between 2001 and 2006 to a level of 28% for men and 32% for women. However, levels fell slightly in 2007 and then by a little more in 2008 indicating that in 2008 only 25% of men and 29% of women consumed the recommended 5 A DAY. In 2008 6.7% of men and 5.5% of women included no fruit and vegetables in their diet.

- Intake of fruit and vegetables was highest in women aged 55 to 64 years, who consumed on average 4.3 portions per day in 2008, and lowest in men aged 16 to 24 years, who consumed 2.9 portions per day. Both levels are unchanged since 2007.

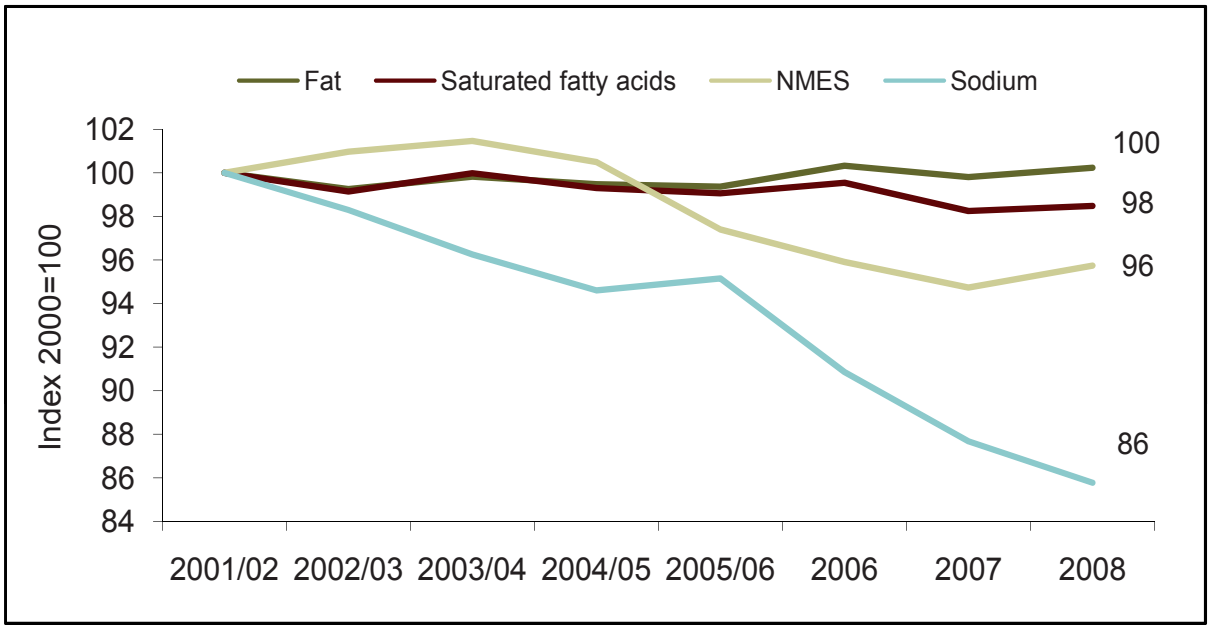
- In 2008 19% of boys and 20% of girls aged between 5 and 15 years consumed 5 or more portions of fruit and vegetables a day. This compares to 11% for both in 2001.

- 5.7% of all children included no fruit and vegetables in their diet in 2008. This compares to 10.9% in 2001.

[4] Data from the Health Survey for England is weighted for non-response from 2003 onwards. Consumption is based on a 24 hour period.

Dietary Health

6.5: Trends in intakes of fat, saturated fatty acids, non-milk extrinsic sugars[5] and sodium to 2008



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS); food and drink purchases for the household and food and drink eaten out.

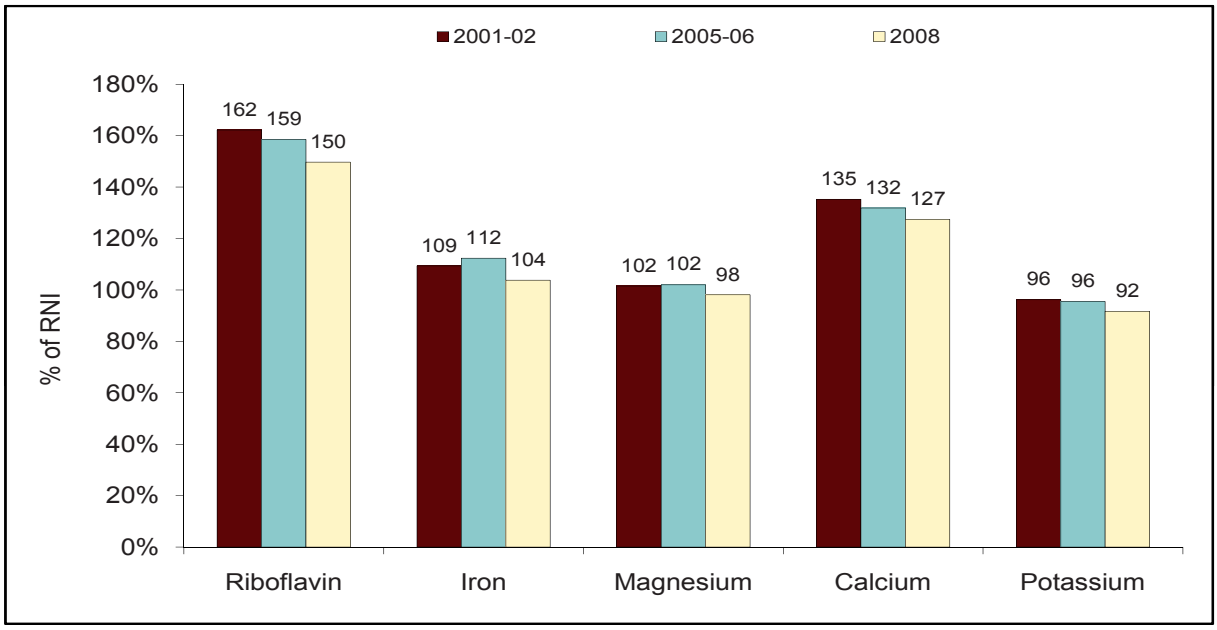
- Total fat should contribute no more than 35%[6] of food energy intake (excluding alcohol), with saturated fat contributing no more than 11%. Although levels have been fairly stable since 2001-02 they have both reversed the very slight fall seen in 2007 and both remain above recommended levels at 38.5% and 14.6% respectively in 2008. A recent FSA survey[7] found that trans-fat intakes have fallen slightly and are within recommended levels.

- The percentage of food energy obtained from NMES has been on a downward trend since 2003-04, but at 14.1% in 2008, is still above the recommended level of 11%.

- In 2008 sodium intake, excluding table salt and allowing 10% for wastage, was estimated to be an average of 2.78 g/person/day from household purchases plus food eaten outside the home. This is a reduction of 2.2% on 2007 and a 14% decrease since 2001-02. SACN[8] recommend 2.40g of sodium including table salt.

[5] NMES – free sugar not bound in foods e.g. table sugar, honey and sugars in fruit juices, but excluding milk sugar.
[6] For recommended intakes see Dietary Reference Values for Food Energy and Nutrients in the United Kingdom, 1991 (Department of Health).
[7] Food Standards Agency: National Diet & Nutrition Survey, Headline results year 1 (2008-09).
[8] Scientific Advisory Committee for Nutrition.

6.6: Average intake of micronutrients, 2001-02 to 2008[9]



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Average intakes of most vitamins and minerals met or exceeded recommended levels in 2008. Between 2001-02 and 2008, intakes of some minerals including potassium and magnesium barely reached the recommended levels. In 2008 intake of potassium was 92% of the recommended level.

- Intake of Vitamin B_{12} has been consistently high since 2001-02 and despite a fall in 2008 to its lowest point it remains at around four times the recommended level.

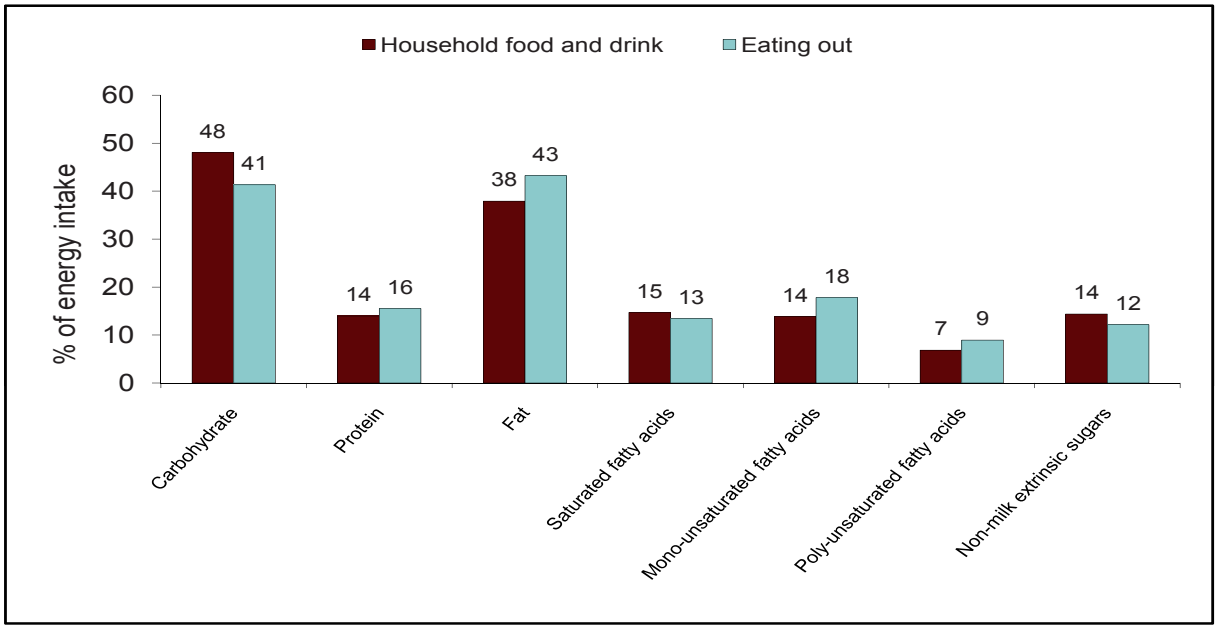
- Between 2005-06 and 2008 average intake of micronutrients across the whole population[10] has fallen:

    - vitamin C fell by 6.7%,
    - vitamin D fell by 6.7%,
    - beta carotene fell by 2.1%,
    - iron by 7.8% and
    - folate by 4.1%.

[9]Reference Nutrient Intake: the intake which is considered sufficient to meet the requirements of 97.5% of the population.
[10]Family Food 2008, Defra.

Dietary Health

6.7: The household diet compared with the eating out diet in 2008[11]



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- The eating out diet contains more fat but less carbohydrates than the household diet. It includes all food and drink that is not brought into the household.

- Eating out contributes 10.4% of energy intake excluding energy from alcohol.

- Mono-unsaturated fatty acids are higher in the eating out diet. They are found in olive oils, rapeseed oil, fish oils, nuts, milk and some meat and meat products.

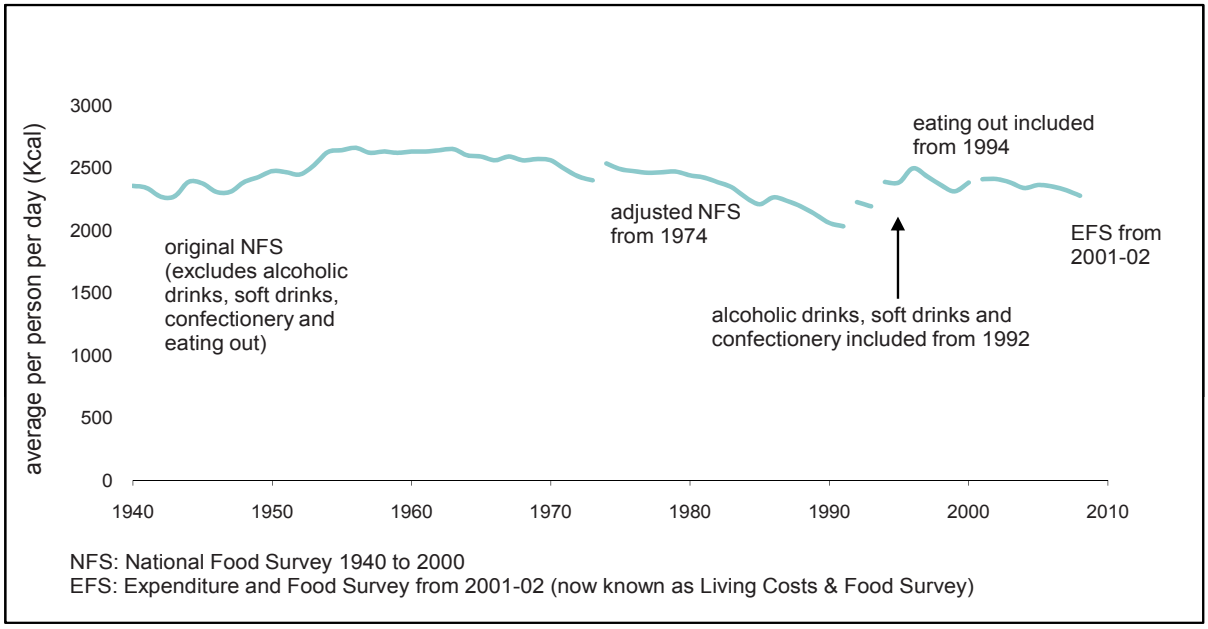
- Poly-unsaturated fatty acids are higher in the eating out diet. They are found in vegetable oils and fish oils and some meat and meat products.

- Saturated fatty acids are lower in the eating out diet. They are found in milk and dairy products, meat and meat products, biscuits, cakes and pastries.

[11] For recommended intakes see Dietary Reference Values (DRVs) for Food Energy and Nutrients in the United Kingdom, 1991 (Department of Health).

Dietary Health

6.8: Trends in average energy intake from food and drink to 2008

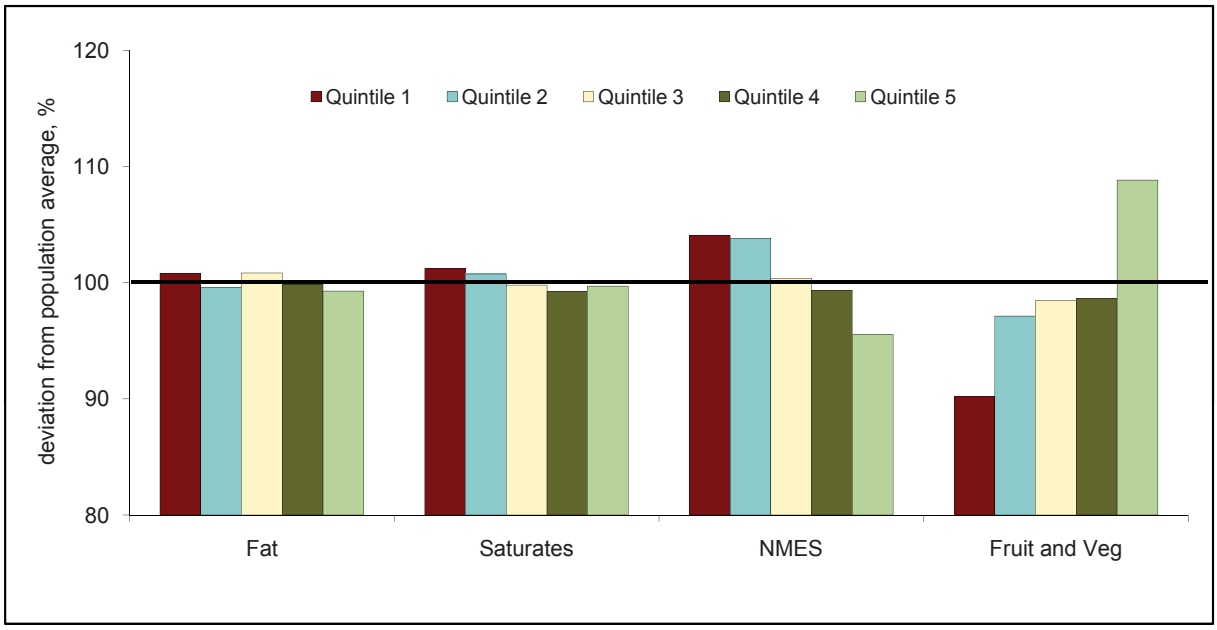


Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Average energy intake based on all food and drink purchases has fallen by 5.5% from 2,409 kcal per day in 2001-02 to 2,276 kcal in 2008.
- Energy intake from food and drink recorded as eating out has fallen by 20% since 2001-02 and by 7.3% since 2007.
- There is a long term downward trend in energy intake since 1964, visible in all components of the chart.
- Combining year on year changes of estimates on like bases suggests that average energy intake per person is 29% lower in 2008 than in 1974.
- Despite decreasing energy intake, over-consumption of energy relative to our needs is a major factor in increasing levels of obesity.
- Average energy intake based on household purchases in the lowest income decile was 6% lower than the UK average in 2008.

Dietary Health

6.9: Income related diet from household purchases, 2008



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Relative to the population average the percentage of energy intake derived from fat and saturated fatty acids varies little across the income quintiles at around 38% and 15% respectively.

- The percentage of food energy obtained from NMES[12] is highest in the lowest income quintile and falls as the level of income rises. The lowest income quintile obtains 15.0% of food energy from NMES whilst the highest quintile obtains 13.7%.

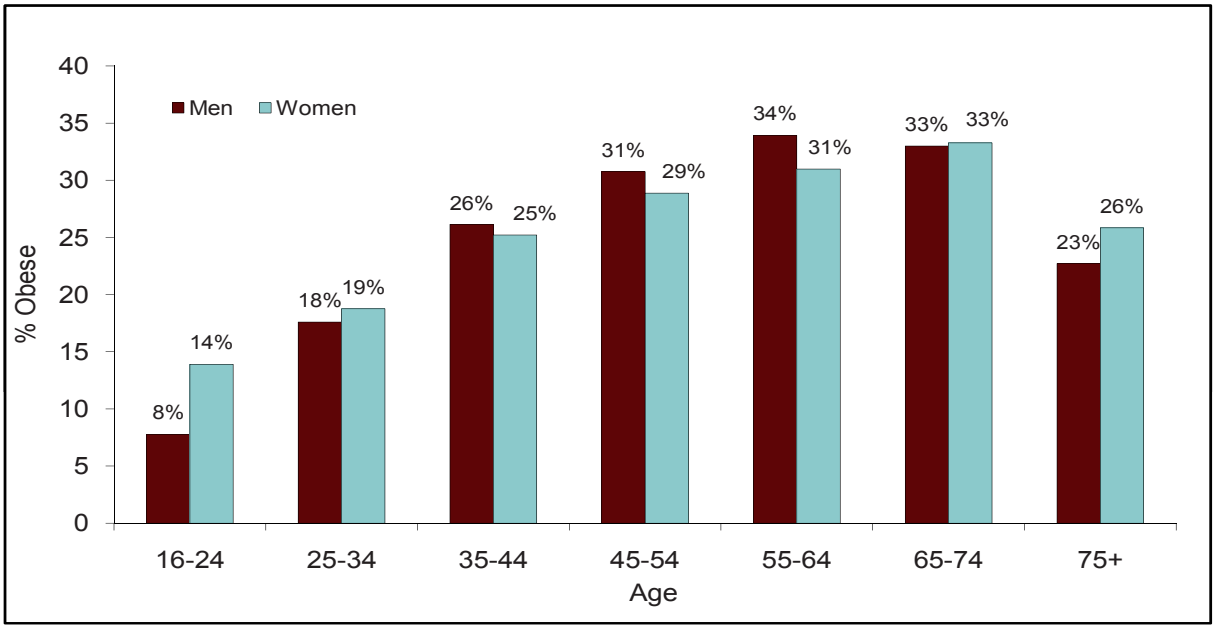
- Intake of fruit and vegetables has the opposite trend, with the highest intake being seen in the highest income quintile at 4.1 portions a day, still short of the recommended 5 A DAY.

- Intake of fruit and vegetables in the lowest income quintile in 2008 was equivalent to 3.4 portions per day.

[12] NMES – free sugar not bound in foods e.g. table sugar, honey and sugars in fruit juices, but excluding milk sugar.

Dietary Health

6.10: Levels of obesity in men & women[13] in England in 2008



Source: Health Survey for England 2008 (NHS Information Centre)

- In 2008 in England 25% of people aged 16 or over and 16% of children were obese.

- In 2008 the highest levels of obesity recorded in men was between the ages of 55-64 at 34%. In women, the highest levels recorded were between the ages of 65-74 at 33%.

- Levels of obesity lower beyond the age of 75, with 23% of men and 26% of women in this age group being obese in 2008.

- The lowest levels of obesity are in young adults. In 2008 11% of adults aged 16-24 were obese but there was a large difference between men and women in this age group. 7.8% of men in this age group were obese in 2008 whilst the level of obesity in women in this age group was 14%.

- In 2008, women in the lowest income quintiles were more likely to be obese than those in the highest quintile[14]. There was no clear relationship for men between BMI and income.

[13] Body Mass Index (BMI) is a measure of weight relative to height: underweight = less than 18.5kg/m2, normal = 18.5 to less than 25kg/m2, overweight = 25 to less than 30kg/m2, obese = 30kg/m2 or more (includes morbidly obese), morbidly obese = 40kg/m2 or more.

[14] Obesity, Physical Activity and Diet report, England Feb 2010, NHS Information Centre.

Dietary Health

6.11: Obesity and health

Type 2 Diabetes	• The obese face a 20 fold increase in risk of Type 2 diabetes. • 90% of Type 2 diabetics have a BMI of > 23kg/m^2.
Hypertension	• 5 fold risk in the obese. • 85% of hypertension is linked to a BMI > 25kg/m^2.
Coronary Heart Disease (CHD) & Stroke	• 2.4 fold in obese women and 2 fold in obese men under 50. • Obesity contributes to cardiac failure in > 10% of patients.
Cancer	• 10% of cancer deaths in non-smokers are related to obesity.

Source: Foresight, Tackling Obesities: Future Choice – Project Report, 2007 (Department of Health)

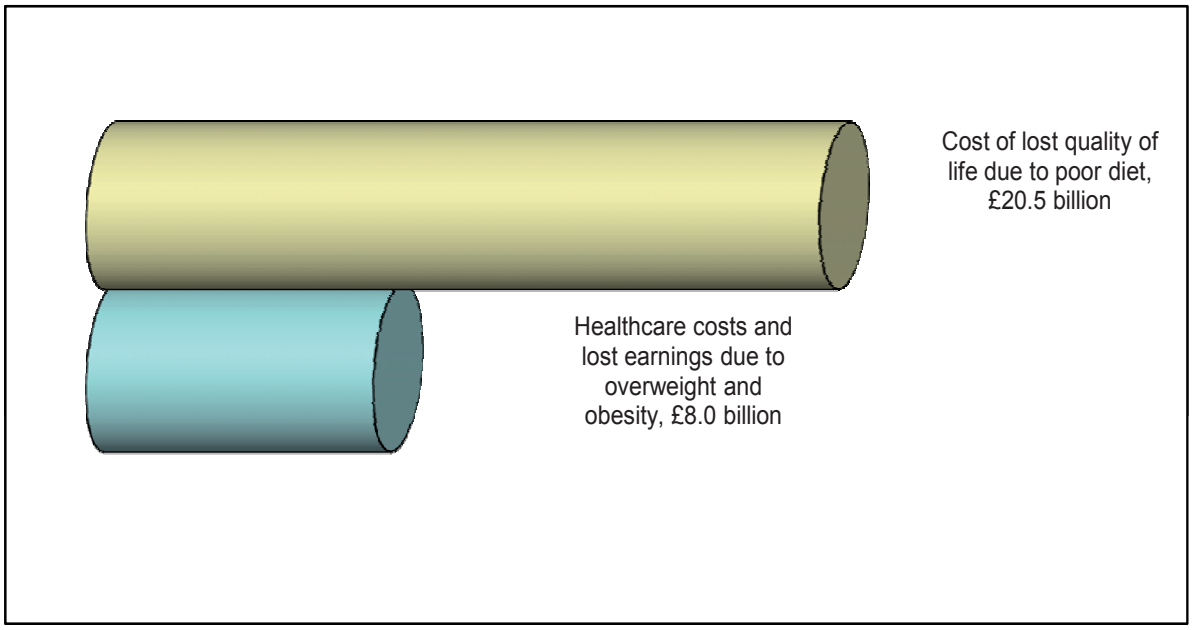
- The rise in obesity has been attributed, in part, to the fact we live in an obesogenic environment, eating more energy rich foods and exercising less.

- Several health conditions are associated with being overweight or obese, including type 2 diabetes, hypertension, coronary heart disease, stroke and cancer. It also increases the risk of other conditions including osteoarthritis and infertility.

- Obesity is expected to increase the incidence of type 2 diabetes by 70%, stroke by 30% and coronary heart disease by 20% by 2035.

Dietary Health

6.12: The cost of diet-related ill health



Source: Impact Assessment, Annex 7 2006, OFCOM

- Diet-related ill health has personal and social costs as well as NHS costs and costs to the economy due to absence from work. The Strategy Unit[15] estimated in 2008 that if our diet matched the national nutritional guidelines the health benefits to individuals would be £20.5 billion each year in quality-adjusted life years.

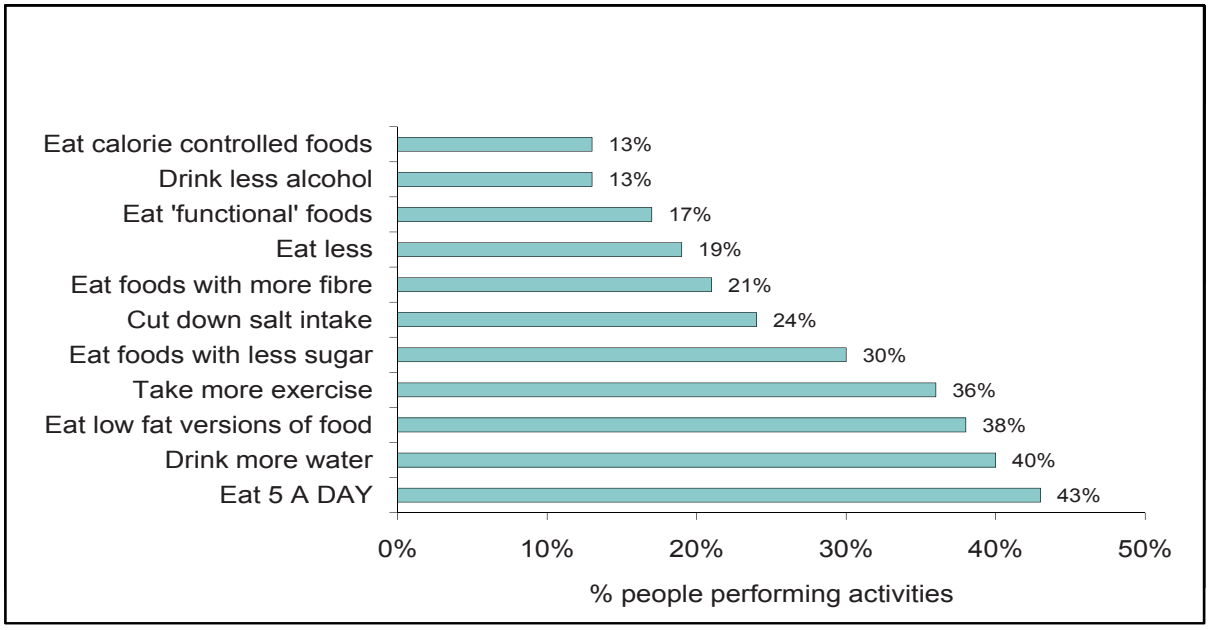
- The House of Commons Health Select Committee[16] estimated the total annual cost of obesity and overweight for England in 2002 was nearly £7 billion[17] which uprating for inflation would be £8 billion in 2008.

- Two independent studies also estimated the costs of poor diet. Raynor[18] estimated poor nutrition cost the NHS £6-7 billion in 2002, which pro rata in 2009 would increase to at least £8 billion. BAPEN[19] estimated that malnutrition costs public services at least £7.3 billion, including hospital treatment costs (£3.8 billion) and long-term care (£2.6 billion).

[15] Food: analysis of the issues, The Strategy Unit, August 2008 (Cabinet Office).
[16] House of Commons Select Committee, 2002.
[17] This included NHS costs for direct treatment, the cost of dependence on state benefits, and indirect costs such as loss of earnings and reduced productivity, including 45,000 lost working years.
[18] Rayner et al (2005), The burden of ill health in the UK, BMJ.
[19] British Association for Parenteral and Enteral Nutrition (BAPEN), 2006.

Dietary Health

6.13: Activities for a healthy lifestyle



Source: IGD Shopper Trends 2010

- Eating five portions of fruit and vegetables was the most common activity of those people questioned about what they were doing to obtain or maintain a healthy lifestyle. This is the most consistent trend over recent years[20] in behaviours supporting a healthy lifestyle, rising from 32% in 2006 to the current level of 43%.

- This was closely followed by 40% who claim to be drinking more water, 38% who eat low fat versions of food and 36% who are taking more exercise.

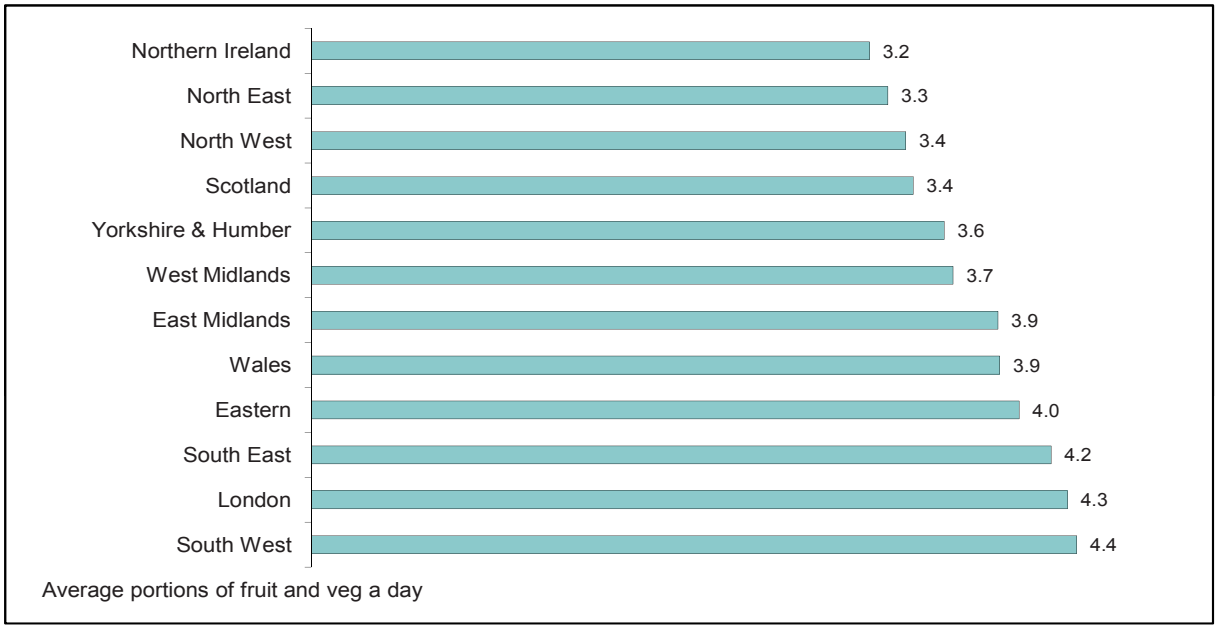
- 5% of those questioned claimed their lifestyle was already healthy.

- Despite a focus by the NHS on the importance of having breakfast, more shoppers are missing this meal than six years ago[21]. 27% of shoppers miss breakfast at some stage during the week, up from 19% in 2004. As many as 16% miss breakfast seven days a week.

[20] IGD Shopper Trends.
[21] IGD 2010: Meal Occasions.

Dietary Health

6.14: Regional household consumption of fruit and vegetables, 2006-2008[22]



Source: Living Costs and Food Survey (LCFS) 2008 (Defra/ONS)

- Purchases of fruit and vegetables (excluding potatoes) were lowest in Northern Ireland, equivalent to 3.2 portions per person per day.

- Purchases of fruit and vegetables (excluding potatoes) were highest in the South West at an equivalent of 4.4 portions per person per day, with London and the South East being close behind at 4.3 and 4.2 portions per day respectively.

- Within England, household purchases of fruit were lowest in the North East, and household purchases of vegetables were lowest in the North West.

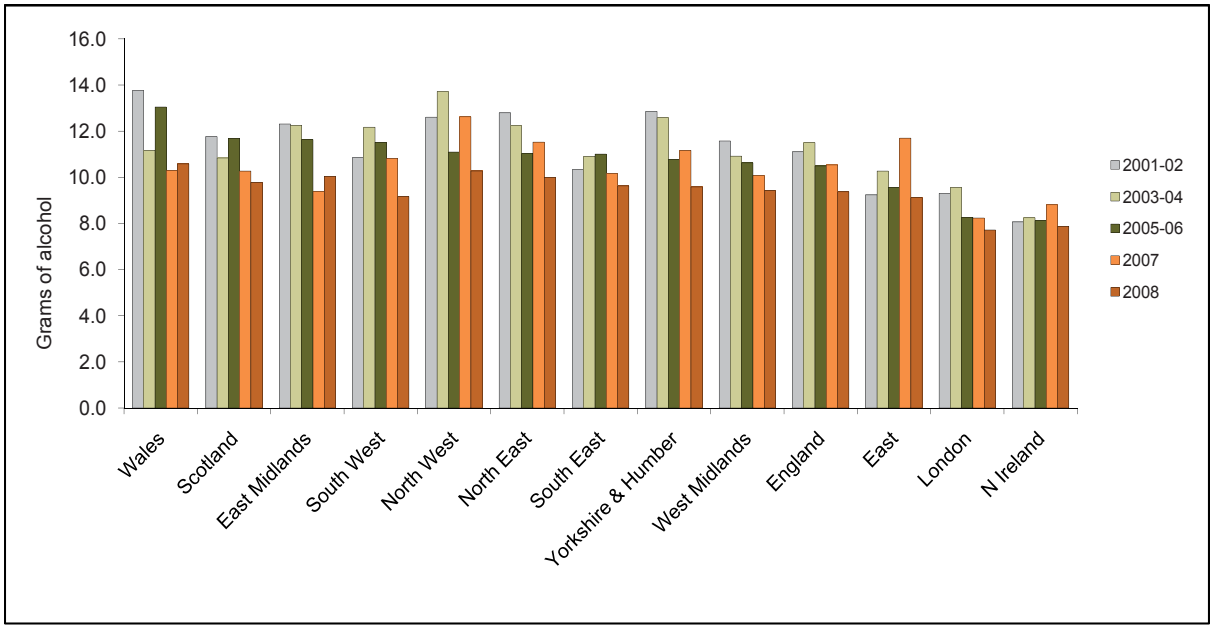
- Much of the regional variation may be explained by differences in income. In general, purchases of fruit and vegetables increase with income[23].

- Waste is not taken into account here. If waste is taken into account (see Chart 5.5) the overall estimate of 4.1 portions purchased reduces to 2.7 portions consumed.

[22] These estimates do not allow for the exclusion of multiple portions of fruit juice from 5 A DAY.
* It is recommended that people eat at least five 80 gram portions of a wide variety of fruit and vegetables a day, excluding potatoes.
[23] Family Food 2008 (Defra).

Dietary Health

6.15: Trend in average alcohol intake (including eating out) from the Living Costs and Food Survey



Source: Living Costs and Food Survey (LCFS) Defra/ONS

- Alcohol intake is declining in all the regions. The effect is less pronounced in Northern Ireland where purchases are already relatively low.

- Alcohol intake is highest in Wales and the North West but is falling.

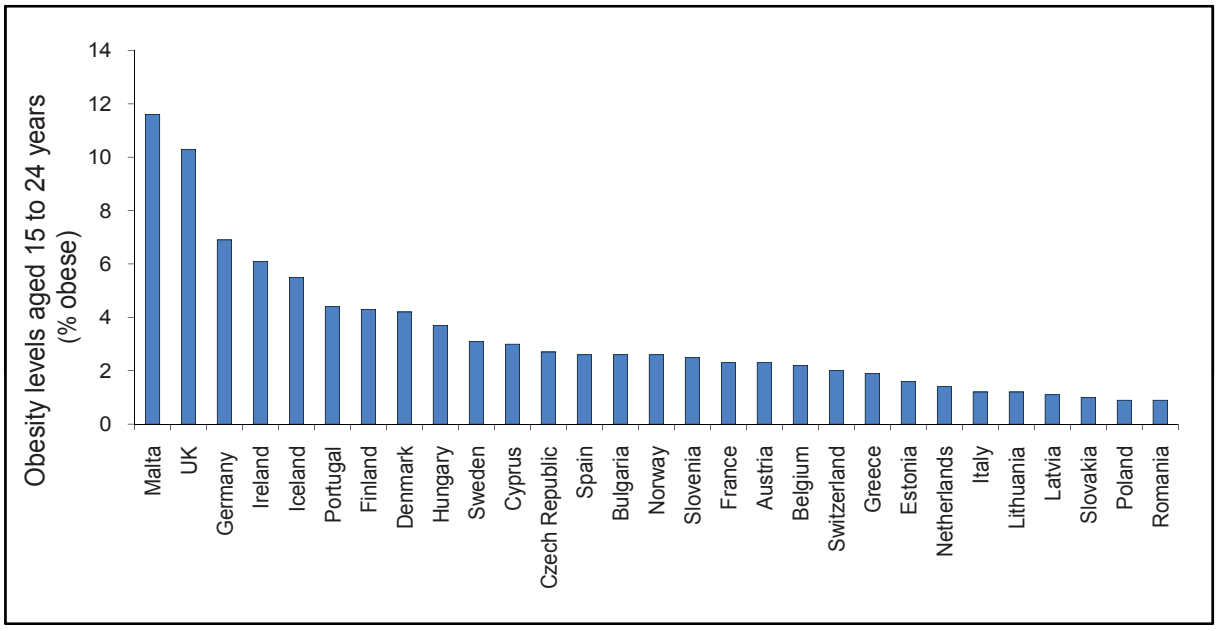
- Purchases of alcoholic drinks significantly dropped in 2008, with household purchases falling by 8.6% and eating out purchasing falling by 12.4%.

- Between 2007 and 2008 there was a reduction in alcohol intake from both eating out and household purchases, down by 8.8% and 11.9% respectively. Since 2005-06 eating out intakes of alcohol have fallen by 26%.

- The Department of Health is responsible for Government health policy on alcohol misuse. Regularly drinking above the recommended daily limits for lower risk drinking of 2-3 units for women and 3-4 units for men, significantly increases the risk of ill health.

Dietary Health

6.16: Obesity levels in young adults across the EU

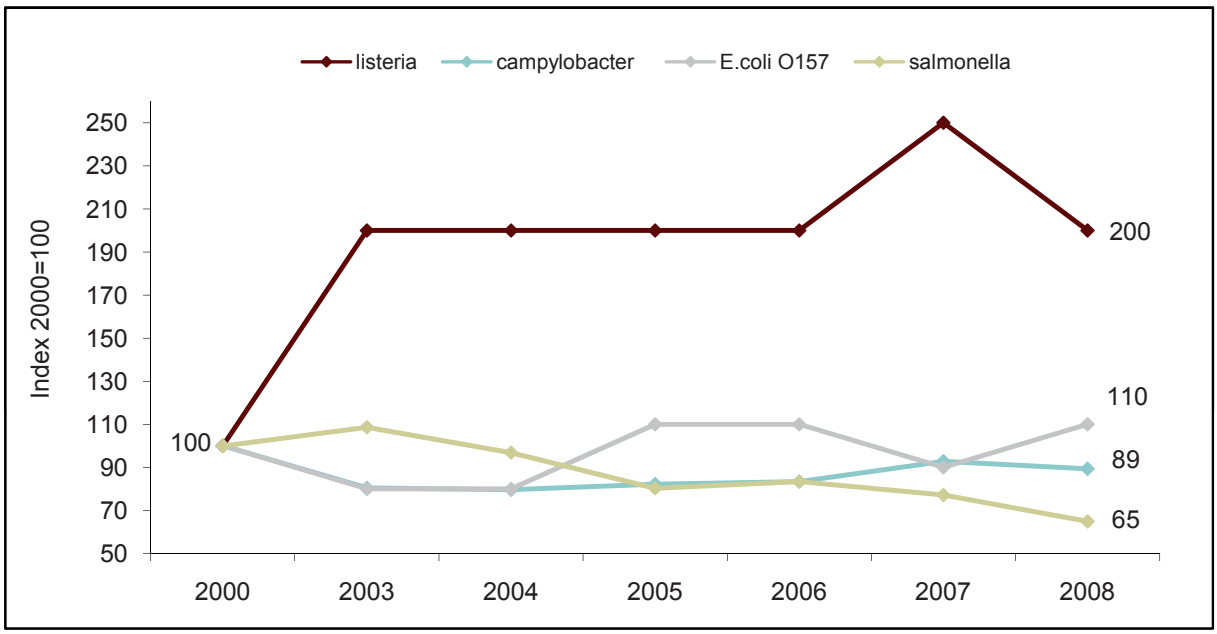


Source: Eurostat; data coverage period differs across countries from 1999 to 2003.

- Obesity is far higher in the UK than almost anywhere else in the EU. Only Malta recorded higher levels.
- In young adults the rate of obesity was 10.3% in the UK (in 2002) whereas in Germany (in 1998), the next highest, the level was only 6.9%.
- On average obesity levels are slightly higher in women but it varies from country to country.
- There is a pattern of increasing obesity with age up to 64 years that is apparent in most countries.

Chapter 7: Safety & Confidence

7.1: Trend in the estimated number of cases of foodborne illnesses in England and Wales, 2003-2008[1]



Source: FSA /Health Protection Agency, 2010

- There were an estimated 321,200 cases of campylobacter in England and Wales in 2008 making it the most prevalent foodborne illness. Although the incidence of campylobacter fell slightly in 2008, early indications suggest a rise in 2009 to levels comparable with those in 2000.

- Estimated cases of listeria have doubled since 2000. A marked increase in 2001 was followed by a period of stability until 2007 when there was another marked increase. 2008 estimates indicate a return to pre-2007 numbers. Although listeria is a less common cause of food poisoning compared to other pathogens, it can be life threatening. It is estimated that there are more deaths from listeria alone than those from salmonella and E.coli combined.

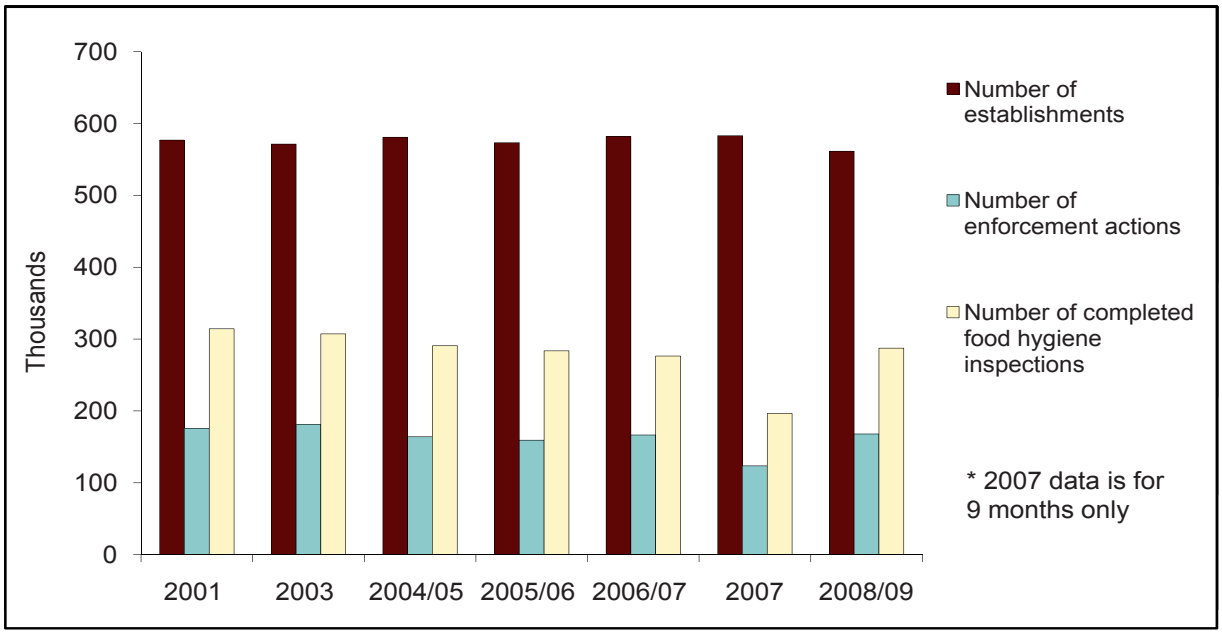
- In 2008 there were an estimated 27,000 cases of salmonella, 35% fewer than in 2000 and a 16% reduction on 2007.

- There were an estimated 1,100 cases of E.coli in 2008. Incidence has fluctuated since 2000 but has been generally consistent.

[1] Estimates for 2001 and 2002 are not available. Estimates of cases occurring in the community, as opposed to lab-confirmed reported cases. Salmonella, campylobacter, E. coli O157 and Listeria monocytogenes have been identified by the FSA as the four major pathogens. Estimates have been rounded to the nearest ten or one hundred

Safety & Confidence

7.2: Inspections and enforcement actions of food businesses to 2008-09



Source: FSA Board paper on monitoring of food law enforcement activity, March 2010

- The total number of food establishments under Local Authority (LA) control at 31 March 2009 was 561,454, down 3.7% from 583,101 establishments at 31 December 2007. Over 95% of UK Food Authorities provided LAEMS (Local Authority Enforcement Monitoring System) returns for the 2008-09 period.

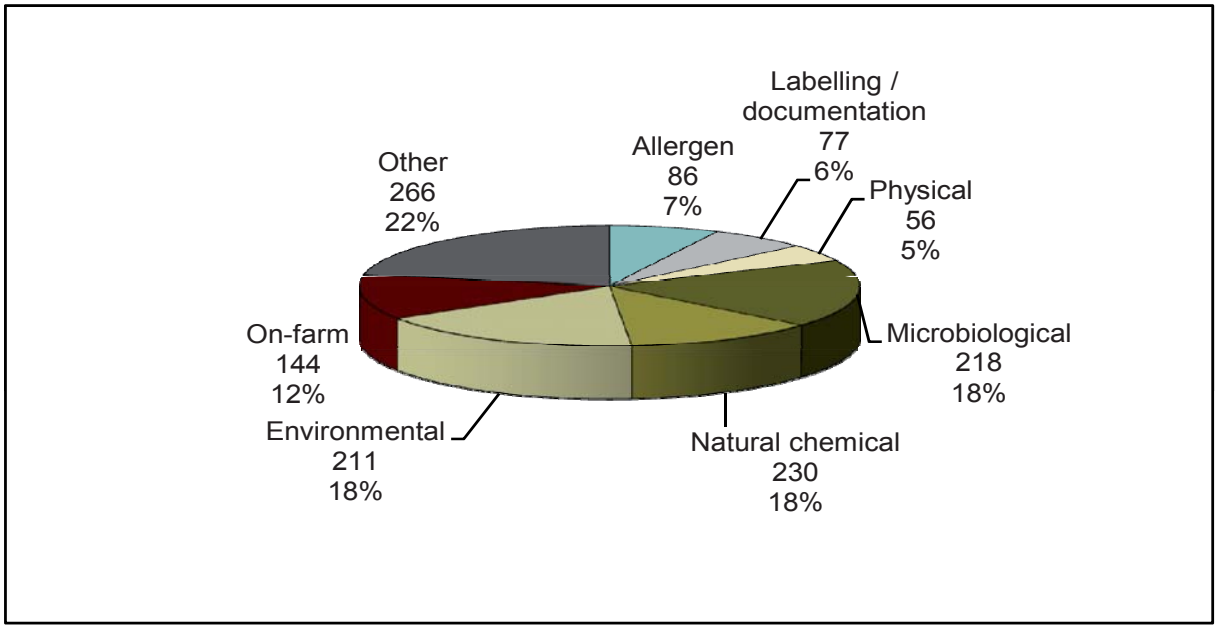
- LAs carried out over 0.5 million on-site interventions at food establishments, with higher risk category establishments being prioritised.

- Total enforcement (remedial) actions covering food hygiene inspections and food standards inspections was 167,980 in 2008-09, a 1% increase on 2006-07. Data for 2007 covered only 9 months so does not provide a genuine indication of year on year change.

- Local Authorities received a total of 72,562 complaints about the safety and quality of food items, and the hygiene standards of establishments (48% of which related to hygiene standards of establishments).

Safety & Confidence

7.3: Contamination incidents at food establishments by type[2], 2009



Source: Annual Report of Incidents, 2009 (FSA)

- Procedures for reporting and recording incidents are improving with wider definitions of an incident, implementation of European regulation[3] and improved engagement with stakeholders[4]. The number of incidents increased each year to 2006, followed by a plateau and then a decline of 7% in 2009 to 1,208.

- Microbiological and environmental contamination each accounted for around 18% of contamination incidents reported in 2009; both showed an increase on 2008 (17% and 13% respectively).

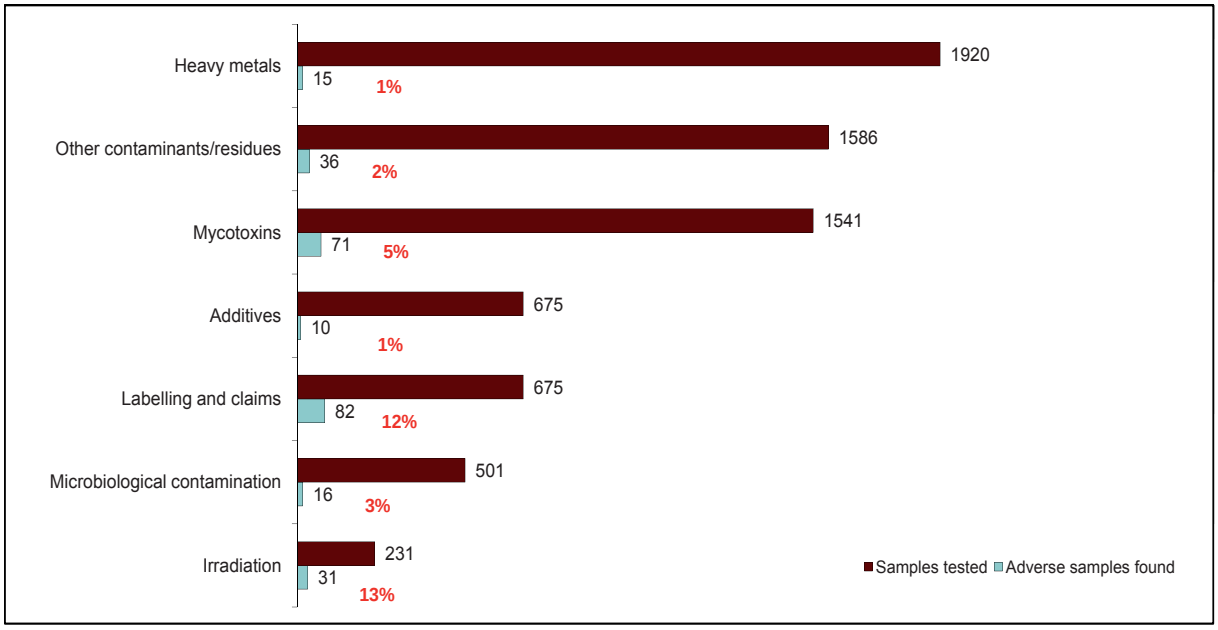
- Natural chemical contamination such as mycotoxins accounted for 12% of incidents in 2009, a fall of 35% since 2008 driven by the reduction in the detection of aflatoxins.

- There were 77 labelling/documentation incidents in 2009. This accounted for 6.4% of all incidents reported and was a 39% decrease on 2008. These incidents include claims such as nutritional composition, salt levels, GMO free and low fat where a chemical analysis is required to test the claim.

[2] 'Other' includes food contact materials, veterinary medicines, use of unauthorised ingredients, pesticides etc. Microbiological contamination is the main cause of food poisoning.
[3] European Commission Regulation (EC) 178/2002, 'General Food Law', UK, 1 Jan 2005.
[4] Local authorities, industry, blue light services and other Government departments/agencies.

Safety & Confidence

7.4: Number of adverse samples found in imported food by type, 2009-10[5]



Source: Key Findings of the Imported Food Sampling & Surveillance Grants 2009/10 (FSA)

- Labelling and claims and mycotoxins were the most common problems in imported foods sampled in 2009-10. Testing for heavy metals, which includes cadmium, mercury and arsenic, produced the highest number of samples although only 1% of these were found to be adverse.

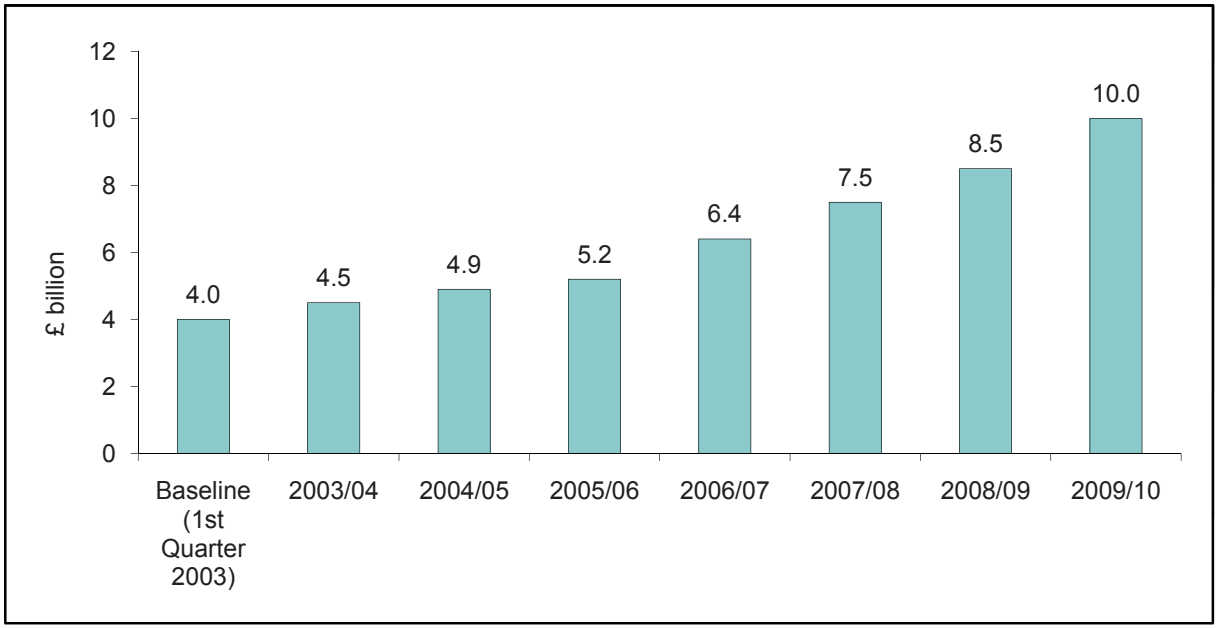
- The greatest percentage of non-compliances in 2009-10 originated from Asia, with China, India and Thailand being the top three countries. There has been a gradual improvement in compliance from products from Asia since the monitoring programme began in 2003.

- Samples were taken as part of a targeted sampling programme therefore rates of non-compliance were higher than those expected for randomly selected foods. As sampling priorities change each year, comparisons cannot be made year on year.

[5] Sampling was targeted at foods most likely to be affected by the specific areas of concern e.g. nut products were tested for mycotoxins. 'Microbiological contamination' is the main cause of food poisoning. 'Additives' includes the presence of non-permitted substances and non-labelling of permitted substances. 'Labelling claims' excludes includes general checks carried out by public analysts but includes nutritional composition and claims such as 'organic' where a chemical analysis is required to test the claim. 'Other' includes pesticides, veterinary medicines and natural, process and organic contaminants.

Safety & Confidence

7.5: Trend in the value of food with the Red Tractor logo, 2003 to 2009-10



Source: Assured Food Standards (AFS)

- The Red Tractor is a leading quality kitemark for British food and drink and covers a wide range of products including, meat, fruit, vegetables, milk, cheese, beer and flour.

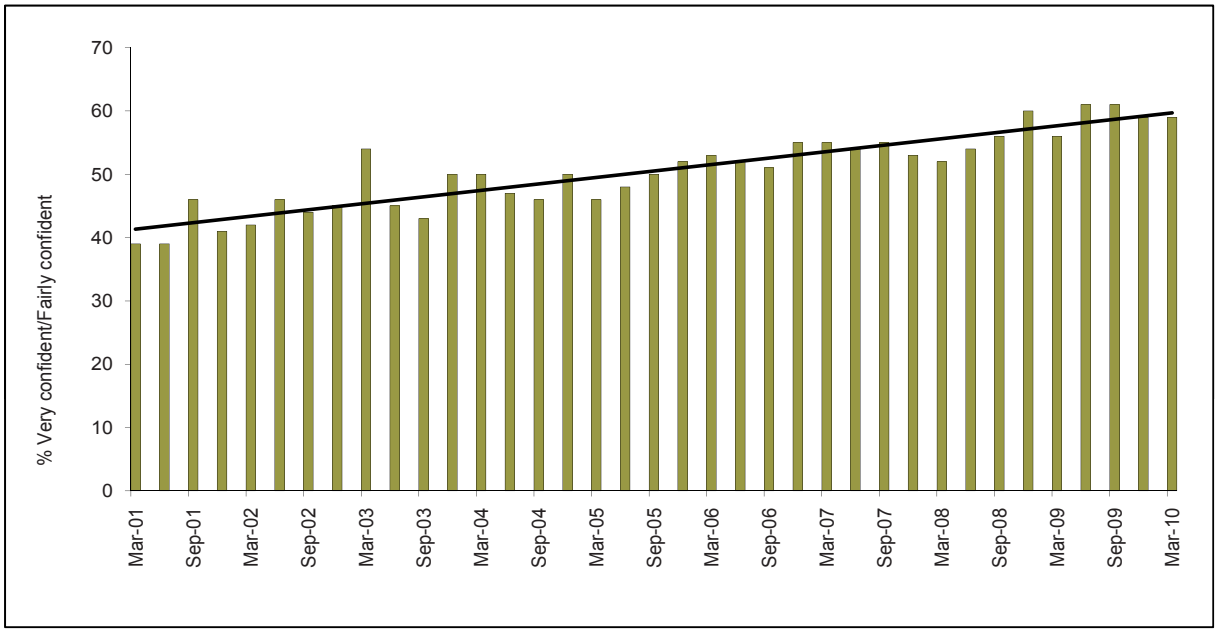
- Assured Food Standards (AFS) is an independent organisation set up by the food chain to manage, develop and promote the Red Tractor as a mark of safe, quality, affordable food that the public can trust.

- The Red Tractor logo was launched in 2000 and now has over 78,000 farmers and growers as members of the scheme, all committed to maintaining high standards of food safety and hygiene, animal welfare and environmental protection.

- Since the Q1 of 2003 baseline value of £4.0 billion there has been a year on year increase in the value of sales of food with the Red Tractor logo, reaching a level of £10 billion in 2009-10.

Safety & Confidence

7.6: Trend in public confidence in food safety measures, 2001-2010[6]



Source: Quarterly Public Attitudes Tracker Survey, 2010 (FSA)

- In March 2010 59% said they were confident[7] in the current measures taken by all organisations involved in protecting health with regards to food safety. This remained the same as the December 2009 level, also at 59%. Overall, this has shown a relatively steady increase over time.

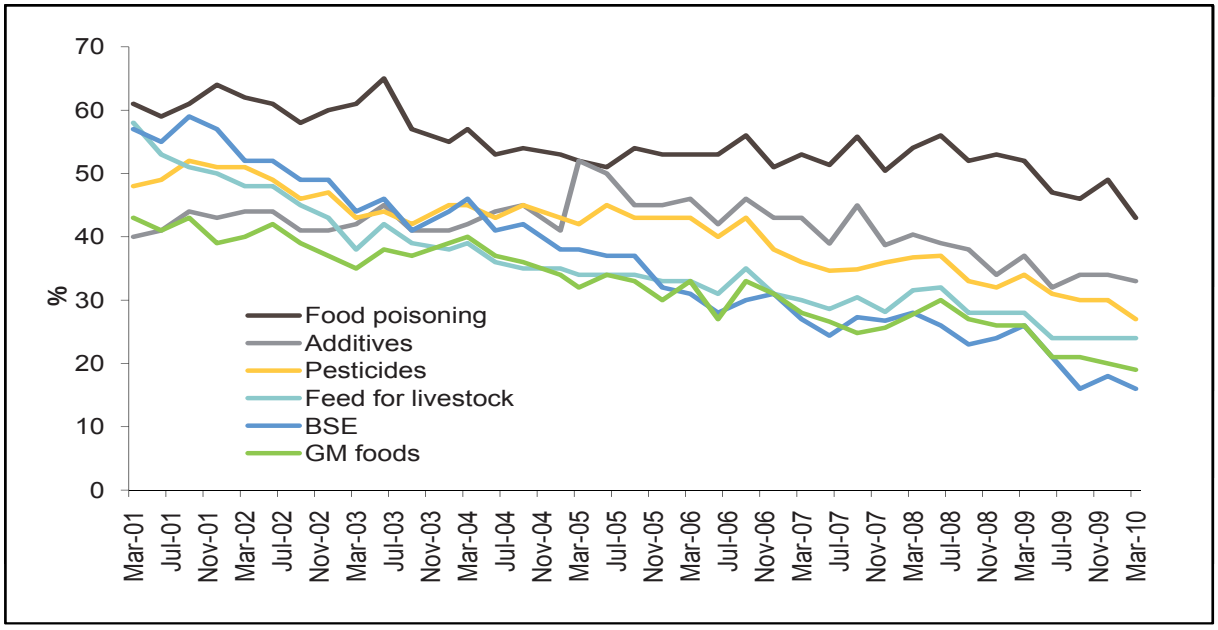
- 83% of respondents reported being aware of the hygiene standards of the places they eat or buy food from; the same figure as reported in December 2009. Of this 83%, general appearance of the premises (73%), appearance of the staff (59%) and reputation (50%) were the main ways in which these respondents reported being aware of the hygiene standards.

- Local Authorities deliver enforcement activities for food law on behalf of the Food Standards Agency. The Food Standards Agency sets and monitors standards and audits local authorities' activities.

[6] FSA has placed 6 questions on the TNS consumer face of the Omnibus Survey on a quarterly basis in order to monitor key Agency issues. Tracking began in 2001.
[7] Confidence figure is calculated using net of 'very confident' and 'fairly confident' responses.

Safety & Confidence

7.7: Trend in the percentage of people concerned about certain food issues, 2001-2010



Source: Quarterly Public Attitudes Tracker Survey (FSA)

- In March 2010 59% of people surveyed reported that they were concerned about food safety issues. This is a fall from 70% in December 2009.

- 43% were concerned about food poisoning such as salmonella and E.coli, a drop of 9 percentage points on March 2009 and 18 percentage points on March 2001 when the question was first asked.

- 33% were concerned about additives in food such as preservatives and colouring, a drop of 7 percentage points on March 2001.

- 16% were concerned about BSE[8], a drop of 41 percentage points on March 2001.

- 27% were concerned about the use of pesticides to grow food, 24% were concerned about the feed given to livestock and 19% were concerned about GM foods. Concern about all these issues has fallen since 2001.

[8] Bovine Spongiform Encephalopathy.