

Food Statistics Pocketbook 2013



in-year update



Department
for Environment
Food & Rural Affairs



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**Food
Statistics
Pocketbook
2013 - in year update**

Department for Environment, Food and Rural Affairs

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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 statistics for different time periods, but always using latest available data at the time of release.

Data comes from surveys run by Defra and the Office for National Statistics and from a wide range of other sources including government departments, agencies and commercial organisations. Links to data sources are included on every page.

An associated dataset containing all charts and key data sources from this year's publication is also available.

Data are a mixture of National Statistics, Official Statistics and unofficial statistics. Unofficial statistics are used where there are gaps in the evidence base. National Statistics (Official Statistics that comply with the national statistics code of practice) are indicated using the logo pictured here.

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



An in-year update published on April 24th 2014 revised the following:

Chapter 1: Food Chain

1.1, 1.2, 1.3, 1.4, 1.5, 1.7

Chapter 2: Prices and Expenditure

2.2, 2.5, 2.7

Chapter 3: Global and UK Supply

3.4, 3.5

Chapter 6: Dietary Health

6.2, 6.3, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12

Foreword

Related Defra publications:

- Family Food 2012
- Total Factor Productivity of the United Kingdom Food Chain
- Agriculture in the United Kingdom

Production team:

Janet Carr, David Lee, Andrew Scaife, Isabella Hayes

email: familyfood@defra.gsi.gov.uk

Tel: 01904 455067

Food Statistics team
Department for Environment, Food and Rural Affairs
Foss House, Kings Pool
1-2 Peasholme Green
York YO1 7PX

Summary

Economy

- The agri-food sector contributed £97.1 billion or 7.4% to national Gross Value Added in 2012, and 3.6 million or 13% of national employment in Q3 2013.
- Total Factor Productivity in the food sector (excluding agriculture) stabilised in 2012 having risen gradually since 2002.
- Beverages is the largest manufacturing group with a GVA of £5.3 billion in 2012; Alcoholic beverages contributed £4.1 billion (77%) of the total beverages GVA in 2012.

Food Supply & Prices

- Food prices have risen 12% in real terms since 2007 taking us back to the late nineties in terms of cost of food relative to other goods.
- Median income after housing costs fell 12% between 2002-03 and 2010-11 for low income decile households. In 2011-12, all other incomes groups saw decreases in median income of between 1% and 7%.
- Compared to the EU: Food prices rose 22% in the UK between 2007 and 2013 while rising only 12% in Germany and 13% in France.
- In 2012, 24 countries together accounted for 90% of UK food supply. Just over half of this (53%) was supplied domestically from within the UK.
- The total value of food and drink exports rose slightly in 2013 to £18.9 billion, £6.0 billion more than in 2005 measured in 2013 prices.

Summary

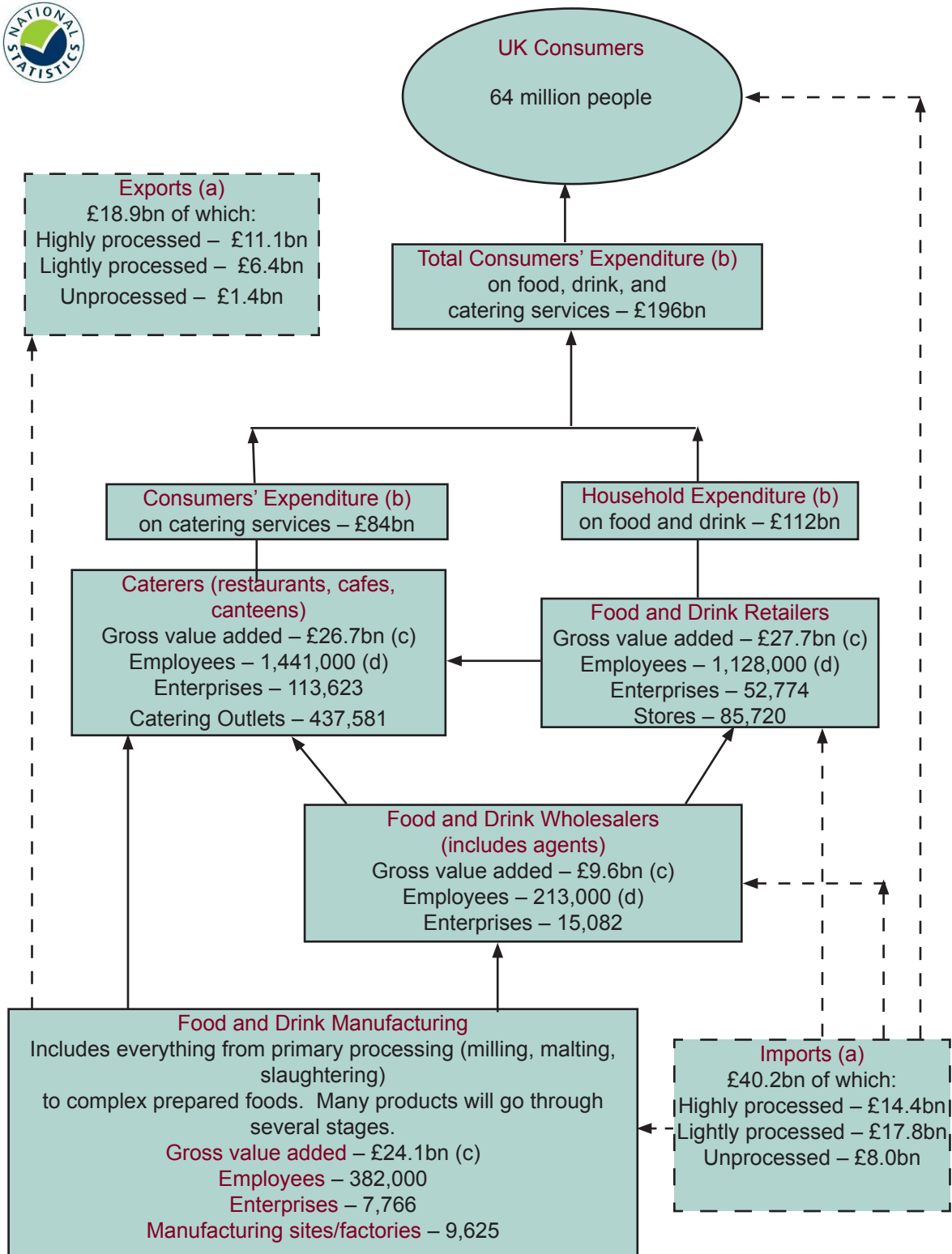
Environment and Waste

- Around 176 million tonnes of CO₂e were emitted within the UK from domestic food sector activity in 2011.
- Food manufacturing accounted for 15% of total energy use across the agri-food sector in 2011.
- Estimated total UK food and drink waste is around 15 million tonnes per year, with households generating 7.2mt/year of which 4.4 is avoidable (i.e. fit to eat).
- Overall 15% of edible food and drink purchases are wasted at an estimated cost of £480 per year for an average household.
- In 2012, over 5 million UK households received a food waste collection service, up by around 1 million on 2011. This equates to nearly 20% of all households in the UK (in 2012).

Health & Food Safety

- Fruit and vegetable consumption is falling. The lowest 10% of households by income purchase the least fruit and vegetables at an average of 2.9 portions per person per day in 2012, 14% less than in 2007.
- In England in 2011 the obesity rate across all adults was 25%, with a further 37% overweight.
- Estimates suggest around a million cases of foodborne illness in the UK each year, resulting in 20,000 hospital admissions and 500 deaths.
- The FSA dealt with six high level incidents in 2012, including; outbreaks of listeria and E.coli in Northern Ireland, fraudulent export of fish by-products, an outbreak of botulism linked to olives from Italy and contamination of sorbitol with sodium nitrite.
- In May 2013 the main food issue of concern to respondents was food prices at 59%, decrease from 63% in May 2012.

Chapter 1: Food Chain



Food Chain

1.1: Economic summary of the UK food chain beyond agriculture¹

(a) Overseas trade data is provisional for full year 2013 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 2013 and is calculated at current prices. (Data may not equal total due to rounding).

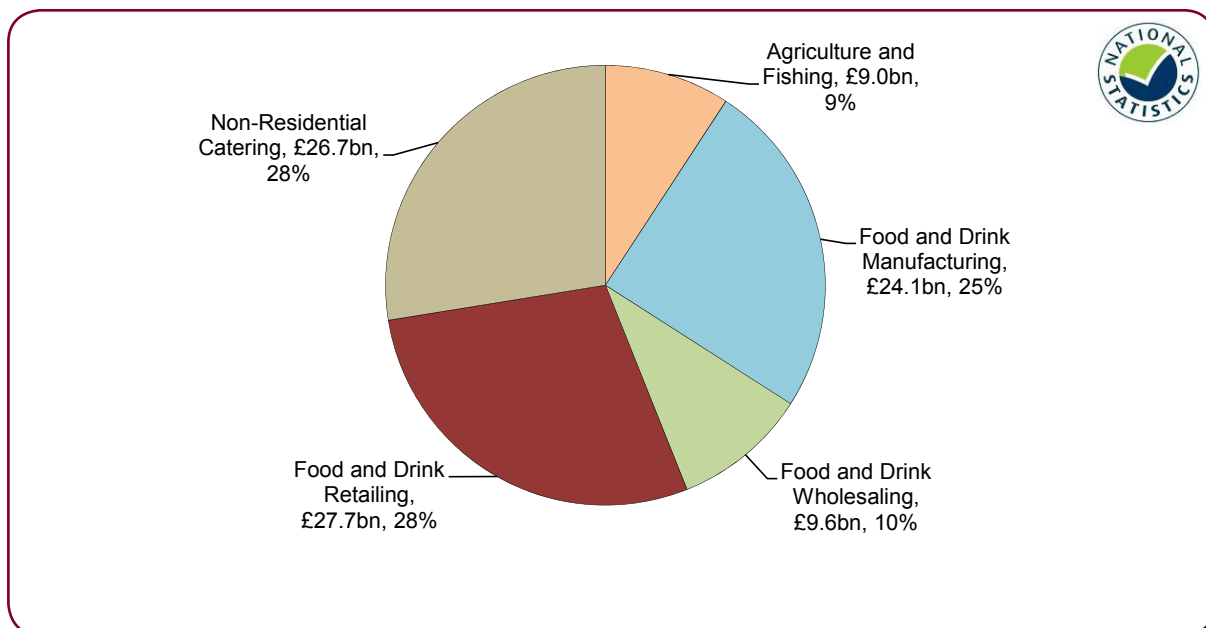
(c) Gross Value Added (GVA) is the difference between the value of goods and services produced and the cost of raw materials and other inputs used up in production. GVA figures are from the Annual Business Survey and is provisional data for full year 2012, calculated at basic prices (market prices less taxes plus subsidies).

(d) Employee data for grocery retailers is for Great Britain only and is for Q3 2013 from the Office for National Statistics Labour Force Survey. Food and drink wholesaling, and agricultural wholesaling includes an estimate of employment by food and drink wholesaling agents, and wholesalers of agricultural machinery from the Annual Business Survey. (Employee data is rounded).

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, 2012



Source: Annual Business Survey (ONS)² & Agriculture in the United Kingdom (Defra).

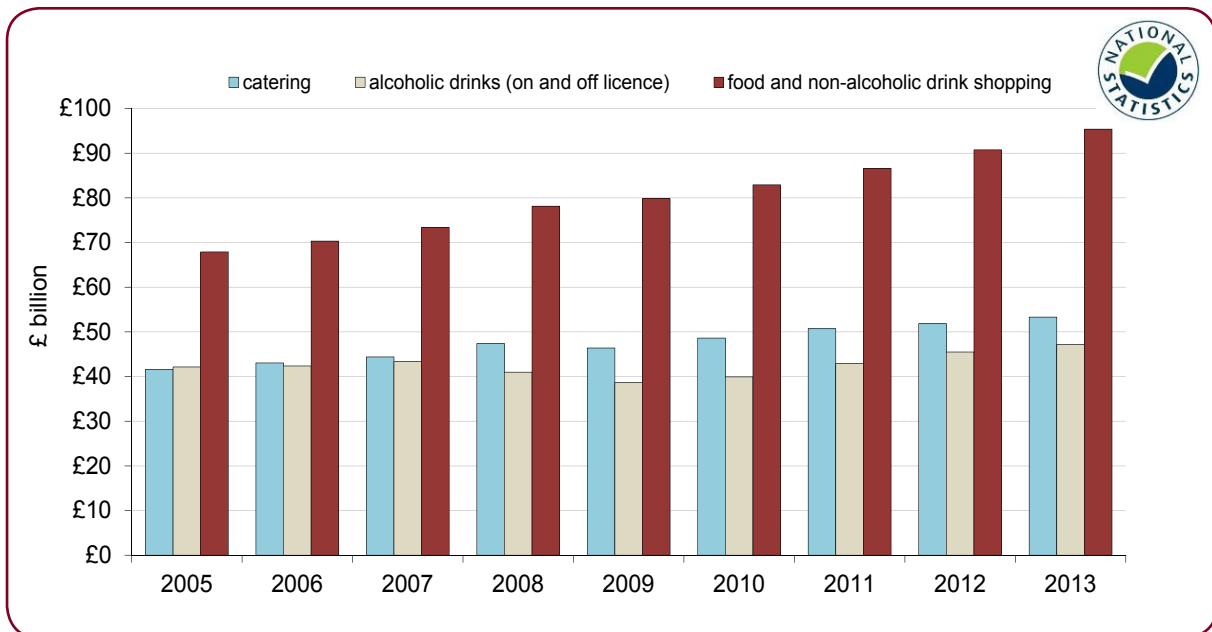
- The agri-food sector contributed £97.1 billion or 7.2% to national Gross Value Added in 2012, an increase of 0.7% on 2011.
- The GVA of the food sector (excluding agriculture) increased 1.0% in 2012, following a 6.2% increase in 2011. Non-residential catering showed the greatest increase at 6.5% followed by retailing at 3.0%. The manufacturing sector showed a decrease in GVA in 2012 of 6.1%.
- Longer term, the food sector (excluding agriculture) increased by 51% between 2000 and 2012 while the whole economy increased by 57%. The food sector has less scope for growth as there is a limit to consumer intake capacity and therefore it relies largely on quality improvements.
- There was a net decrease in registered enterprises in the food sector of 970 in 2012 following a net increase of over 2500 in 2011, with most changes in non-residential catering³. There was a net increase of around 300 enterprises in the food manufacturing sector.

² 2012 figures are provisional.

³ Business Demography, Enterprise Births, Deaths and Survivals, ONS 2013.

Food Chain

1.3: UK Consumer expenditure on food⁴, drink and catering



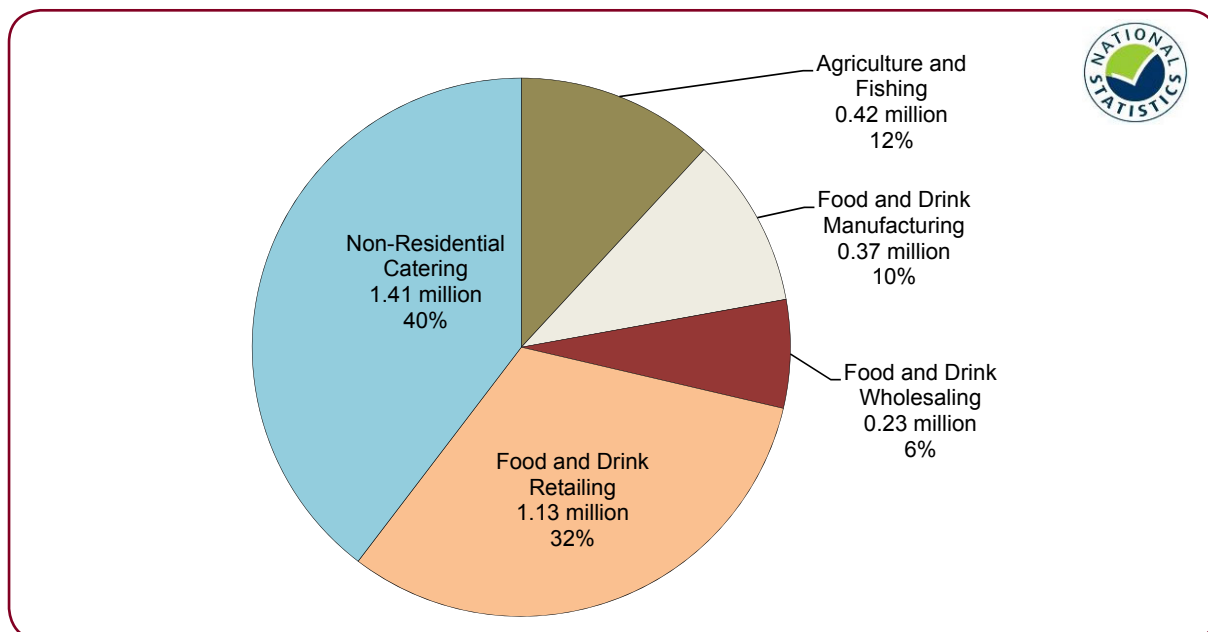
Source: Consumer Trends (ONS).

- Consumer expenditure on food, drink and catering has continued to rise despite the economic downturn. There was a rise of 4.2% in 2013 to £196 billion.
- In 2013 expenditure on food (including non-alcoholic drinks) showed the largest increase, up 5.1%, while spend on alcoholic drinks increased 3.7% and catering increased 2.9%.
- Spend on food shopping has increased 30% since 2007 and accounted for almost half of spend (49%) in the sector in 2013. Spend on catering accounted for 27% of sector spend in 2013 and has increased by 20% since 2007.
- Spend on all alcoholic drinks accounted for 24% of sector spend in 2013 and had the lowest overall increase since 2007 at 8.9%. Spend reduced between 2007 and 2009, but increased yearly thereafter.

⁴ 'Food' includes non-alcoholic drinks. 'Drink' is alcoholic drinks.

Food Chain

1.4: Agri-food sector employees (GB)⁵, Q3 2013



Source: Labour Market Statistics (ONS)⁵ and June Survey (Defra).

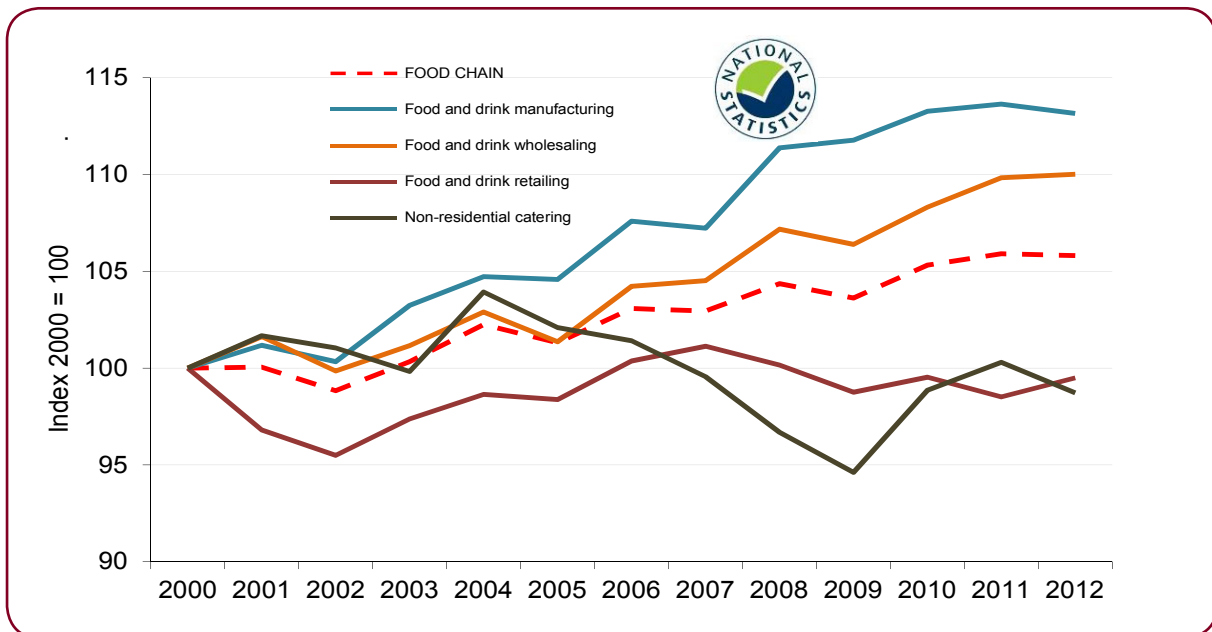
- The food sector in GB employed 3.1 million people in Q3 2013 (3.6 million if agriculture and fishing are included along with self employed farmers), virtually unchanged on Q3 2012. It covered 12% of GB employment in Q3 2013 (13% if agriculture and fishing are included along with self employed farmers).
- Non-residential catering is the largest food sector accounting for 45% of the total (excluding agriculture). Employment in this sector hit a low in Q1 2013 and despite some subsequent increase has 12,000 fewer employees than in Q3 2012.
- The retailing and wholesaling sectors saw decreases of 0.6% and 0.4% respectively between Q3 2012 and Q3 2013 while the manufacturing sector was unchanged.
- Women accounted for 57% of employees in food retailing and 52% in non-residential catering in September 2013. Men accounted for 65% of employees and 69% of hours worked in food manufacturing. In Q3 2013, 50% of food sector jobs were part time.

⁵ Data for the food sector is not available for Northern Ireland, but numbers are likely to be small.

⁶ Wholesaling, manufacturing and retailing include tobacco.

Food Chain

1.5: Trends in the total factor productivity⁷ of the UK food sector⁸



Source: Total Factor Productivity of the United Kingdom Food Chain 2000-2012, Defra, January 2014.

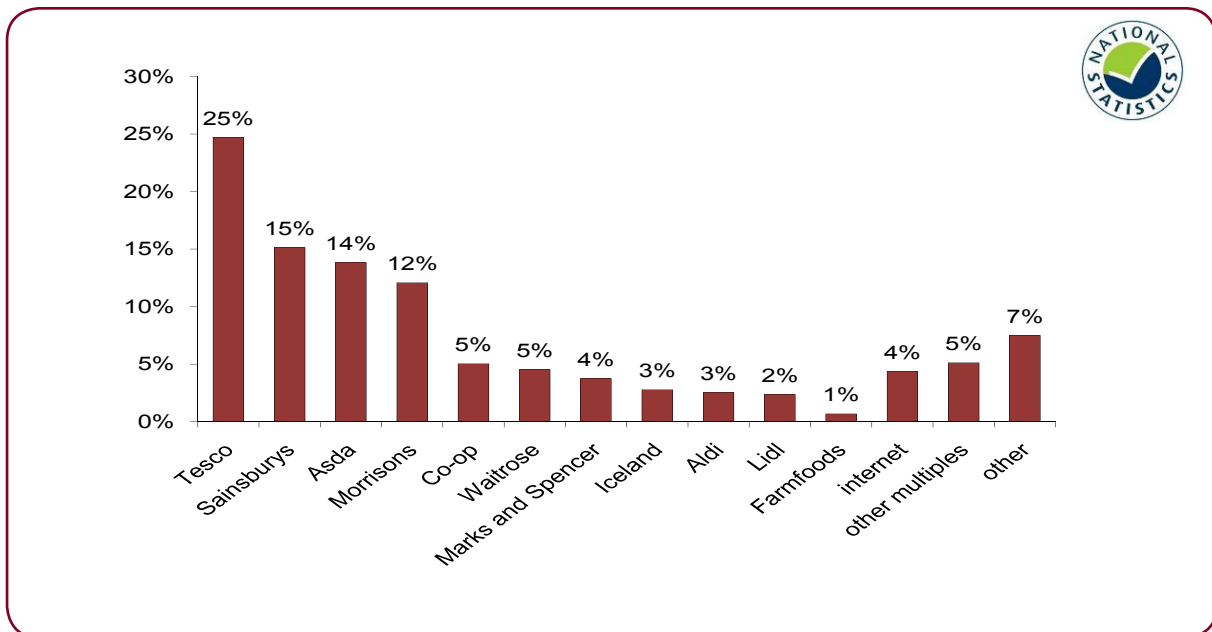
- Total factor productivity (TFP) of the food sector excluding agriculture stabilised in 2012, having risen gradually since 2002.
- The (TFP) of the UK food sector is an indicator of the efficiency and competitiveness of the food industry within the UK. An increase in TFP indicates the industry is improving its competitiveness.
- Since 2000, productivity of food manufacturing and food wholesale have risen overall; food retailing and non-residential catering have fluctuated but in 2012 have returned to around base levels.
- Benchmarking against a wider economy measure shows the average annual growth in the food sector between 2002 and 2012 was 0.7% compared to 0.2% in the wider economy.
- The calculation is based on reliable data on business sales and costs, employment by industry and on price indices all collected by the Office for National Statistics.

⁷ See Glossary for definition of Total Factor Productivity.

⁸ Wholesaling includes tobacco (SIC 46.35)

Food Chain

1.6: UK grocery market shares 2011



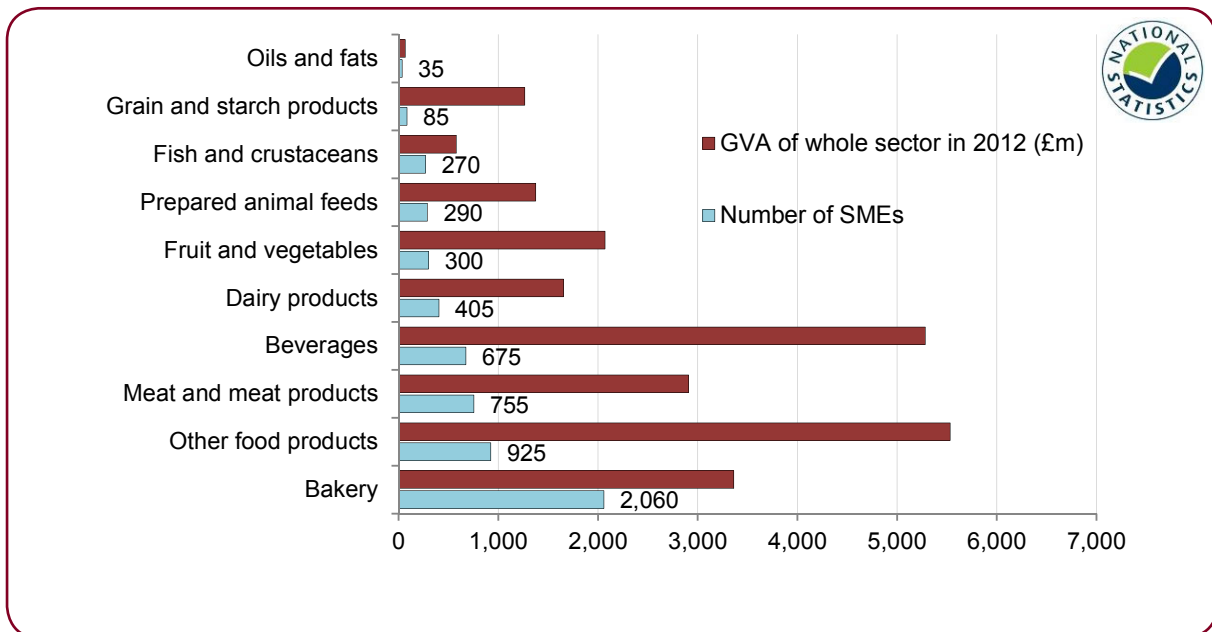
Source: Living Costs and Food Survey (LCFS) 2011, (Defra/ONS).

- The combined market share of food and non-alcoholic drinks of the largest four food and drink retailers increased 4 percentage points to 66% in 2011. Tesco commanded the largest market share at 25%. Of the largest four retailers, only Morrisons failed to show an increased share on 2010.
- Internet food shopping increased to a new high of 4.4% of sales of food and non-alcoholic drinks in 2011, from 3.1% in 2010.
- Data comes from the Living Costs and Food Survey which is fully representative of UK household food shopping.
- Alternative market share estimates for 2013 from the Kantar Worldpanel⁹ are more up to date although not restricted to foods and not as representative. In 2013 compared to 2012 (based on 12 weeks ending 9 June) Kantar Worldpanel indicates some polarisation of the market with Aldi, Lidl and Waitrose gaining share from the big four retailers.

⁹ Kantar Worldpanel is a market research company, providing up to date statistics on sales by the grocery sector. Market shares also include sales of non-food.

Food Chain

1.7: UK food and drink manufacturing by product type¹⁰



Source: Annual Business Survey (ONS), Business Population Estimates (BIS).

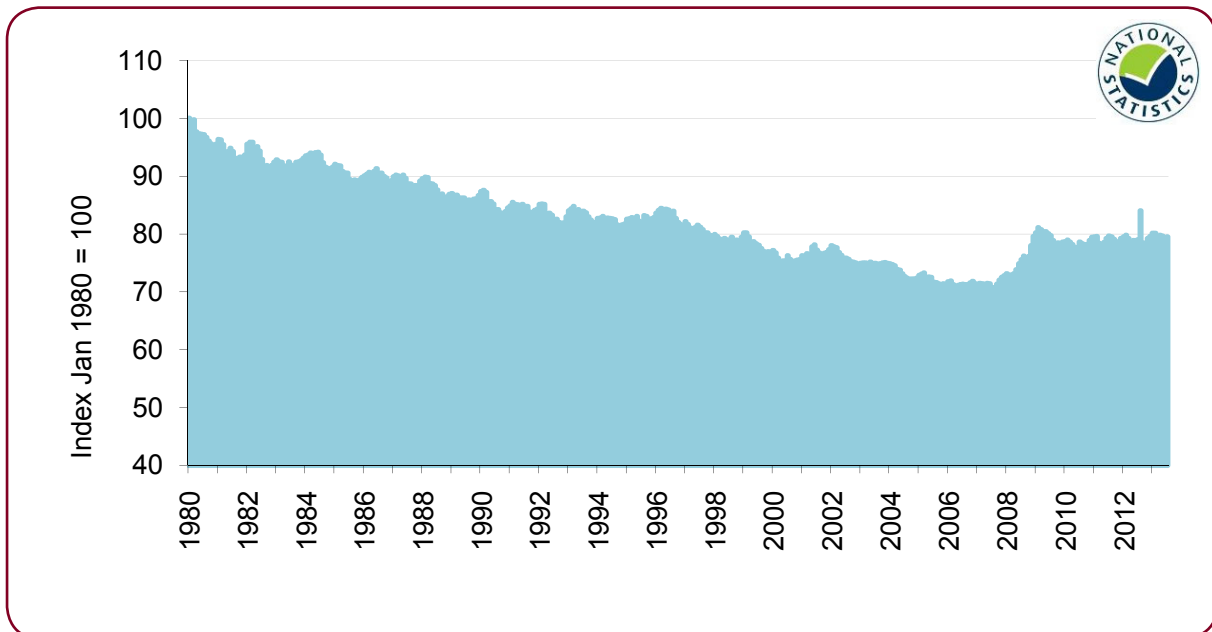
- There were approximately 5800 small and medium sized enterprises¹¹ (SMEs) in the food and drink sector with turnover of nearly £22 billion and 123,000 employees at the start of 2013.
- In the food sector (excluding beverages) SMEs accounted for 30% of employment and 26% of turnover.
- Of the 5800 SMEs, more than a third (36%) are manufacturers of bakery and farinaceous products.
- Beverages (including soft drinks and mineral water), is the largest manufacturing group with a Gross Value Added (GVA) of £5.3 billion in 2012; contributing 22% to the total food and drink manufacturing GVA.
- Alcoholic beverages contributed £4.1 billion (77%) of the total beverages GVA in 2012, a fall of 21% on 2011.

¹⁰ For disclosure reasons some small contributions (less than 4% overall) to food and drink manufacturing GVA have been treated as zeros.

¹¹ Includes businesses classed as 'micro'. See Glossary for a more detailed definition.

Chapter 2: Prices & Expenditure

2.1: UK trend in food prices in real terms, January 1980 to July 2013¹



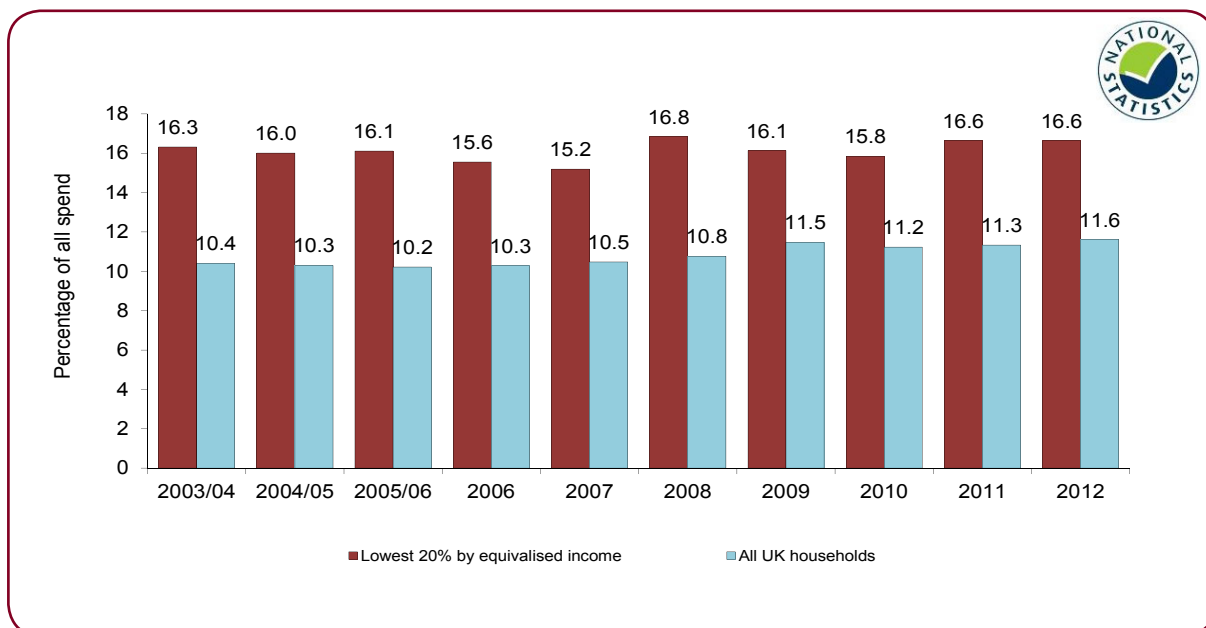
Source: Consumer Price Indices (ONS).

- Food prices have risen in real terms by 12% since 2007, following a long period in which they fell.
- Recent price rises have taken us back to the late nineties in terms of the cost of food relative to other goods.
- Successive spikes in the price of agricultural commodities since 2007 have led to higher retail food prices. They have not returned to low price levels of pre-2007.
- Oil prices also rose over this period, and inflation was higher than historically, but food prices have risen above inflation.
- Those on lower incomes tend to buy different food items to those on average or high incomes but food prices for these different shopping baskets have risen at about the same rate.
- A rise in food prices is more difficult for low income households to cope with because those on low incomes spend a greater proportion of their income on food - a rise in food prices has a disproportionately large impact on money available to spend elsewhere.

¹ Excludes alcoholic drinks and catering.

Prices & Expenditure

2.2: Trend in share of spend going on food and drink² in low income and all UK households, 2003-04 to 2012



Source: *Living Costs and Food Survey (Defra/ONS). Family Spending table 3.2e (ONS).*

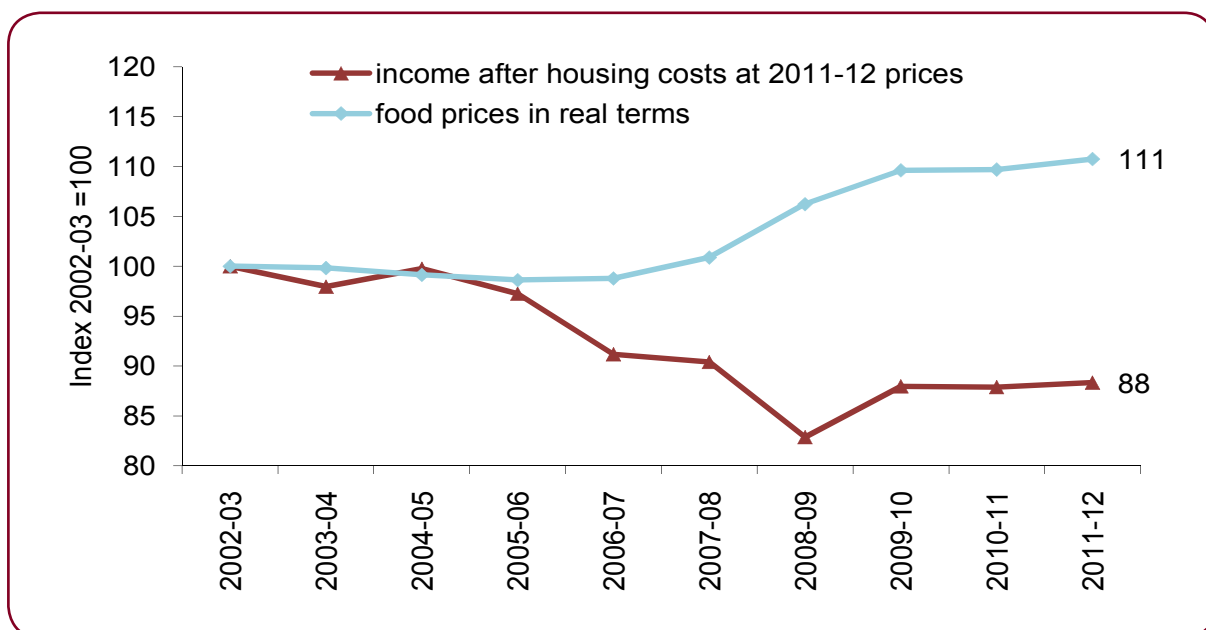
- The relative affordability of food can be measured by the share of the household budget that goes on food. Low income households are of particular concern as they tend to have a greater percentage of spend going on food.
- Food is exerting greater pressure on household budgets since 2007 when food prices started to rise in real terms.
- Averaged over all households 11.6% of spend went on food in 2012, 1.1 percentage points above the 2007 level.
- For households in the lowest 20% by equivalised income 16.6% of spend went on household food, 1.4 percentage points above 2007 but unchanged on 2011.
- In 2012, the energy content of household food purchases in income decile 2 was 9.0% lower than in 2007 at 2024 Kcals/person/day; in decile 1 the energy content was 3.0% lower than in 2007 at 1862 Kcals/person/day.

² Excludes alcoholic drinks.

³ See Glossary for definition of equivalised income.

Prices & Expenditure

2.3: Income decline after housing costs, low income⁴ decile (UK)



Source: *Living Standards, Poverty and Inequality in the UK, 2013*; Institute for Fiscal Studies.

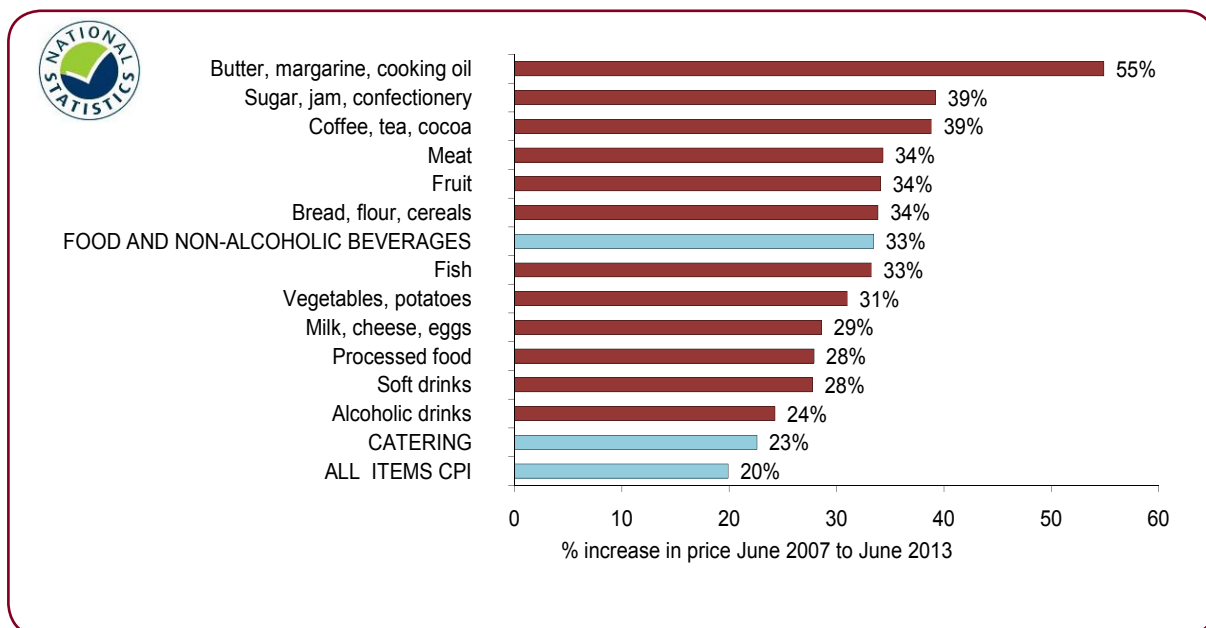
- Median income after housing costs fell 12% between 2002-03 and 2010-11 for low income decile households. The lowest point was reached in 2008-09 followed by a small recovery in 2009-10. Since then, median income levels in this group have been virtually unchanged.
- In 2011-12, all other income groups saw decreases in median income of between 1% and 7%, with only the highest income group remaining above the 2002-03 level.
- Falling income (after housing costs) and rising food prices produced a double effect, reducing food affordability by over 20% for lowest income decile households.
- The most commonly used threshold of low income in the UK is having an income which is less than 60% of the median. In 2011-12 the percentage of individuals in relative low income (before housing costs) was 16%⁵. This level remains static as incomes near the bottom of the distribution fell by roughly the same as those at the median.

⁴ See Glossary for definition of Low income.

⁵ Households Below Average Income, ONS June 2013.

Prices & Expenditure

2.4: UK retail price changes by food group, 2007 to 2013



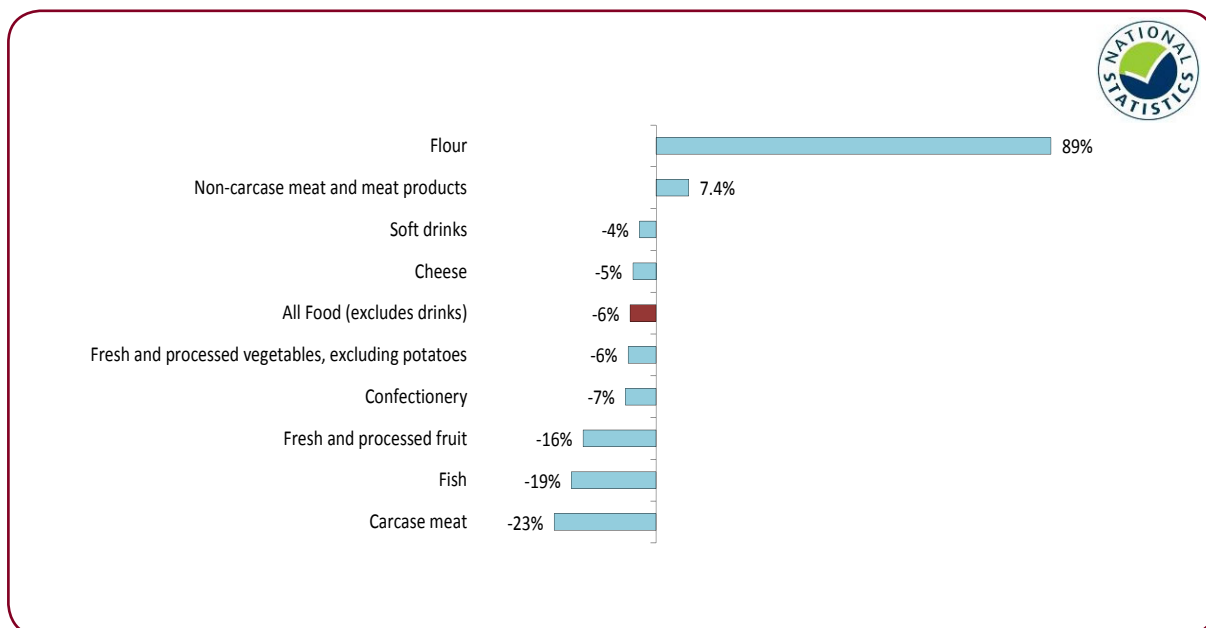
Source: Consumer Price Indices (ONS).

- All food groups have risen in price since 2007 (the start of the recession), with rises ranging from 24% to 55%. Food prices overall (including non-alcoholic drinks) rose 11% in real terms between 2007 and 2013.
- Butter, margarine and cooking oils increased the most since June 2007 and rose 5.2% in the year to June 2013.
- Prices for fish, fruit and vegetables, bread and meat have all risen by more than 30% since June 2007. In the year to June 2013, fruit and vegetable prices showed the greatest increases at 7.5% and 5.2% respectively.
- Food price rises had a strong effect on food shopping for low income households. Households in income decile 1 (lowest income group) bought less butter, fruit, vegetables and soft drinks, but bought more pork, bacon and cheese⁶.

⁶ Family Food in 2011, Defra, December 2012.

Prices & Expenditure

2.5: Percentage change in food purchases 2007-2012, in low income households (UK)



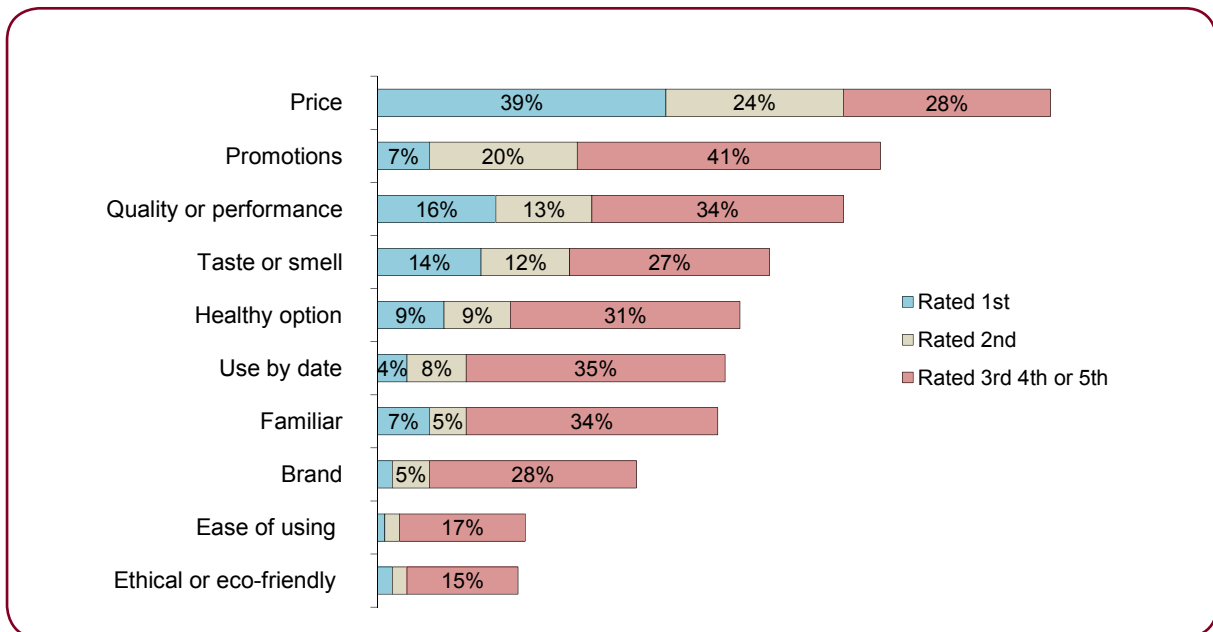
Source: *Family Food in 2012*, Defra.

- In 2012 compared to 2007, the lowest income households (equivalised income⁷ decile 1) purchased 23% less carcass meat, 19% less fish and 16% less fruit. They also bought less confectionery (-7%), vegetables (-6%), cheese (-5%) and soft drinks (-4%).
- Purchases of flour increased significantly (89%) between 2007 and 2012 and purchases of non-carcass meat and meat products increased 7.4%.
- Between 2007 and 2012, average households traded down to cheaper products to save nearly 6% while the lowest income households traded down to a much lesser extent, possibly as they were already buying cheaper products.
- Food is the largest item of household expenditure for low income households after housing, fuel and power costs.

⁷ See Glossary for definition of equivalised income.

Prices & Expenditure

2.6: Factors influencing consumer product choice⁸



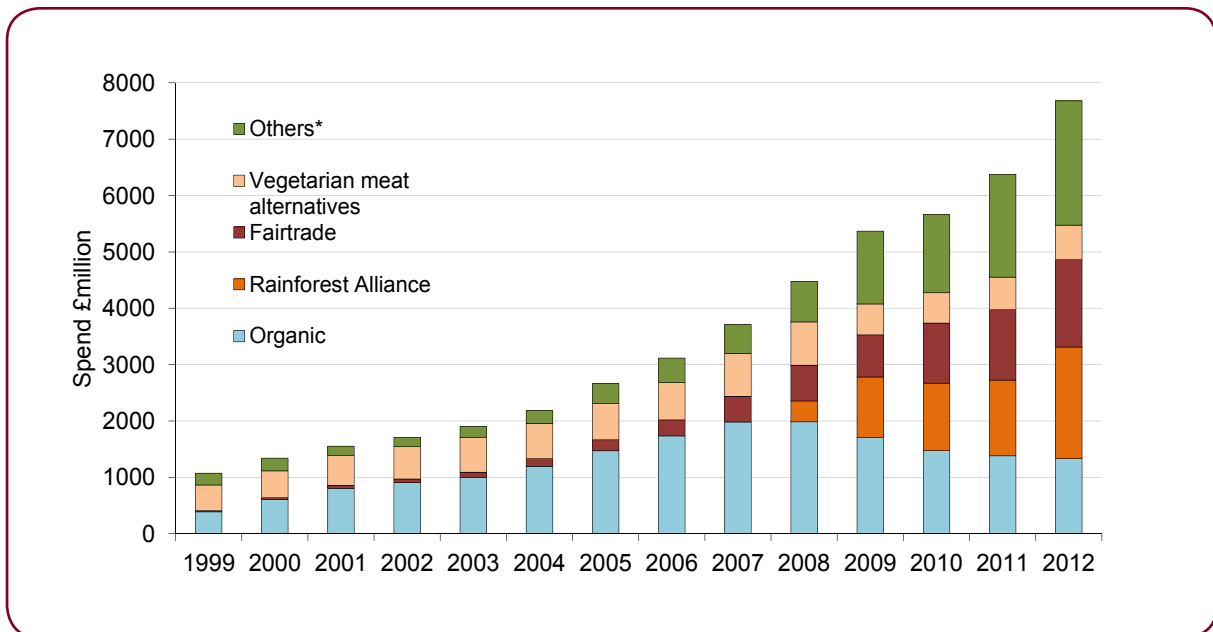
Source: IGD ShopperVista 2013.

- Price is increasingly important in driving product choice, with 39% of shoppers naming it as the most important factor and more than 90% listing it within their top five influences.
- Quality was rated as the highest influence by 16% of respondents, followed by taste or smell that was rated highest by 14%.
- Promotions are highly influential with 68% listing it in the top 5 factors, although just 7% rated it as the most important, the same proportion as familiarity.
- Less importance is placed on healthy options, with only 9% of shoppers naming it as the most important influence.
- Brand names still have a sway in many purchase decisions, with 38% of shoppers naming in their top 5 influences.
- Ethically produced products were considered least important with 18% of shoppers naming it in their top 5 influences.

⁸ IGD ShopperVista 2013, base: all main shoppers, fieldwork July 2013. Sample is managed to be representative of main grocery shoppers but may contain unquantifiable biases.

Prices & Expenditure

2.7: UK trend in sales of ethical produce



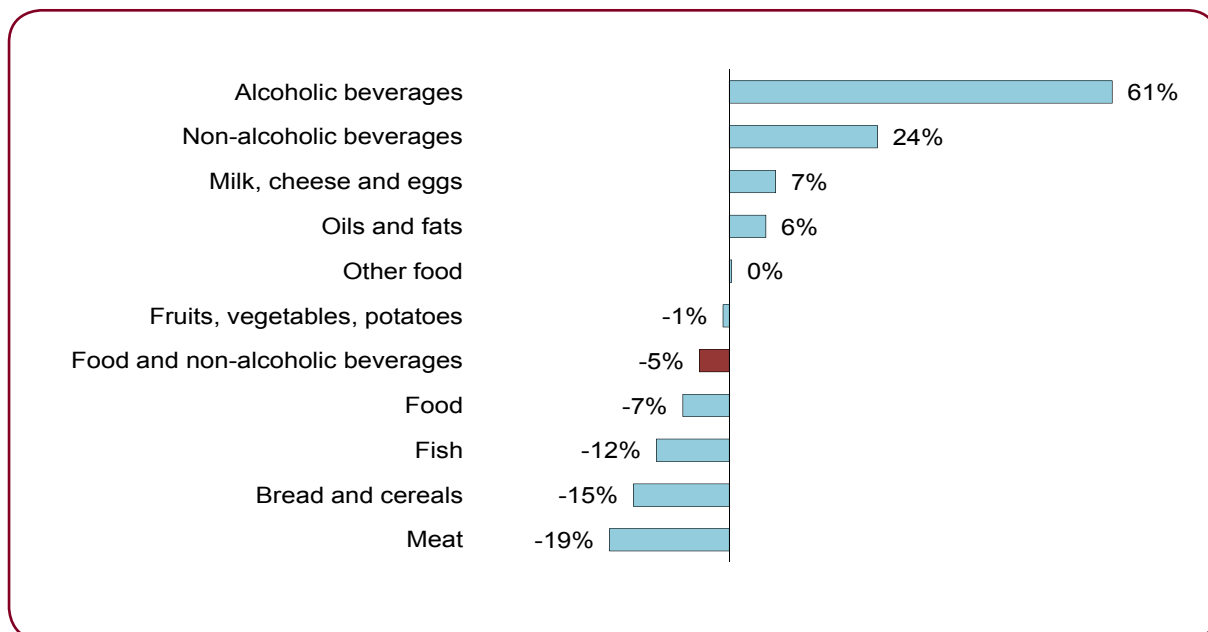
Source: Ethical Consumer Markets Report 2013. Ethical Consumer Research Association.

- Sales in “ethical” food and drink, including organic, fair-trade, free range and freedom foods rose to £7.7 billion in 2012⁹, 8.5% of all household food sales.
- Sales of ethical produce have increased year on year since 2007, despite the economic downturn.
- Rainforest Alliance made up the largest share in 2012, accounting for 19% of the total ethical food sector at £2.0 billion; an increase of 47% on 2011. Fairtrade and organic products are the next largest contributors at 15% (£1.6 bn) and 13% (£1.3 bn).
- Yearly decreases in sales of organic food and drink have led to an overall decrease of 33% since their peak in 2008.
- Sales of sustainable fish rose by 20% in 2012 to £0.4 billion.
- Figures are determined by the Ethical Consumer Market Report by The Ethical Consumer Research Association based on administrative data held by ethical labelling organisations, trade associations and market research data.

⁹ Excludes food and drink boycotts.

Prices & Expenditure

2.8: Food prices in the UK compared to France



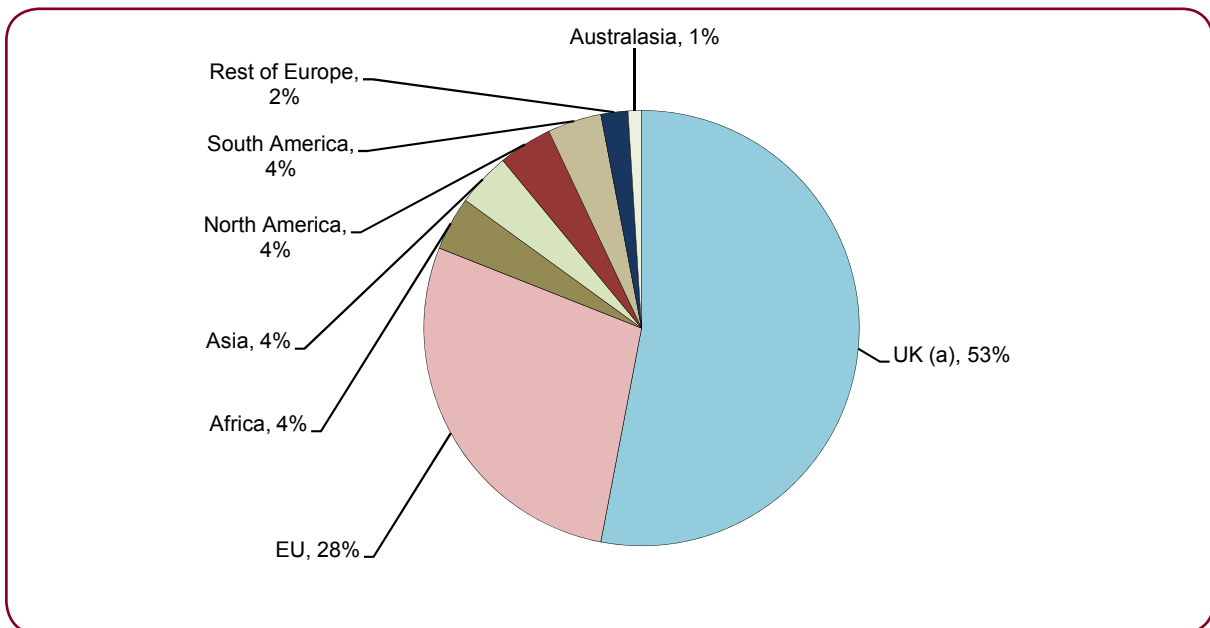
Source: Eurostat.

- Based on purchasing power parities¹¹, food and non-alcoholic drinks were 4.8% cheaper in the UK than in France in 2012.
- Alcoholic beverages were 61% more expensive in the UK than in France, with prices in the UK highest in the EU apart from Turkey, Ireland and the Scandinavian countries.
- Bread and cereals were the cheapest comparison, with prices in the UK 15% cheaper than in France.
- Fruit and vegetables including potatoes were 19% more expensive in the UK than the EU average but slightly cheaper than in France.
- Norway and Switzerland were more expensive for fruit and vegetables than any EU countries.
- Food prices rose 22% in the UK between January 2007 and May 2013 while rising only 12% in Germany and 13% in France. Averaged across the EU, food prices rose 17% over the same time period.

¹¹ Purchasing power parities compare prices in different countries after removing the effects of exchange rate differences.

Chapter 3: Global & UK Supply

3.1: Origins of food consumed in the UK, 2012¹



Source: Defra.

(a) Consumption of UK origin consists of UK domestic production minus UK exports

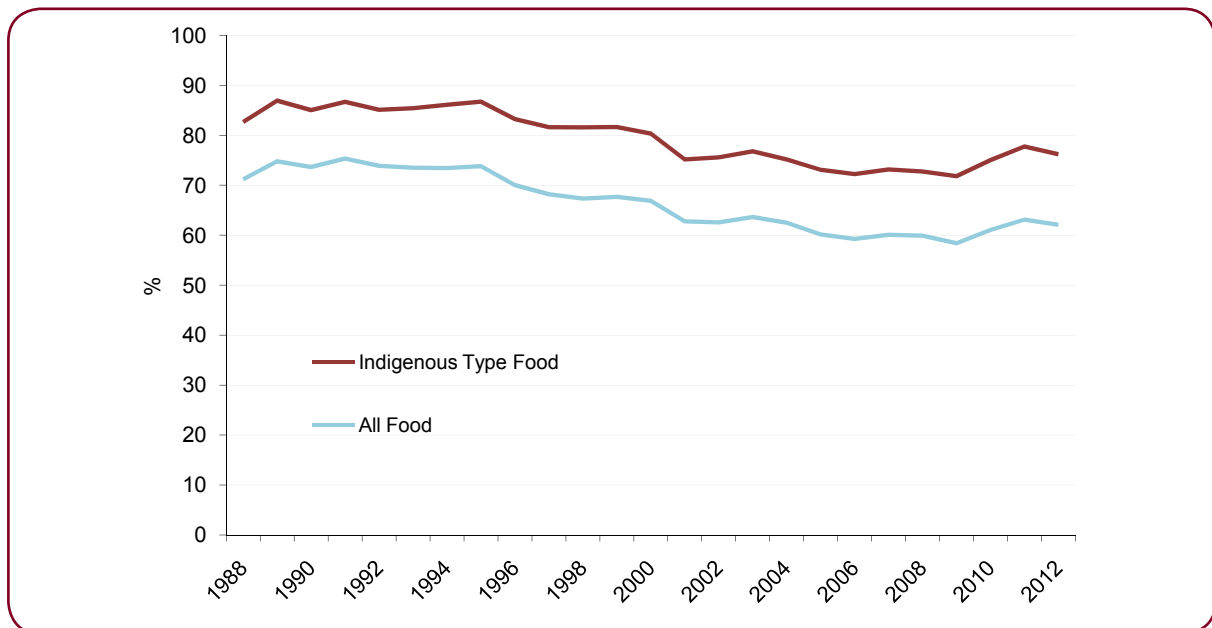
- Sourcing food from a diverse range of stable countries, in addition to domestically, enhances food security².
- Based on the farm-gate value of unprocessed food;
 - Twenty four countries accounted for 90% of UK food supply in 2012. The UK supplied over half (53%). The leading foreign suppliers were the Netherlands (5.9%), Spain (5.0%), France (3.5%), Irish Republic and Germany (2.9% each).
 - Three countries accounted for 90% of dairy product and egg supply (UK supplied 82%).
 - Three countries accounted for 90% of meat and meat preparation supply (UK supplied 83%).
 - Twelve countries accounted for 90% of supply of cereals and cereal preparations (including rice). The UK supplied 54%.
 - Twenty five countries accounted for 90% of fruit and vegetable supply (UK supplied 23%).

¹ 2012 figures are final.

² UK Food Security Assessment, January 2010 (Defra).

Global & UK Supply

3.2: UK Food production to supply ratio, 1988-2012

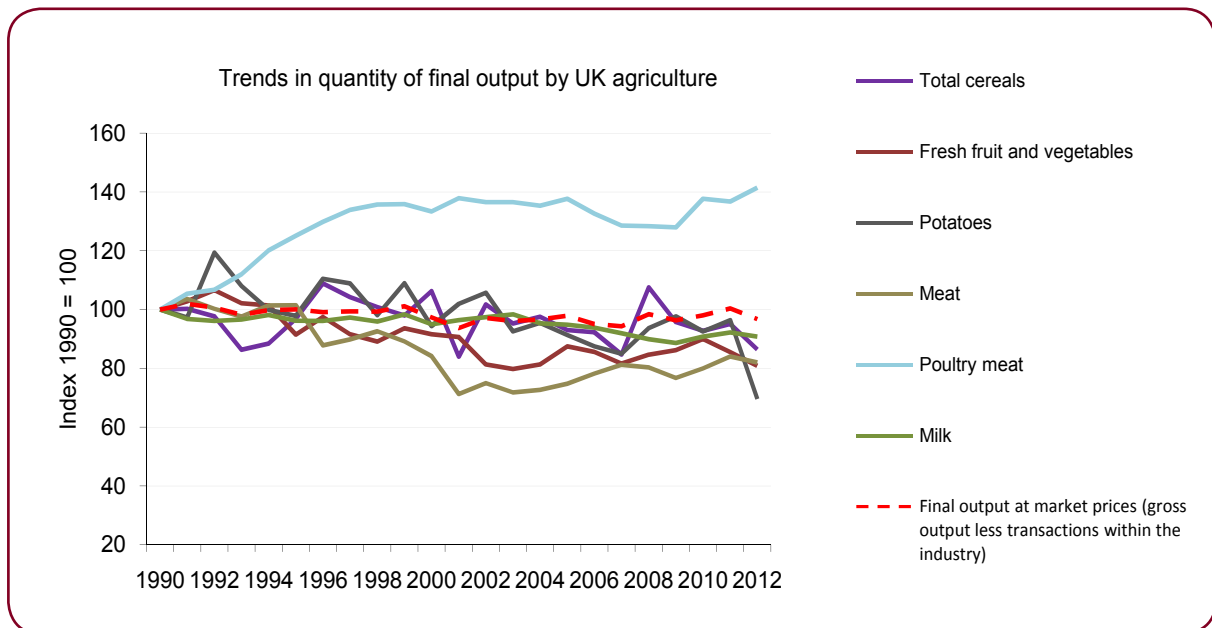


Source: *Agriculture in the United Kingdom 2011*, Defra.

- Food Production to Supply Ratio is calculated as the farm-gate value of raw food production (including for export) divided by the value of raw food for human consumption. It provides a broad indicator of the ability of UK agriculture to meet consumer demand.
- A high production to supply ratio fails to insulate a country against many possible disruptions to its supply chain.
- The ratio in 2012 was 62% for all food and 76% for indigenous type food. This compares with 63% and 78% respectively in 2011.
- In 2012, the overall value of UK food production remained static. Increased imports of feed and seeds led to a slight decrease in the adjusted home production value, resulting in the slight decrease in the ratio on 2011.
- In 2012, poor weather had a heavy impact on the UK wheat crop leading to increased imports of milling quality wheat and a 10% decrease in the value of UK production.
- Production potential is more relevant at EU level than United Kingdom level, and the EU as a whole has a food production to supply ratio of around 90%.

Global & UK Supply

3.3: Trends in UK food production³



Source: *Agriculture in the United Kingdom 2011*, Defra.

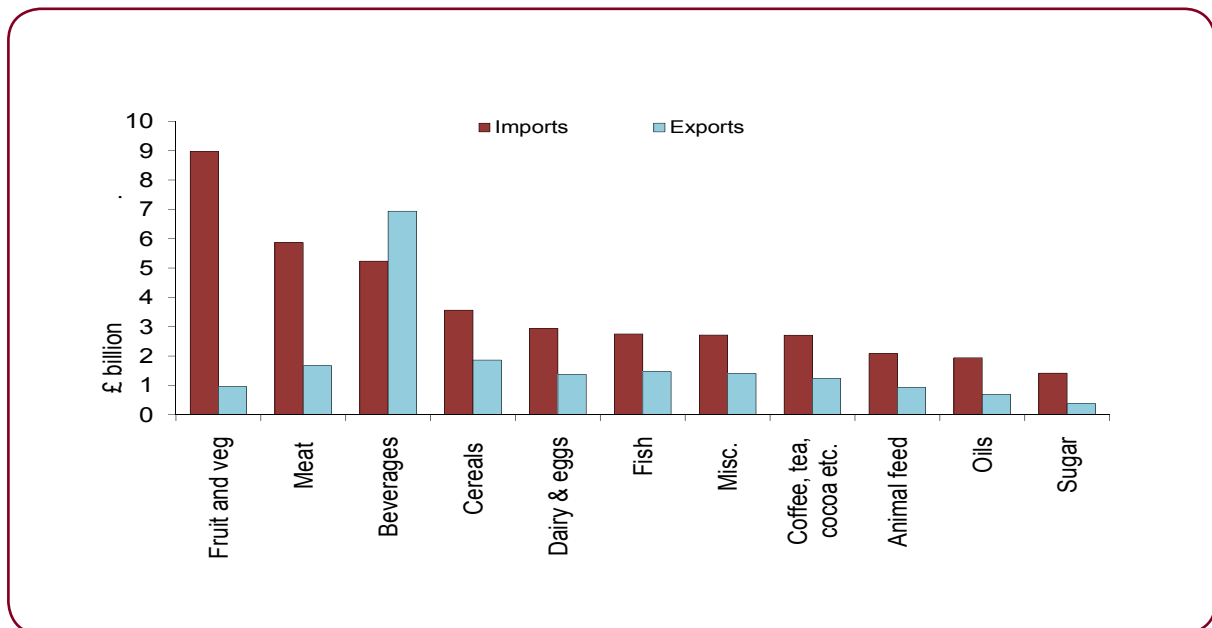
- Final output⁴ of UK agriculture is a proxy for UK food production. It fell by 3.7% in 2012 due to lower volumes of outputs as a result of the poor weather conditions. Longer term trends have shown little variation.
- Total UK cereal production has fluctuated, with significant dips in 2001, 2007 and 2012 linked to adverse weather conditions.
- Since 1990 there have been large increases in production levels of poultry meat, part of a longer term upward trend since the late 1970's. Although production dipped during the 2000's, it reached a record level in 2012 with steady growth in broiler, turkey and boiling fowl meat production.
- 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.

³ 2012 figures are provisional.

⁴ Gross output less transactions within the industry.

Global & UK Supply

3.4: UK trade in different food groups, 2013⁵



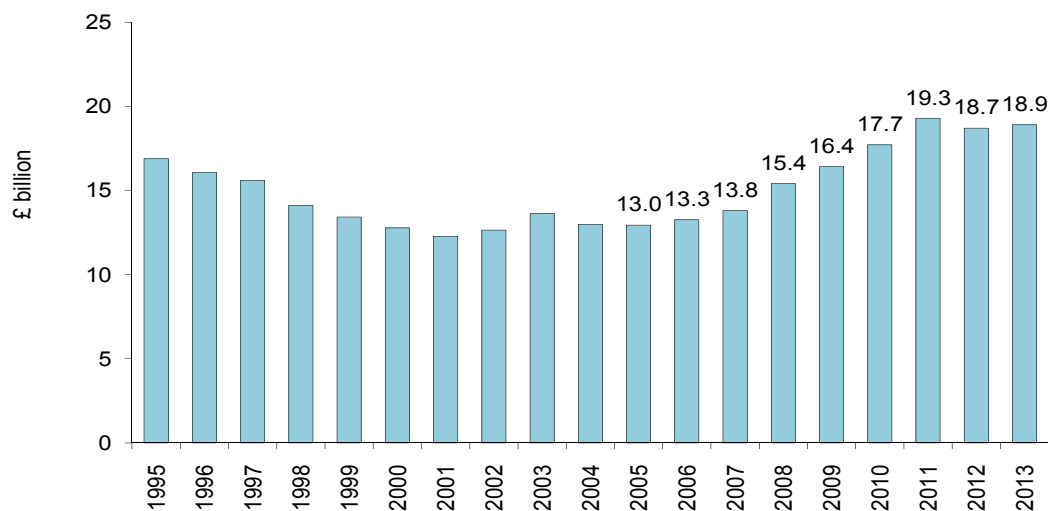
Source: HM Revenue and Customs.

- The value of imports is greater than the value of exports in each of the broad categories of food, feed and drink except 'Beverages' which had a trade surplus of £1.71 bn in 2013, largely due to exports of Scotch Whisky.
- Beverages are the largest export category by far with an export value of £6.9 bn in 2013. Exports (at 2013 prices) rose 25% between 2009 and 2011, due largely to increases in the existing markets. Decreases between 2011 and 2013 have reduced the export value by 3.8% (£277 million).
- Cereals is the second largest export group with a value of £1.9 bn, followed by the meat and fish categories at £1.7 and £1.5 bn respectively.
- 'Fruit and vegetables' has the largest trade deficit. In 2013 imports cost £9.0 bn while exports were worth £1.0 bn, giving a trade gap of £8.0 bn.
- The second largest groups in terms of imports in 2013 were meat and beverages with imports of £5.9 and £5.2 bn respectively.

⁵ 2013 figures are provisional.

Global & UK Supply

3.5: Trend in exports of food, feed and drink⁶



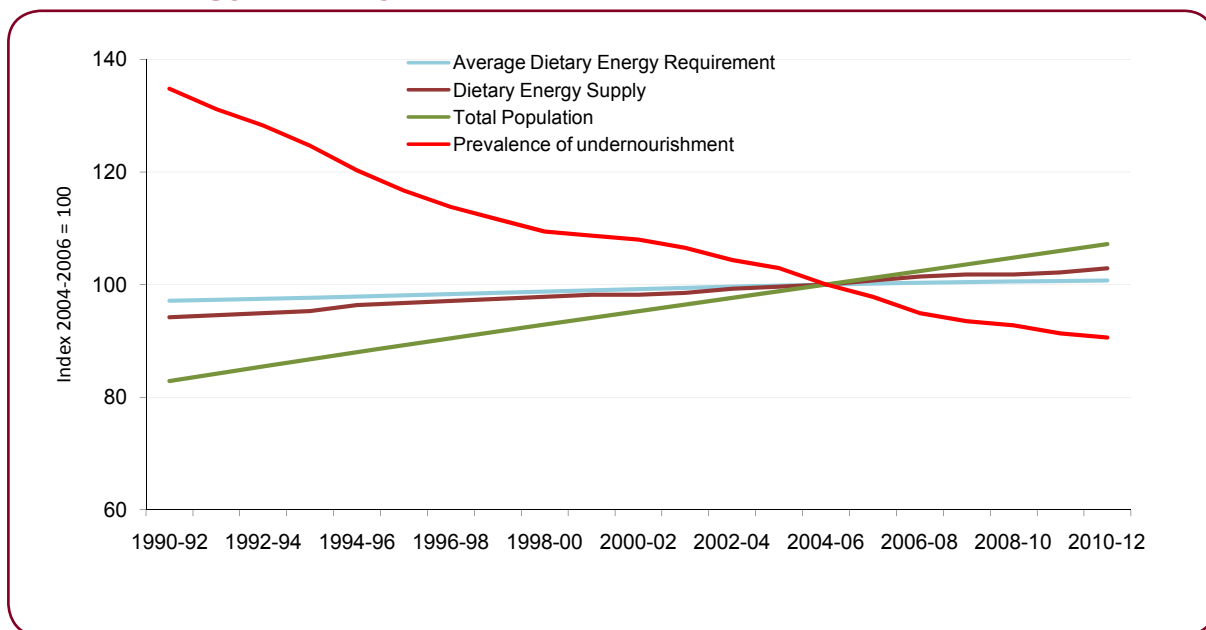
Source: HM Revenue and Customs

- The total value of food and drink exports rose slightly in 2013 to £18.9 billion, £6.0 billion more than in 2005 measured in 2013 prices although still lower than in 2011.
- Exports of most types of food and drink increased in 2013. Dairy products and eggs had the greatest value increase at £0.17 billion (14%). Exports of feedingstuff for animals increased £0.09 billion (11%) and exports of vegetables and fruit by £0.08 billion (9.3%).
- Oils had the greatest value reduction at £0.25 billion (27%), largely removing the increases seen in 2011 and 2012. Exports of cereals and of sugar/sugar preparations/honey also fell in 2013 by 6.8% and 4.5% respectively.
- The trade deficit in food, feed and drink widened slightly in 2013 to £21.3 billion. It is £3.7 billion higher than in 2005 measured in 2013 prices.

⁶ 2013 figures are provisional.

Global & UK Supply

3.6: World trends in population, energy requirement, energy supply and prevalence of under-nourishment⁷



Source: *Food Security Indicators*, (FAO).

- The average of individual dietary energy requirement (ADER), calculated as Kcal/capita/day, is a reference for adequate nutrition in the population. Its value can be used to calculate the depth of the food deficit (FD)⁸.
- The dietary energy supply, calculated as Kcal/capita/day, has increased 9.2% since 1990-92.
- World population is currently growing 1.2% per year and increased 29% between 1990-92 and 2010-12.
- Undernourishment reflects a shortage of food energy to sustain normal daily activities, affected by the amount of food available and by its distribution.
- The prevalence of under-nourishment in the world has fallen 33% since 1990-92. The rate of decrease has slowed since 2005, leaving 13% of the world's population (almost 900 million people) without adequate daily food intake⁹.

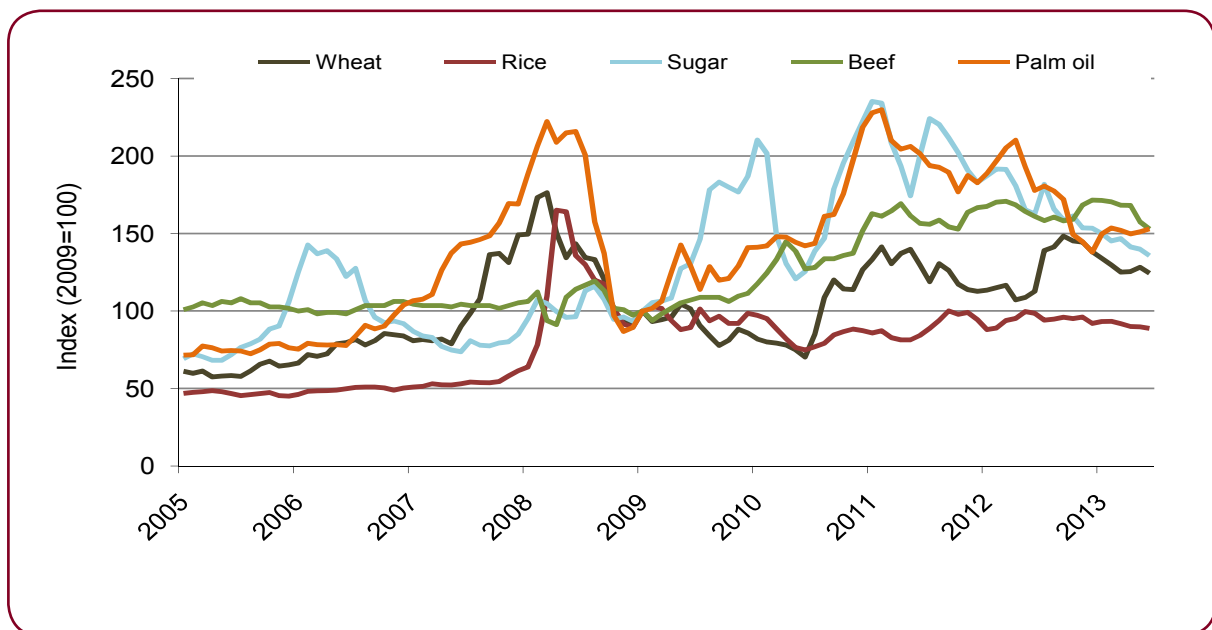
⁷Calculated on three-year averages to reduce the impact of errors in recording annual stock variations.

⁸The amount of dietary energy that would be needed to ensure that, if properly distributed, hunger would be eliminated.

⁹Global monitoring report 2013, World Bank.

Global & UK Supply

3.7: World agricultural commodity prices to June 2013

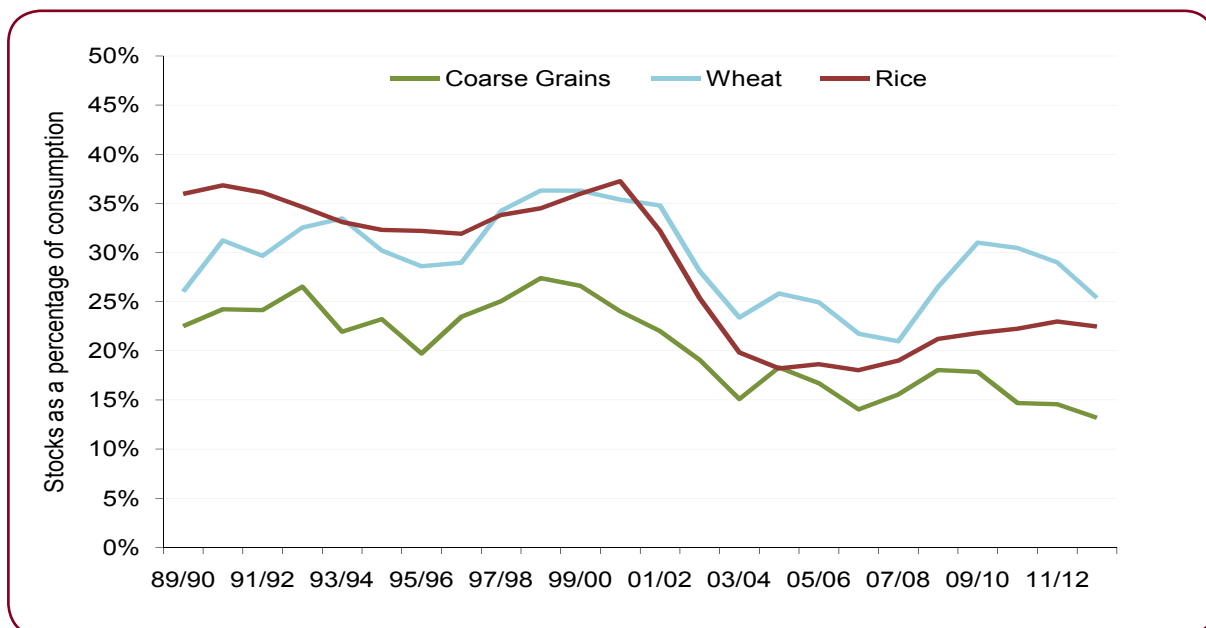


Source: United Nations Conference on Trade & Development (UNCTAD).

- Wheat prices rose 38% between April and September 2012, caused by a major drought in the US “corn belt” and poor wheat harvests elsewhere.
- Wheat prices peaked in March 2008, May 2011 and again in September 2012. The second and third spikes were not as high and reductions between September 2012 and June 2013 have brought prices down to 30% lower than in 2008.
- Sugar prices peaked in January 2011, 170% higher than in January 2007. A steady decline since then resulted in prices in June 2013 being 42% lower than the 2011 peak.
- Rice prices peaked in April 2008 having risen threefold over 8 months. A downward trend followed until June 2010 with prices falling 55%. Prices rose steadily between June 2010 and the first half of 2011 since when there has been relative stability.
- Palm oil prices peaked in early 2011, 3.4% higher than the previous peak in early 2008. Since then, prices have been on a downward trend despite some fluctuations in early 2012. Prices in June 2013 are 33% lower than in early 2011.

Global & UK Supply

3.8: World grains stocks to consumption ratio to 2012-13



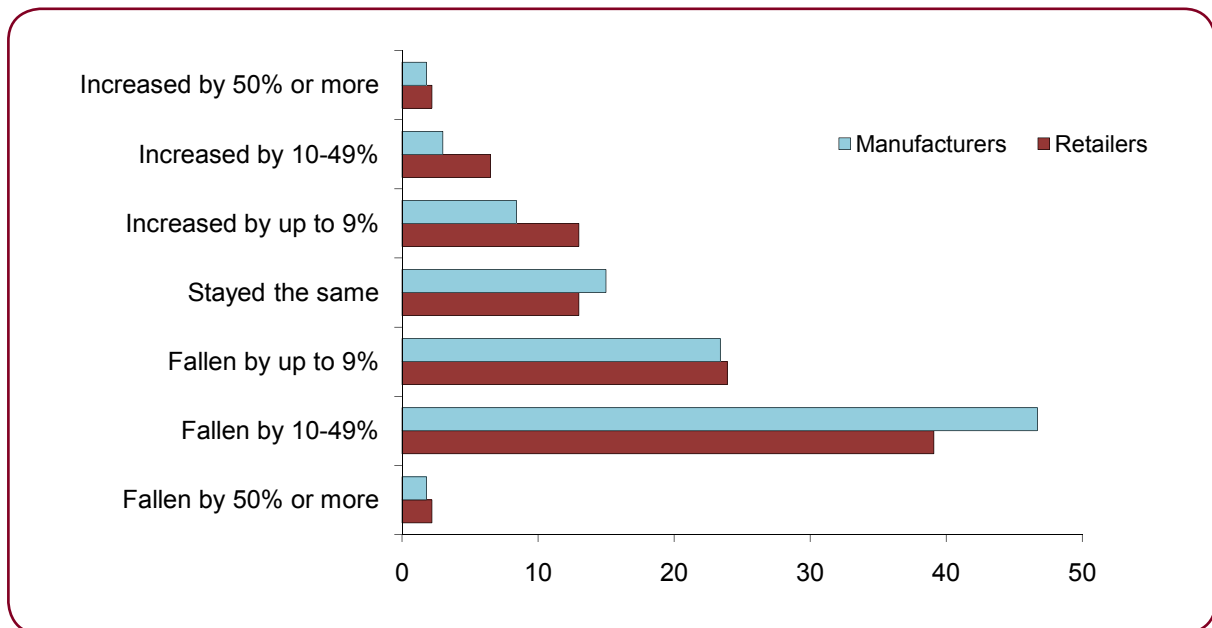
Source: International Grains Council (IGC), United States Department of Agriculture (USDA).

- Stocks to consumption ratios are an indicator of global resilience to food shortages and price stability. With low stocks, markets become sensitive to further supply shortfalls, which magnifies the price response.
- Wheat and rice stocks remain relatively high at the end of the 2012-13 crop year, although the downward trend in wheat stocks is projected to continue in 2013-14¹⁰. Rice stocks have been on an upward trend since 2004-05.
- Severe drought in the USA in 2012 significantly reduced global production of maize, so the coarse grain stocks-to-use ratio fell 2 percentage points to a new low of 13% in 2012-13. Stock levels are expected to be restored in 2013-14.
- Consumption (the denominator) is on a gradually rising trend, pushing the indicator onto a downward trend.

¹⁰ USDA projections.

Global & UK Supply

3.9: Retailer warehouse stock levels 5-year change



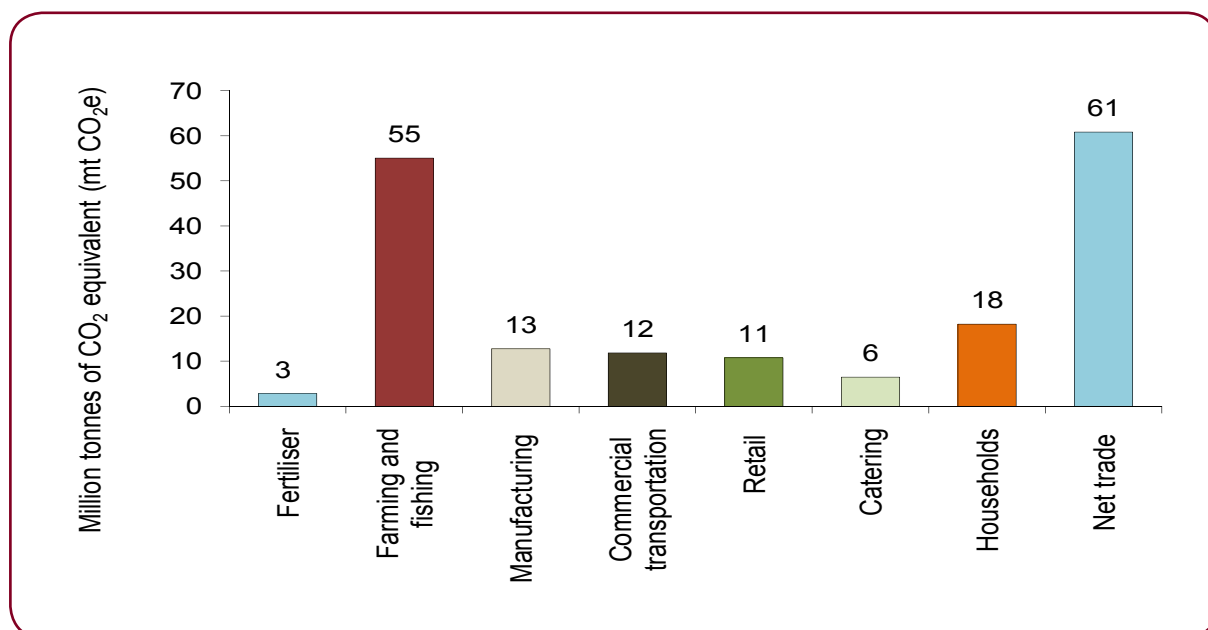
Source: IGD Research, 2012.

- In the last five years, the industry has largely reduced warehouse stock levels. 72% of manufacturers and 65% of retailers have made at least some reduction over this period.
- The majority of retail supply chains have between one and four weeks of stock, with suppliers tending to hold higher levels of stock than retailers. For fresh produce, stock levels can sometimes be only 24 hours or less.
- As retail supply chains become more responsive, lead times¹¹ are reducing and order frequencies are increasing.
- Retailers are increasingly moving products into their stockless networks, managing products from across their ranges in the same way as the fresh and produce categories.
- The impact of the current economic climate on consumer spending has helped drive this change as retailers look at ways of funding price cuts; supply chain operating costs and working capital tied up in inventory has provided such an opportunity.

¹¹ The time between an order being placed and delivery.

Chapter 4: Environment

4.1: Greenhouse gas (GHG) emissions from the UK agri-food sector, 2011¹



Source: Environmental accounts (ONS), Food Transport Indicators (Defra), Energy Consumption in the UK (DECC), British Survey of Fertiliser Practice (Defra), Consumption Emissions (Defra).

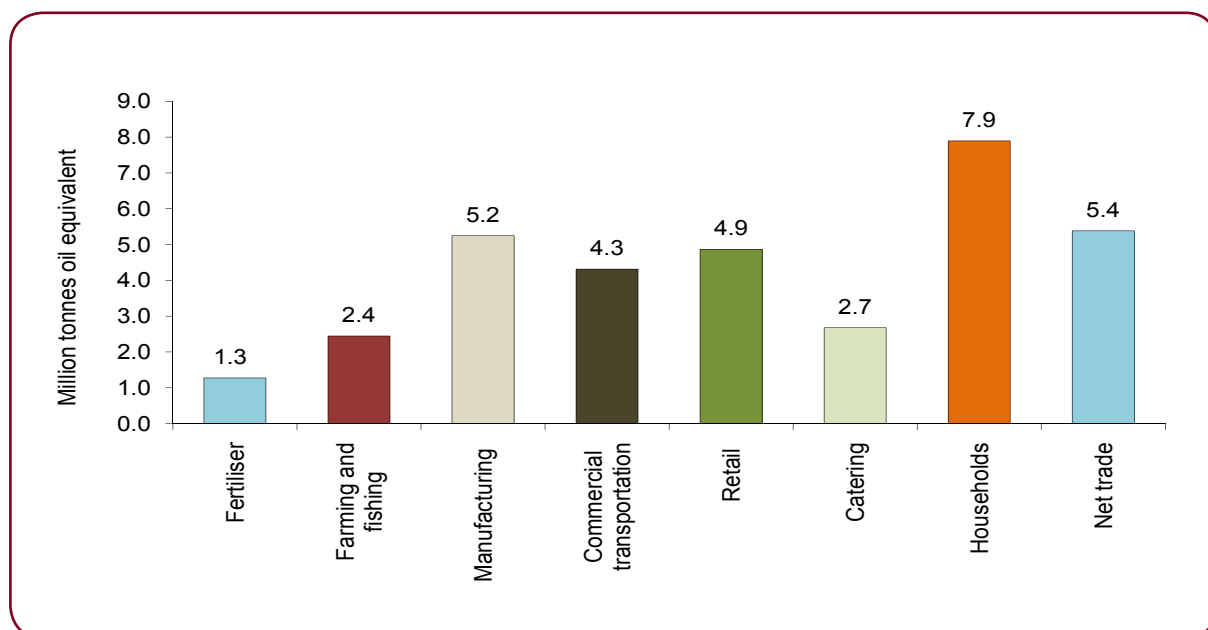
- Around 176 million tonnes of CO₂ equivalent GHGs (mt CO₂e) were emitted within the UK from domestic food sector activity in 2011, excluding emissions from non-fertiliser pre-farm production, food packaging, food waste and land use change; the largest contributor being net trade² in food and drink, estimated at 61 mt CO₂e.
- The UK farming and fishing sector was the second largest contributor, accounting for 55.1mt CO₂e. It was the only sector to increase emissions in the last year, rising by 0.9 mt CO₂e; a return to pre-recession levels. Enteric fermentation in ruminating animals and oxidisation of nitrogen in fertilisers is the source of most of these emissions.
- All other sectors had similar or decreased emissions, most noticeable being a 3% fall in household emissions.

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 Emissions from food imports less emissions from food exports.

Environment

4.2: Energy use in UK agri-food sector, 2011³



Source: Environmental Accounts (ONS), Food Transport Indicators (Defra), Energy Consumption in the UK (DECC), British Survey of Fertiliser Practice (Defra), Consumption Emissions (Defra).

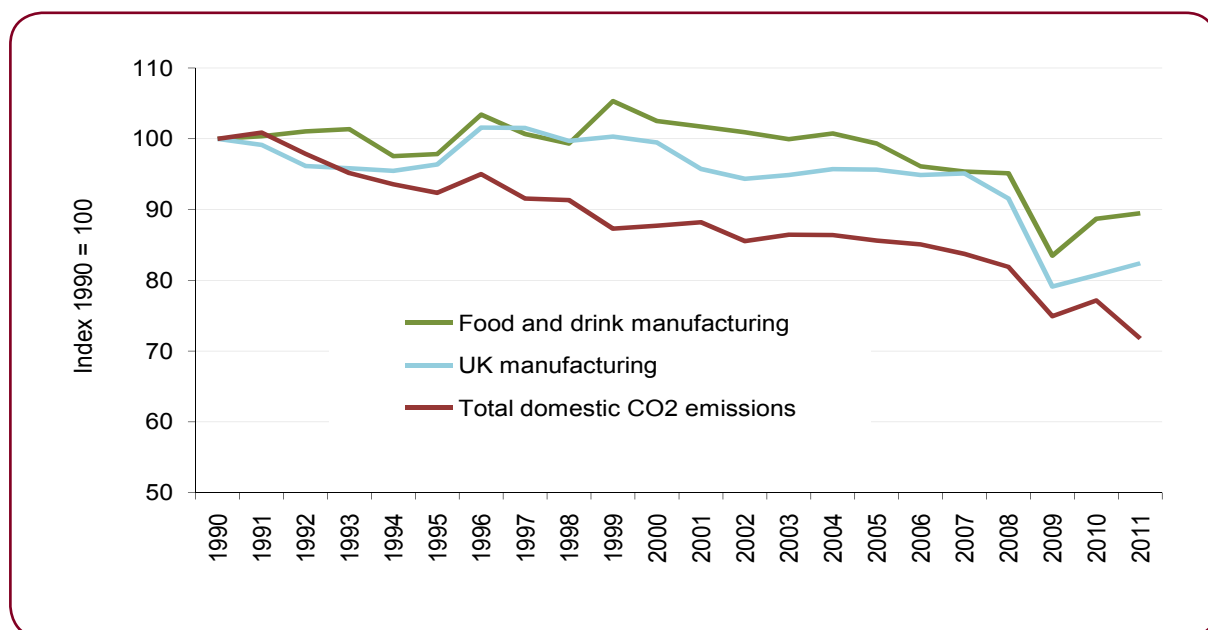
- Households are the largest contributor to energy use at 7.9 million tonnes of oil equivalent (Mtoe), or 23%⁴ of the total. Net trade is the second highest at 5.4 Mtoe. This is energy use in food imports less energy use in food exports.
- Energy consumption in the UK agri-food sector increased in 2011 by 2.2 Mtoe, attributable to food manufacturing which increased from 3.0 to 5.2 Mtoe. Food manufacturing accounted for 15% of total energy use across the agri-food sector in 2011.
- Energy consumption of households and catering both fell by 0.1 Mtoe in 2011, reversing an increase of the same amount seen in 2010.
- Natural gas accounted for 62% of total energy consumption in food and drink manufacturing in 2011⁴, followed by electricity at 30%. Petroleum, fuel oil and coal make up the remaining 8%.

³ 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.

⁴ Digest of United Kingdom Energy Statistics (DECC). Data excludes energy used to generate heat for all fuels except manufactured solid fuels and electricity.

Environment

4.3: Trend in CO₂ emissions from UK food and drink manufacturing, 1990-2011⁵

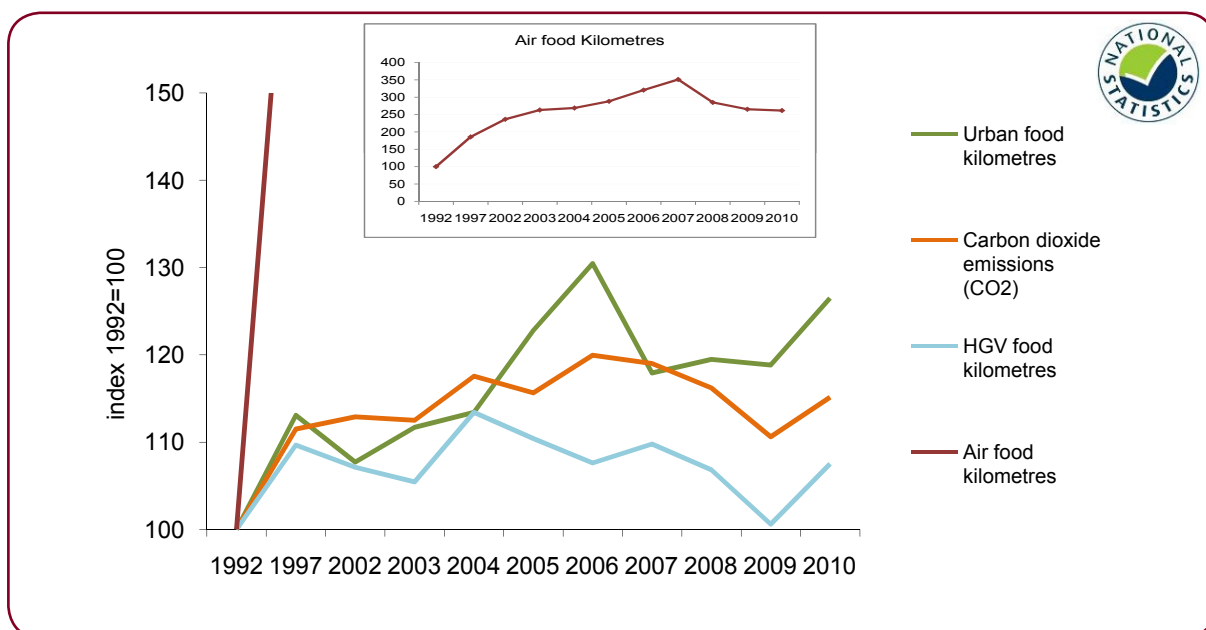


Source: *Environmental Accounts (ONS), Energy Consumption in the UK (DECC)*.

- CO₂ emissions from UK manufacturing, including food and drink manufacturing have been on a downward trend since 1999, despite increases in 2010 and 2011.
- Since 1990, the downward trend in CO₂ emissions from UK manufacturing sectors follows a similar pattern to the downward trend in total domestic emissions. In 2011, total domestic CO₂ emissions fell 7.0% on 2010, 28% below 1990 levels.
- The volume of output from food and drink manufacturing fell between 2007 and 2009 during the economic downturn, leading to a reduction in the level of CO₂ emissions.
- An increase in the volume of outputs along with a prolonged period of exceptionally cold weather produced an increase in emissions during 2010 and into 2011. 2011 saw a reduction in GHG emissions from combustion; in particular, from natural gas combustion.

⁵ Manufacturing figures include the share of CO₂ emissions relating to electricity production using a constant emission factor. Total domestic CO₂ emissions include net emissions/removals from land use and land use change but with no allowance for EU Emission Trading Scheme purchases.

4.4: Indicators of the external impact of food transport⁶



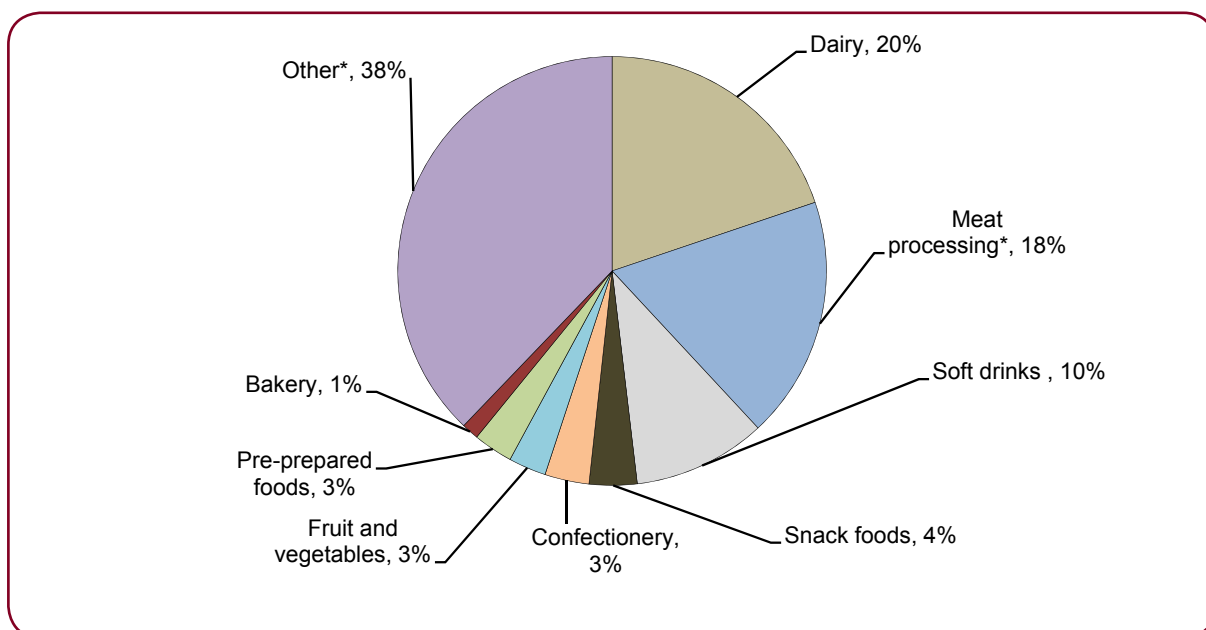
Source : Food Transport Indicators (Defra).

- The external impacts of food transport peaked in 2006-2007. Although 3 out of the 4 indicators showed an increase in 2010, the underlying trends may not have changed.
- UK urban food kilometres increased by 6.4% from 2009 to 2010 but there is little evidence of a clear trend in the data:
 - CO₂ emissions from food transport increased 4.1% in 2010 but remain 4.0% lower than in 2006, suggesting an underlying downward trend remains.
 - HGV food kilometres increased by 6.9% in 2010, broadly in line with other national economic outputs measures. A downward trend in HGV food kilometres since 2004 is apparent despite the increase in 2010.
- Urban food kilometres is a proxy for urban road congestion; HGV food kilometres is a proxy for infrastructure costs.
- Air food kilometres have fallen after a period of rapid growth up to 2007, with some evidence that this is stabilising at around 2003 levels. Although air freight of food accounts for only 1% of food tonne kilometres, it produces 12% of the food transport CO₂ emissions.

⁶ Air, urban and HGV are measured in vehicle kilometres, CO₂ emissions are measured in tonnes.

Environment

4.5: Food and drink sub-sectors represented within the Federation House Commitment (FHC)



Source : Federation House Commitment (FHC)⁷, Progress report 2012 (WRAP).

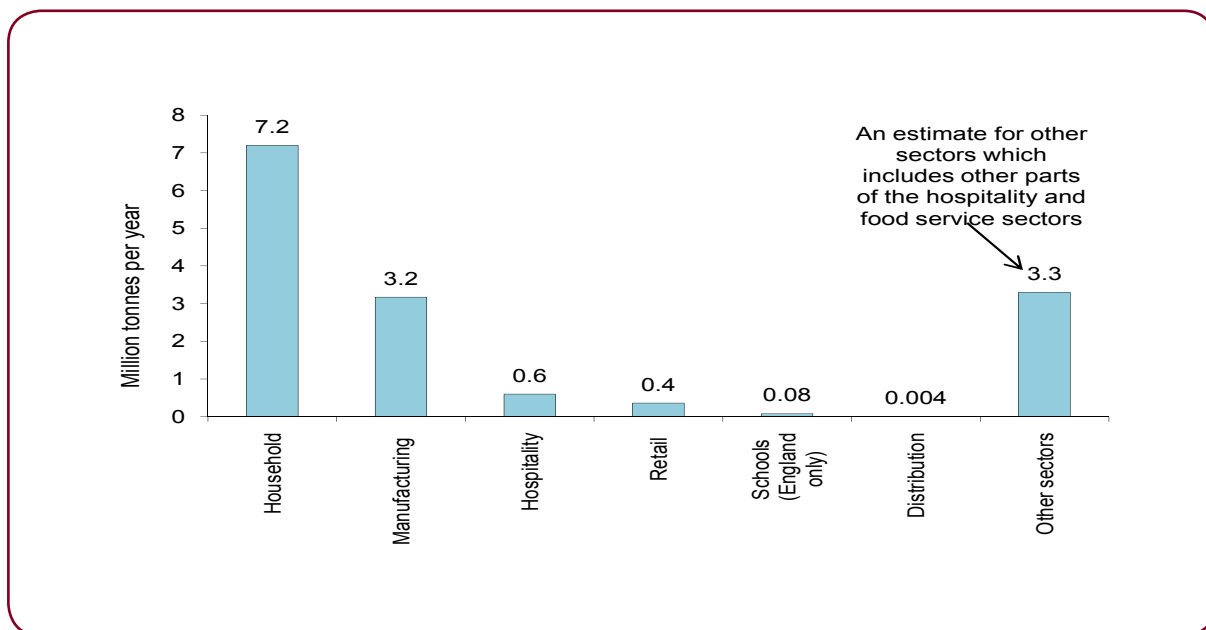
- Federation House Commitment is a voluntary agreement for the food and drink manufacturing sector. Its aim is to help reduce the stress on the nation's water supplies and contribute to an industry-wide target to reduce water use by 20% by 2020 against a 2007 baseline.
- As of June 2013, the FHC has 71 signatories across 294 sites. Together, these signatories represent an estimated 23-25% of UK food and drink manufacturing.
- Between 2007 and 2012 signatories collectively made a 16% reduction in their water use (excluding that in the product). This reduction is equivalent to 7.4 million m³ or around 2,965 Olympic-size swimming pools.
- Between 2011 and 2012 signatories reported a 1.5 million m³ reduction in water use. This represents a saving of around £2.2 million in the purchase of water alone.

* Meat processing includes red meat and poultry. 'Other' includes fish processing, alcoholic beverages, pet food and animal feed, milling, desserts, sauces and condiments.

⁷The FHC is managed by WRAP in partnership with the Food and Drink Federation and Dairy UK and supported by the Environment Agency: More information at www.fhc2020.co.uk

Chapter 5: Waste

5.1: UK food and drink waste through the food chain^{1,2}



Source: New estimates for household food and drink waste in the UK; The composition of waste disposed of by the UK Hospitality³ Industry; Food waste in schools, WRAP 2011.

- Estimated total UK food and drink waste is around 15 million tonnes (mt) per year, with households generating 7.2mt/year of which 4.4mt is avoidable (i.e. food fit to eat).
- WRAP estimate a 1.1mt reduction between 2006 and 2010, although more work is needed to reconcile estimates of purchases, consumption and waste.
- The hospitality³ sector disposed of around 600 thousand tonnes (kt) of food waste to landfill in 2009, of which almost 400kt was avoidable.
- Total food waste generated by schools in England is estimated at 80kt (67kt classed as avoidable or potentially avoidable). Of this, 55kt is generated by primary schools⁴.
- Estimates are based on peer-reviewed studies. Accuracy will vary with some being indicative only. See individual studies for further information.

¹ Excluding agriculture apart from the 'other sectors' data which includes an estimate for agriculture.

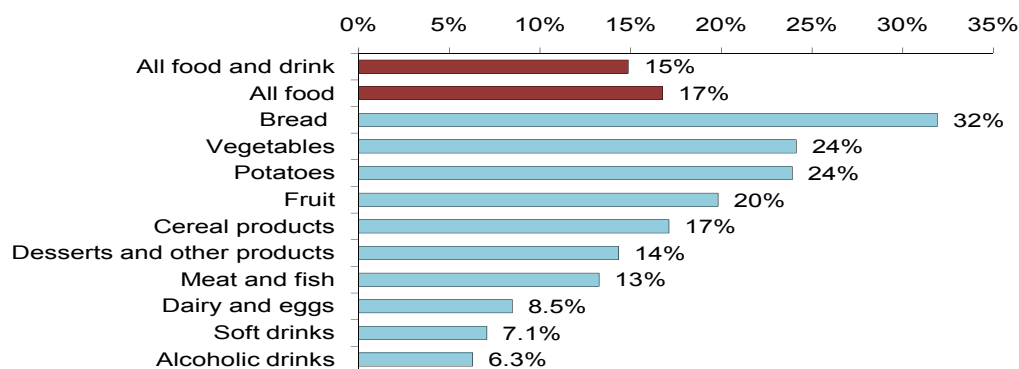
² For the latest available data please go to: [Handy facts and figures on waste in the UK](#).

³ This data covers landfill waste from hotels, pubs, restaurants and quick service restaurants.

⁴ See: Food waste in schools, WRAP 2011.

Waste

5.2: UK percentage of edible household food purchases that are wasted⁵



Source: Household food and drink purchases linked to waste, Defra 2010⁶.

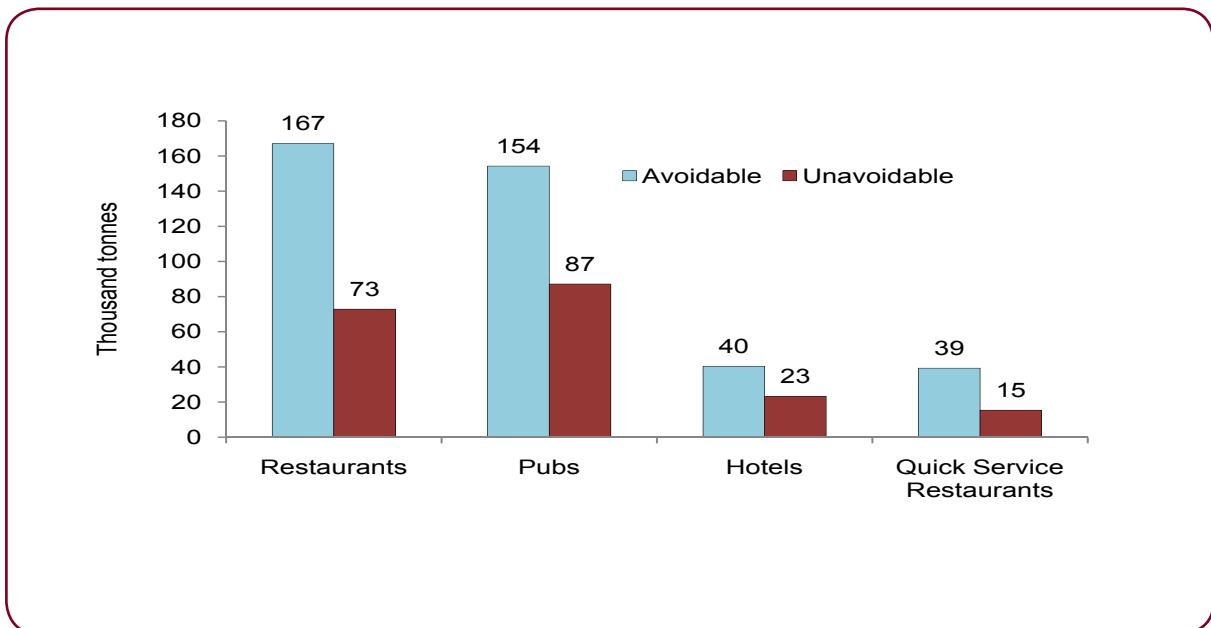
- Overall 15% of edible food and drink purchases are wasted each year. Different foods are wasted at different rates; 17% of overall food purchases, 7.1% of soft drinks and 6.3% of alcoholic drinks are wasted.
- Avoidable food and drink waste in the home is estimated by WRAP at £12 billion per year or £480 per household.
- ‘Not used in time’ is often cited as the reason for throwing away food. Bread is the most wasted food with 32% of edible purchases⁷ being wasted. Bread crusts are not classed as edible in this analysis.
- Vegetables and potatoes are wasted at a similar rate (24%), equivalent to 730 thousand tonnes of edible vegetables and 400 thousand tonnes of edible potatoes wasted per year.
- On a calorie basis, 16% of food and drink is wasted. 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%.

⁵ For the latest available data please go to: [Handy facts and figures on waste in the UK](#).

⁶ Data was collected between 2006 and 2008.

⁷ Calculated as total purchases minus the difference between total waste and avoidable waste.

5.3: UK hospitality sector food waste going to landfill⁸



Source: *The composition of waste disposed of by the UK Hospitality Industry, WRAP 2011.*

- Waste going to landfill from the UK hospitality sector⁹ in 2009 is estimated at 1.5 million tonnes, which includes 600 thousand tonnes¹⁰ of food waste (41%). The majority of this, 400 thousand tonnes, is avoidable.
- Pubs and restaurants generate more food waste than hotels and quick service restaurants combined.
- WRAP estimates that UK Hospitality businesses pay around £1.02 billion a year buying food that is subsequently wasted. Most food waste from this sector heads to landfill but WRAP estimates that £6.6 million a year could be saved if this waste went for anaerobic digestion.

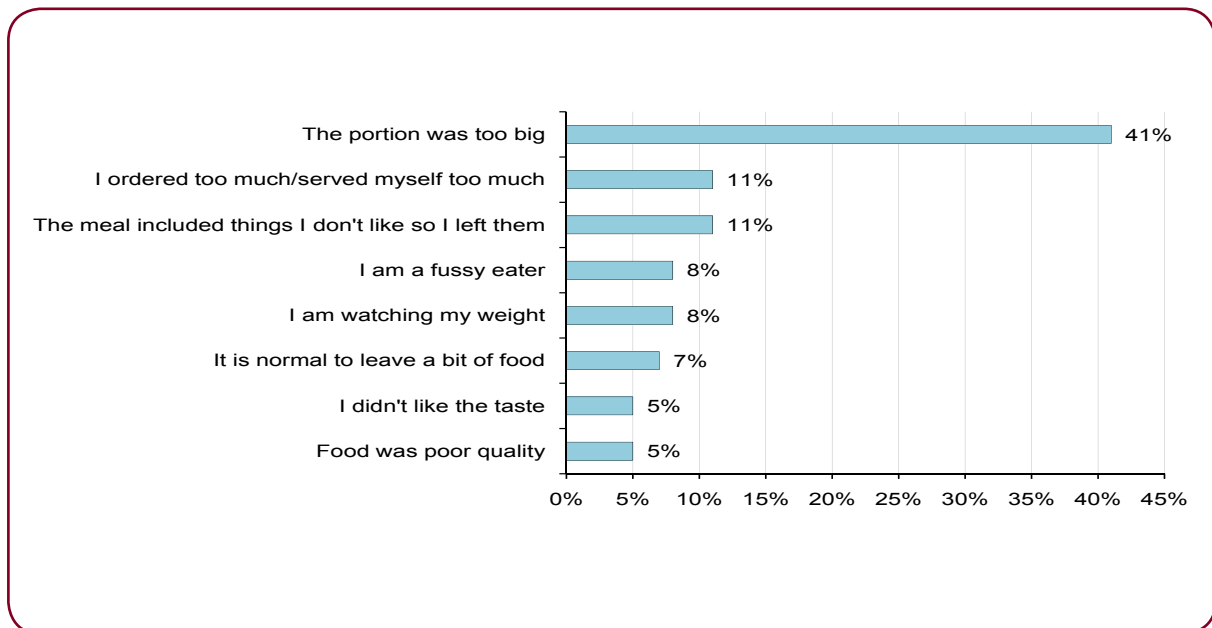
⁸ For the latest available data please go to: [Handy facts and figures on waste in the UK.](#)

⁹ This data covers 4 areas of the hospitality sector: UK hotels, pubs, restaurants and quick service restaurants. It only covers waste disposed to landfill.

¹⁰ See: *The composition of waste disposed of by the UK Hospitality Industry, WRAP 2011* for definitions.

Waste

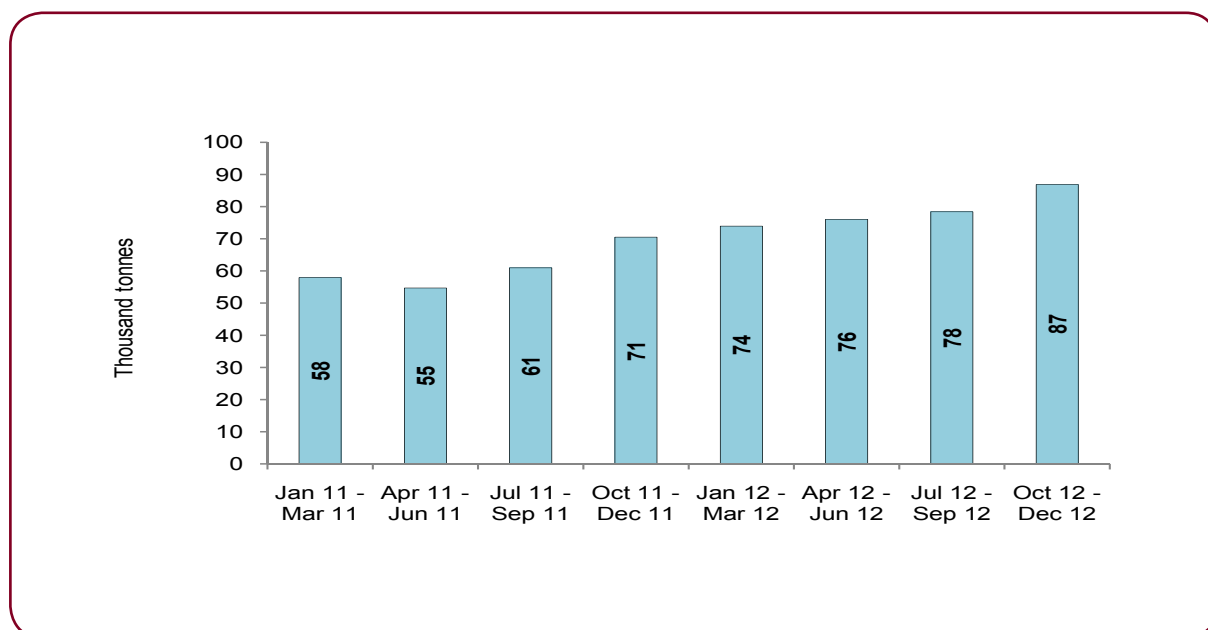
5.4: Understanding out of home consumer food waste (reasons why food was left)



Source: *Understanding out of home consumer food waste, WRAP 2013.*

- Over half of meal leavers eating out linked leaving food to various aspects of portion sizes. Two fifths (41%) of meal leavers stated that one of the reasons why they had left food was because the portion size was too big and 11% stated that they ordered/served themselves too much.
- Those that left food at the end of their meal mainly stated leaving chips (32%) and vegetables (18%). This is true across all types of venue though chips are even more likely to be left in quick service restaurants (45%) and pubs (38%).
- A bigger proportion of meal leavers tend to leave food when eating out in either pubs, hotels or restaurants than other venues. The tendency to leave food at these venues could be that these diners attach more value to enjoying a meal out in a social setting than diners who are simply out to 're-fuel'.
- The research showed that customers take into account the cost and value of what they have actually ordered to decide whether to leave food and what part of the meal to leave. Parts of the meal which tend to be left are the main dish and the accompanying sides; while appetisers, starters and desserts were less likely to be left.

5.5: UK recycling of separately collected food waste



Source: WasteDataFlow, Defra questions 10 and 12, 2012¹¹.

- Local authorities in the UK collected 315,218 tonnes of separately collected food waste for recycling from households in 2012, a 29% increase on 2011.
- In 2012, over 5 million UK households received a food waste collection service, up by around 1 million, or 26%, on 2011. This is a nearly a fifth of all UK households.
- Separately collected food waste in England accounted for around 2.3% of the total England household waste collected for recycling in 2012, compared to 1.9% in 2011.
- In 2010, 3.8 million tonnes of food waste in England was part of total local authority collected waste¹², a reduction of around 840 thousand tonnes from 4.7 million tonnes in 2006-07.
- Disposal of UK household food waste¹³ in 2010:
 - Local authority collected waste¹⁴ - 64% (70% in 2007),
 - The sewer - 26% (22% in 2007) and
 - Home composted or fed to pets - 10% (8% in 2007).

¹¹ For the latest available data please go to: [Handy facts and figures on waste in the UK](#).

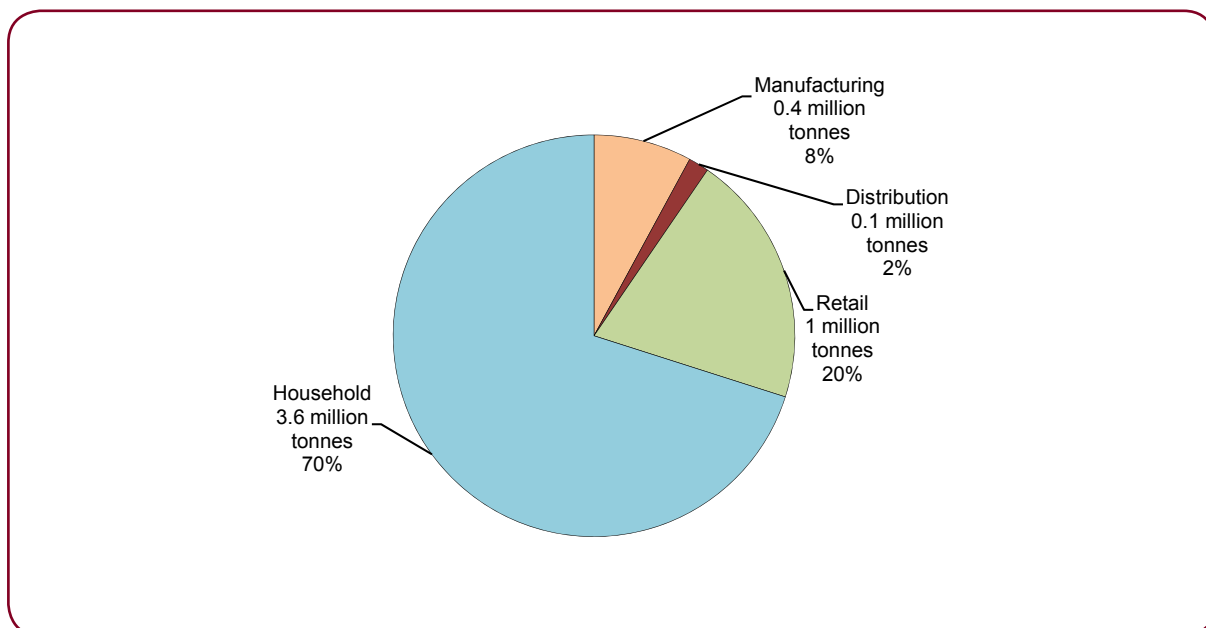
¹² Synthesis of Food Waste Compositional Data 2010, WRAP November 2011.

¹³ New estimates for household food and drink waste in the UK, WRAP November 2011.

¹⁴ Separate kerbside food waste collections form part of this 64%.

Waste

5.6: UK food and drink packaging waste in the supply to households

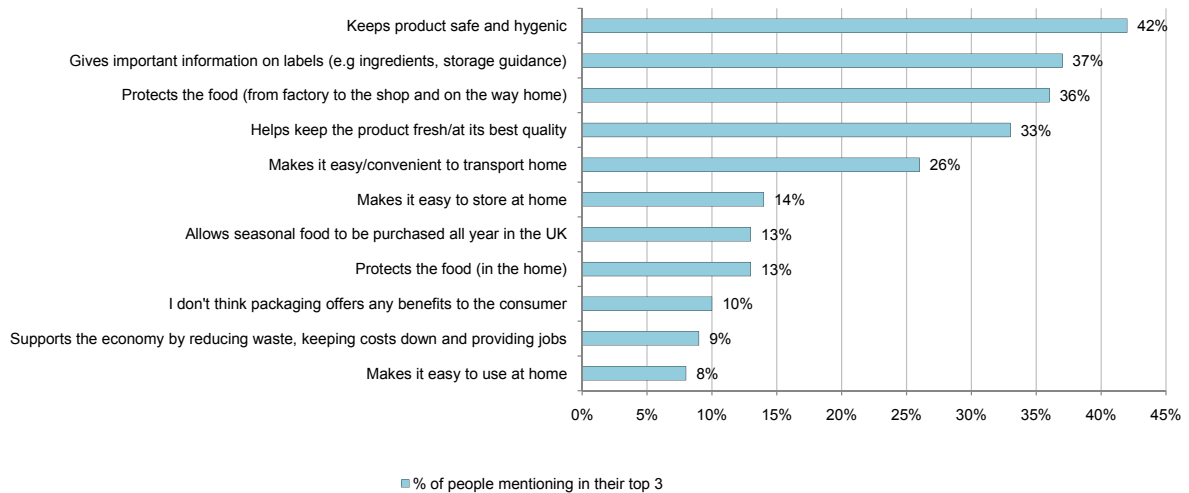


Source: Waste arisings in the supply of food and drink to households in the UK, WRAP 2010.

- Packaging protects products in transit and helps maintain shelf life for perishable foods.
- An estimated 3.6 million tonnes of grocery¹⁵ packaging enters households which is over two thirds of the total grocery packaging waste.
- Food and drink packaging emissions amount to 8.7 million tonnes of CO₂ equivalent (mtCO₂e), 6.1 mtCO₂e for household purchases.
- The Courtauld Commitment is a responsibility deal between the UK grocery sector and WRAP, delivered in partnership with local authorities. Between 2006 and 2009, phase 1 led to savings of around 670 thousand tonnes of food waste and 520 thousand tonnes of packaging waste. Phase 2 was launched in 2010 and aims to reduce food waste in the home by 4%, reduce food and packaging waste in the supply chain by 5% and the carbon impact for packaging by 10%. The full results will be reported in the autumn of 2013.

¹⁵ Including packaging from non-food and drink products sold in grocery shops.

5.7: Consumer attitudes to food waste and food packaging

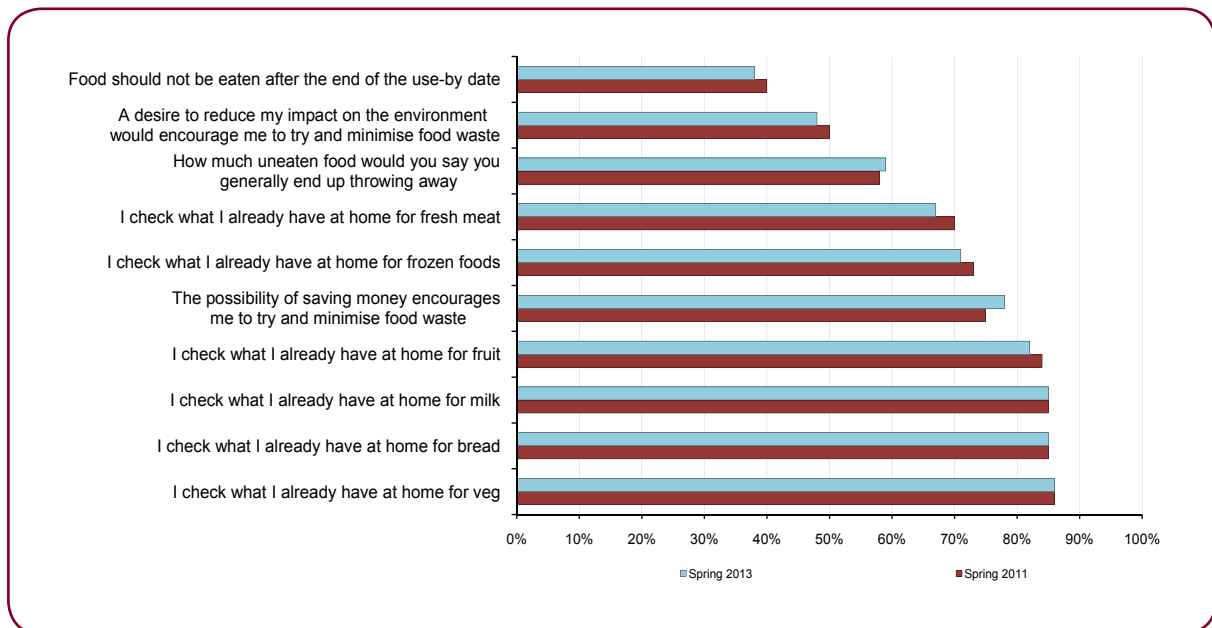


Source: *Consumer attitudes to food waste and food packaging*, WRAP 2013.

- Research in 2012 showed consumers are not recognising the potential from packaging of food in the home. Where 36% realised packaging played a role in transit from shop to home, only 13% believed it played a role in the storage of food in the home.
- Previous research has shown that fruit and vegetables are among the high wasting food items (see chart 5.2). 62% of respondents agreed with the statement: 'keeping fresh fruit and vegetables in their packaging makes them sweat and go off quicker', but in fact the opposite is true.
- 33% of consumers cite 'food waste' as a bigger concern than 16% who were concerned with 'the way foods are packaged'.
- WRAP¹⁶ conducted research looking at the storage lives of chilled foods in the household. The research found that the storage lives of the majority of chilled foods could be increased by an additional 3 days if fridge temperatures could be lowered from the current average of 7°C to 4°C.

¹⁶ Impact of more effective use of the fridge and freezer, WRAP, 2013.

5.8: Public attitudes and behaviours



Source: Household Food Waste Tracker Spring 2013, WRAP (unpublished).

- These statistics provide response levels on awareness of issues because people, on average, give responses that indicate the behaviour they aspire to rather than actual behaviour. This survey was conducted online across GB.
- The Spring 2013 Tracker Survey conducted by WRAP shows that consumers are still misinterpreting food date labelling, with 38% understanding the ‘use-by date’ message.
- Most response levels have not changed between the tracker survey conducted in Spring 2011 and the more recent Spring 2013 survey. However when consumers were asked ‘the possibility of saving money encourages me to try and minimise food waste’; this response level increased significantly from 75% in Spring 2011 to 78% in Spring 2013.

Chapter 6: Dietary Health

6.1: The eatwell plate

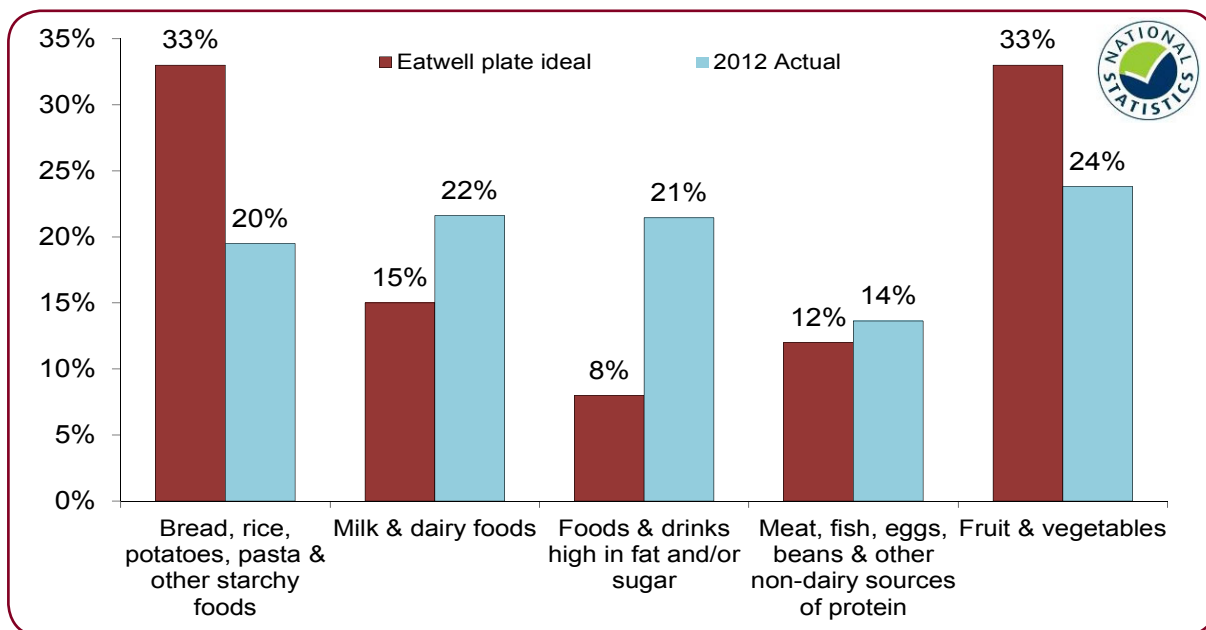


Source: Department of Health.

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

Dietary Health

6.2: Household purchases compared to the eatwell ideal



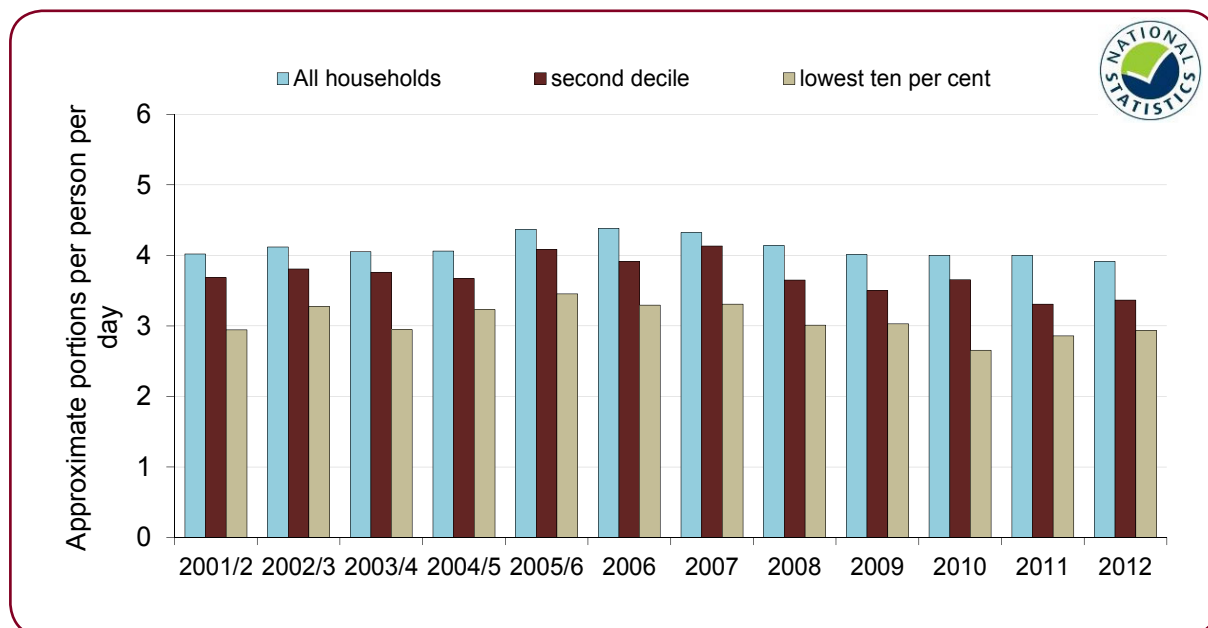
Source: *Family Food in 2012*, Defra, December 2013.

- Food and drink purchases for household supplies were allocated into the five eatwell plate groups¹. This shows that in 2012 household purchases included:
 - too much 'food and drink high in fat and/or sugar'; nearly three times the eatwell percentage,
 - more than the suggested proportion of 'milk and dairy foods'; 7 percentage points higher than the eatwell percentage,
 - a little too much 'meat, fish, eggs, beans and other non-dairy sources of protein',
 - too little 'bread, rice, potatoes, pasta and other starchy foods'; less than 60% of the eatwell percentage,
 - too little 'fruit and vegetables'; around 28% less than the eatwell percentage.

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: UK trend in purchases of fruit and vegetables (excluding potatoes) to 2012



Source: *Family Food in 2012*, Defra, December 2013.

- UK household purchases of fruit and vegetables were 2.1% lower in 2012 than in 2011, a reduction of 11% since their peak in 2006.
- Purchases of 5 A DAY² across all households remained unchanged between 2009 and 2011 at 4.0 portions; the reduction in 2012 to an average of 3.9 portions takes the level back to that of the early 1990s.
- The lowest income households³ purchase the least fruit and vegetables at an average of 2.9 portions per person of 5 A DAY in 2012, unchanged on 2011.
- Households in the second decile have seen the greatest reduction in purchases of fruit and vegetables since 2007 at 19%, but showed a small increase (1.7%) in 2012.
- Defra estimates that 22% of edible fruit and vegetables are wasted⁴.

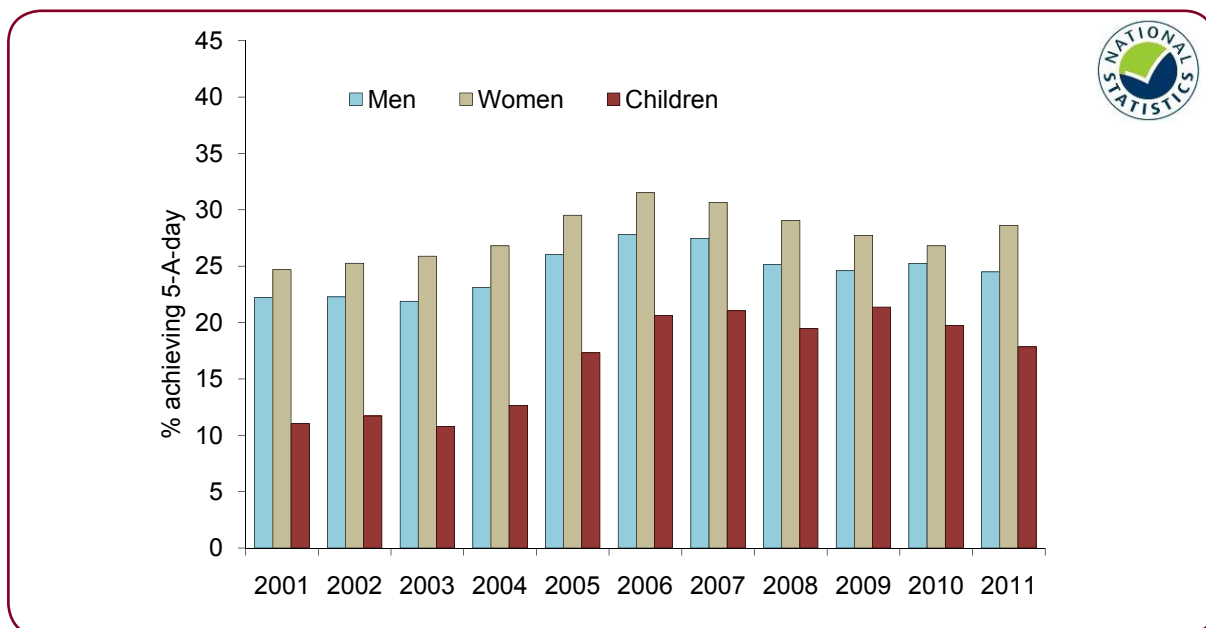
² 5 A DAY calculated as all purchases of fresh and processed fruit and vegetables including fruit juice divided by the adult portion size of 80 grams.

³ Lowest income households are those with incomes in the lowest ten percent of all households. Data on low income households is available from 2001.

⁴ Household Food and Drink Waste linked to Food and Drink Purchases, Defra July 2010.

Dietary Health

6.4: Trend in the consumption of fruit and vegetables in men, women and children in England to 2011



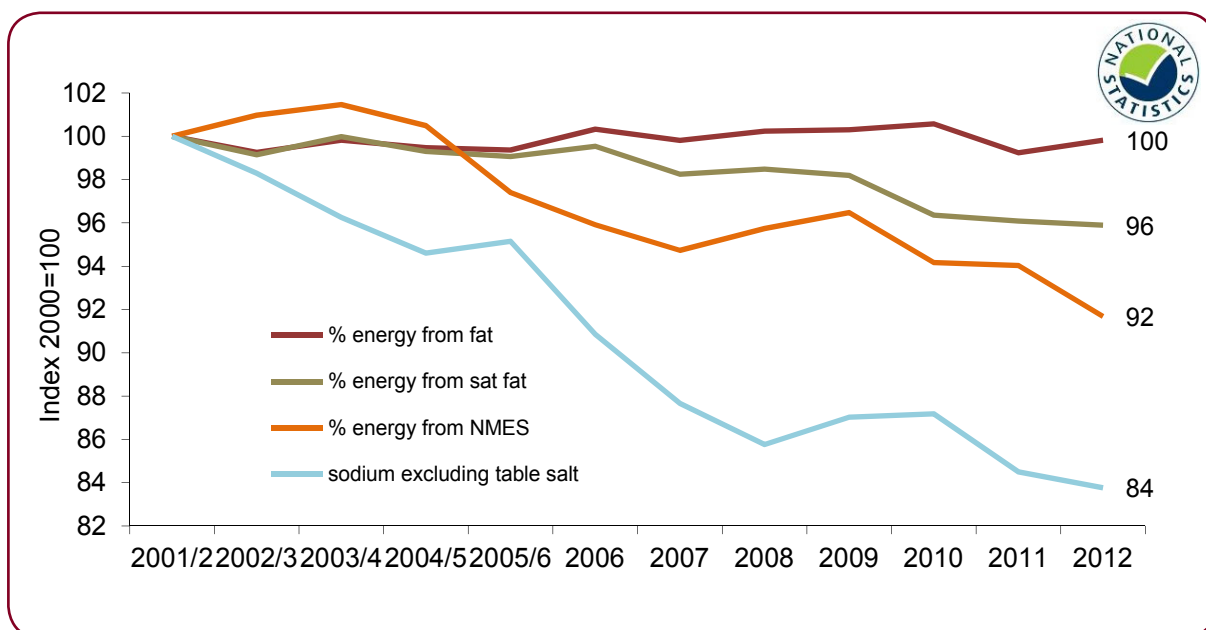
Source: Health Survey for England 2011, December 2012 (NHS Information Centre)⁵.

- In 2011 24% of men, 29% of women and 18% of children (aged 5 to 15 years) consumed the recommended 5 A DAY.
- In 2011 18% of children achieved 5 A DAY, having been over 20% in 2007 and only 11% in 2003.
- Achieving 5 A DAY peaked in 2006 with 32% of women and 28% of men achieving 5 A DAY.
- In 2011 6.6% of adults and 4.7% of children included no fruit or vegetables in their diet.
- Those aged 55 to 75 eat the most fruit and vegetables.
- In 2011 fruit and vegetable consumption by those aged 55 to 65 increased to an average of 3.9 portions per day for men and 4.3 portions per day for women.

⁵ 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: UK trends in intakes of fat, saturated fatty acids, non-milk extrinsic sugars⁶ and sodium to 2012



Source: *Family Food in 2012*, Defra, December 2013.

- Sodium intake continued on a downward trend to 2.72 g/ person/day in 2012. This is 16% lower than in 2001-02, but above the SACN recommendation of 2.40g of sodium including table salt.
- The percentage of food energy from NMES at 13.5% and from saturated fatty acids at 14.2% are both on a downwards trend since 2009, although the reductions are small. Neither should exceed 11% of total energy intake.
- Total fat should contribute no more than 35% of food energy intake (excluding alcohol). Estimates based on food purchases in 2012 from the Family Food survey exceed this at 38.3%, virtually unchanged since 2001-02.

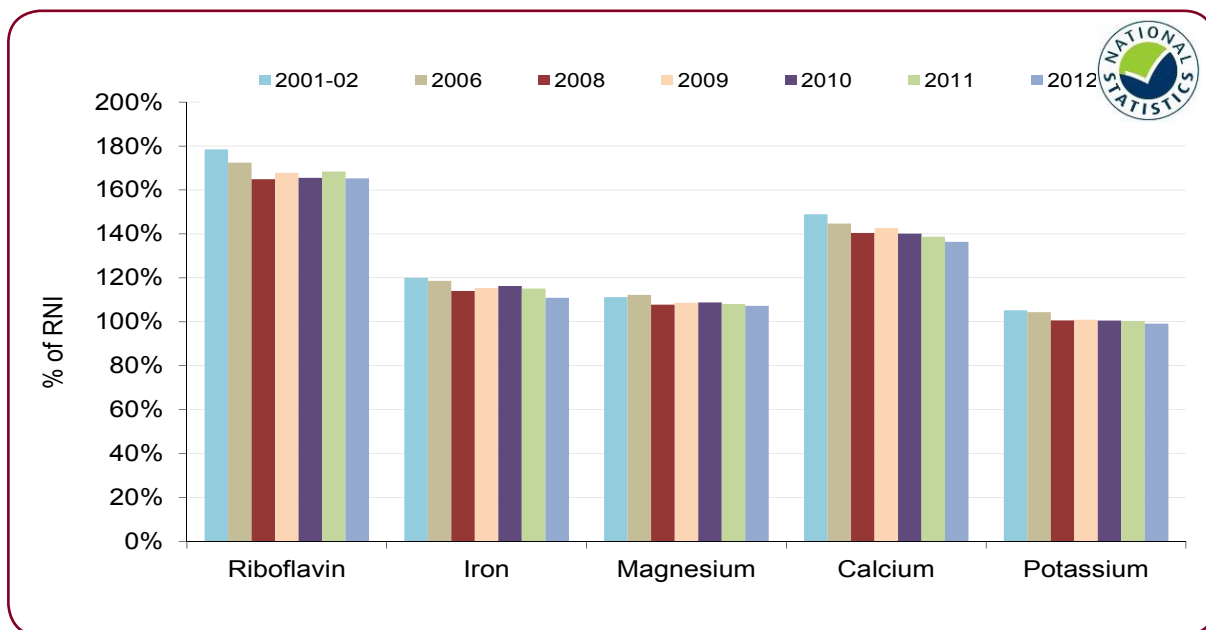
⁶ NMES – free sugar not bound in foods e.g. table sugar, honey and sugars in fruit juices, but excluding milk sugar.

⁷ For recommended intakes see Dietary Reference Values for Food Energy and Nutrients in the United Kingdom, 1991 (Department of Health).

⁸ Scientific Advisory Committee for Nutrition.

Dietary Health

6.6: UK average micronutrient intakes, 2001-02 to 2012⁹



Source: *Family Food in 2012*, Defra, December 2012.

- Based on food and drink purchases average micronutrient intakes except sodium¹⁰ and potassium reached at least 100% of their reference nutrient intake value, where one is set, in 2012.
- Intake of vitamin B₁₂ has been consistently high since 2001-02 and remains at around four times the recommended level.
- Over the four years 2009 to 2012, intakes of most vitamins and minerals showed downward trends, notably Vitamin B₆ and folate, with decreases of 13% and 5.7% respectively. Over the same period, thiamin and vitamin C showed upward trends¹¹.

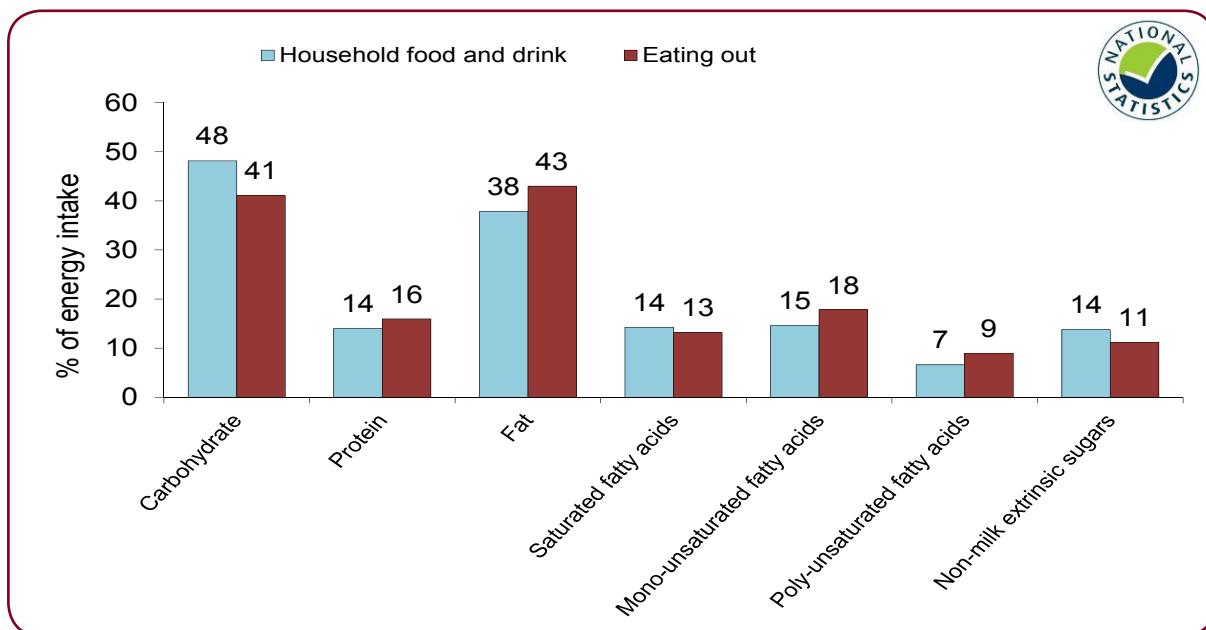
⁹ Reference Nutrient Intake: the intake which is considered sufficient to meet the requirements of 97.5% of the population.

¹⁰ Guidance levels for sodium are a maximum daily amount. See Chart 6.5 for the trend in intakes of Sodium.

¹¹ These trends are partly explained by changes in food composition data over time, due to new analytical data becoming available or changes in the formulation of food products.

Dietary Health

6.7: The UK household diet compared with the eating out diet in 2012¹¹



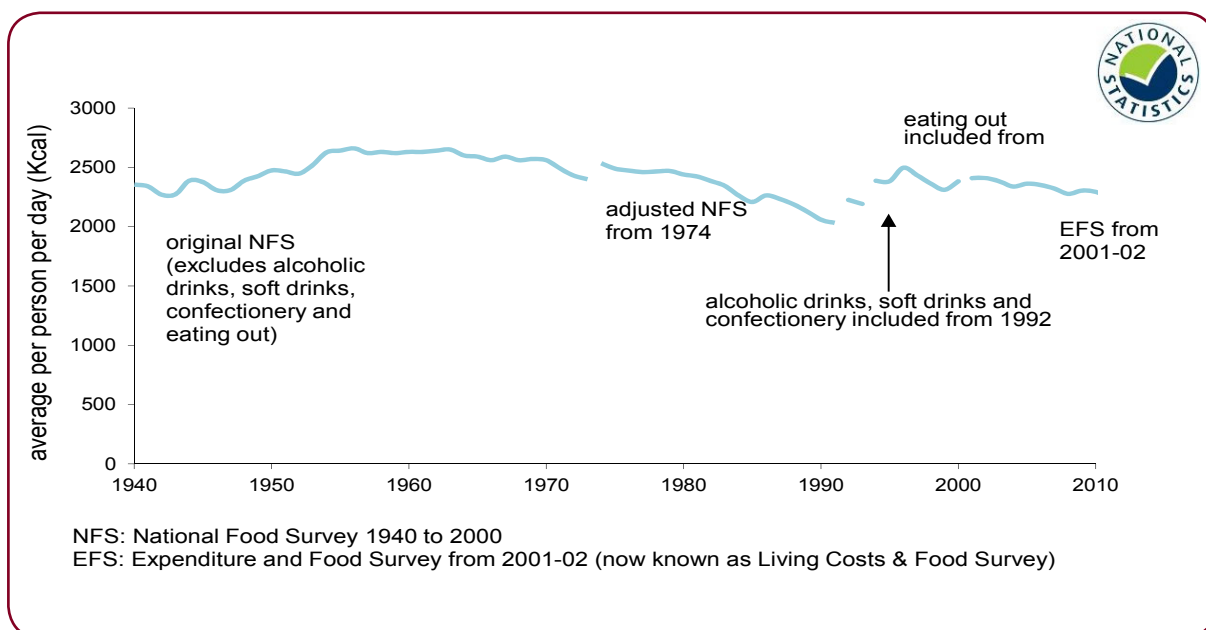
Source: *Family Food in 2012*, Defra, December 2013.

- Eating out food and drink are products that are consumed before entering the household.
- In 2012 eating out contributed 9.5% of energy intake excluding energy from alcohol.
- The percentage of energy intake from eating out has fallen steadily from 12% to 9.5% since 2002-03.
- The eating out diet is higher in fat and protein but lower in carbohydrate and non-milk extrinsic sugars.
- Mono-unsaturated and poly-unsaturated fatty acids are higher in the eating out diet. They are found in olive oils, rapeseed oil, vegetable oils, fish oils, nuts, milk and some meat and meat products.
- Saturated fatty acids are slightly 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 2012

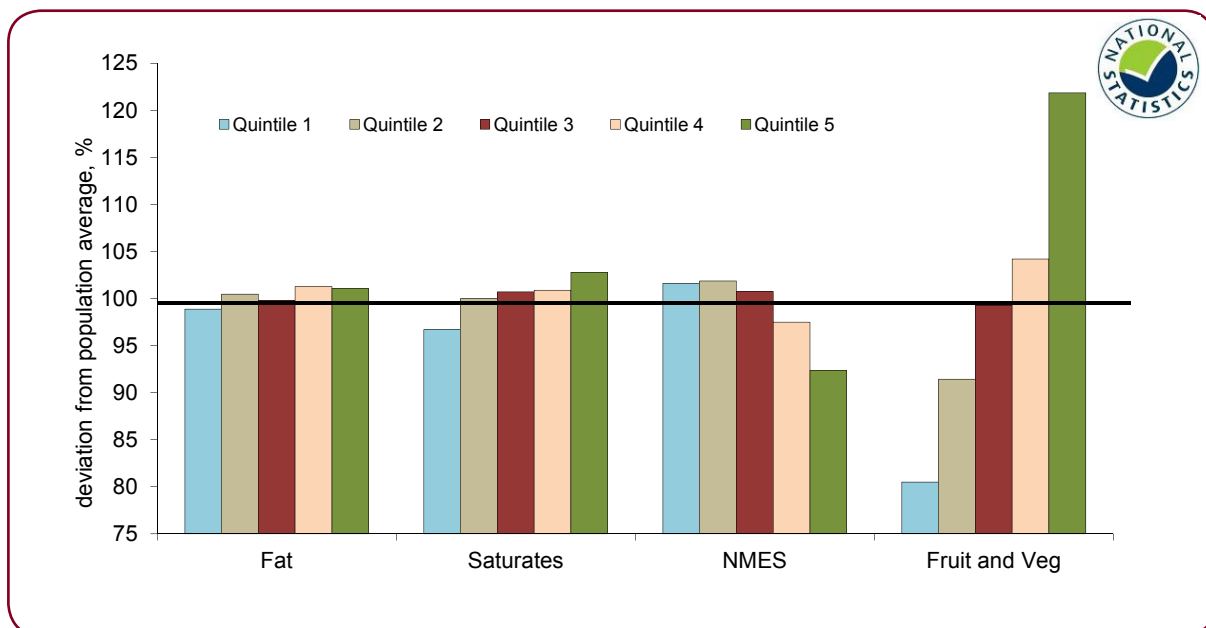


Source: *Family Food in 2012*, Defra, December 2013.

- Average energy intake based on all food and drink purchases fell 1.6% to 2,209 kcal per day in 2012.
- Average energy intake based on all food and drink purchases has fallen 8.3% between 2001-02 and 2012.
- Energy intake from food and drink recorded as eating out fell 7.3% in 2012 and has fallen by 29% since 2001-02.
- There is a long term downward trend in energy intake since the early sixties (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 31% lower in 2012 than in 1974.
- Despite decreasing energy intake, over-consumption of energy relative to our needs is a major factor in increasing levels of obesity, see Chart 6.10.
- Lowest income decile households purchased 6.4% less food for the household than the UK average in 2012, when measured by energy content.

Dietary Health

6.9: UK dietary indicators by equivalised income¹³



Source: Family Food in 2012, Defra, December 2013.

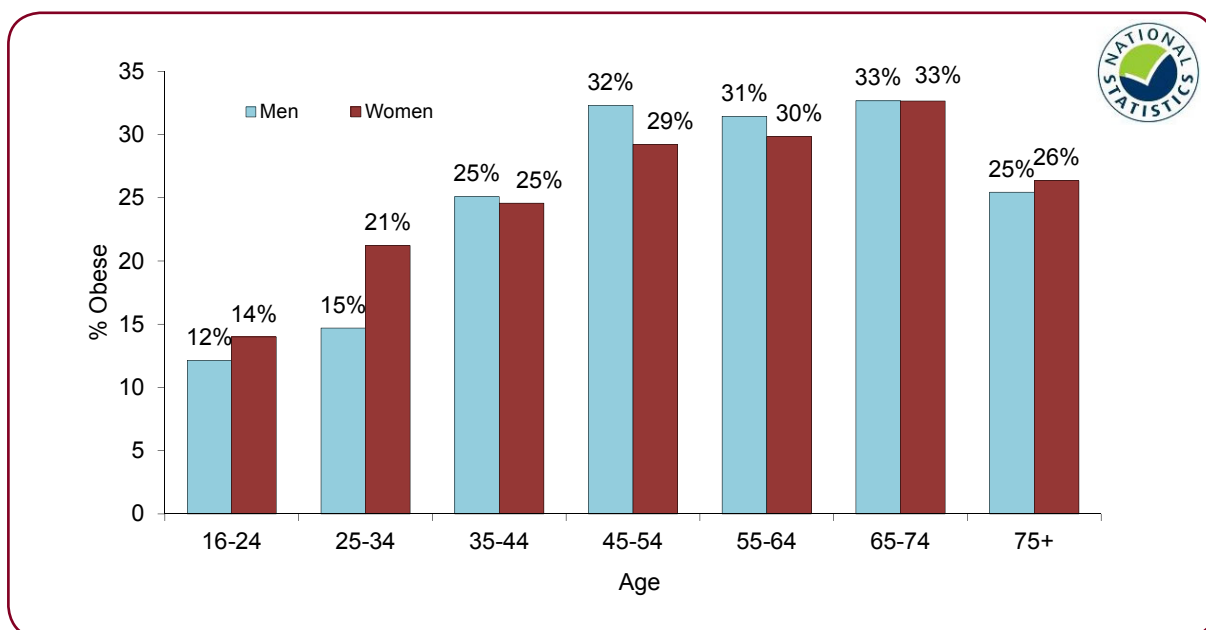
- The percentage of food energy derived from total fat does not vary much with income.
- The percentage of food energy derived from saturated fatty acids rises with income. Quintile 5 is 6.3% above quintile 1. The percentage of food energy obtained from NMES¹⁴ tends to fall when income rises. Quintiles 1 and 2 are 9.1% lower than quintile 5.
- Fruit and vegetable purchases rise strongly with income, 51% more being purchased in the highest income quintile compared to the lowest in 2012.
- In 2012 the highest income quintile purchased an average of 4.8 portions of fruit and vegetables per day. The lowest income quintile purchased 3.2 portions per day. (See Chart 6.3 for trends). The average across all households is 3.9 portions per day.

¹³ Household income adjusted for size and composition using the OECD scale.

¹⁴ 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 adult obesity in England¹⁵



Source: Health Survey for England 2012, December 2013 (NHS Information Centre).

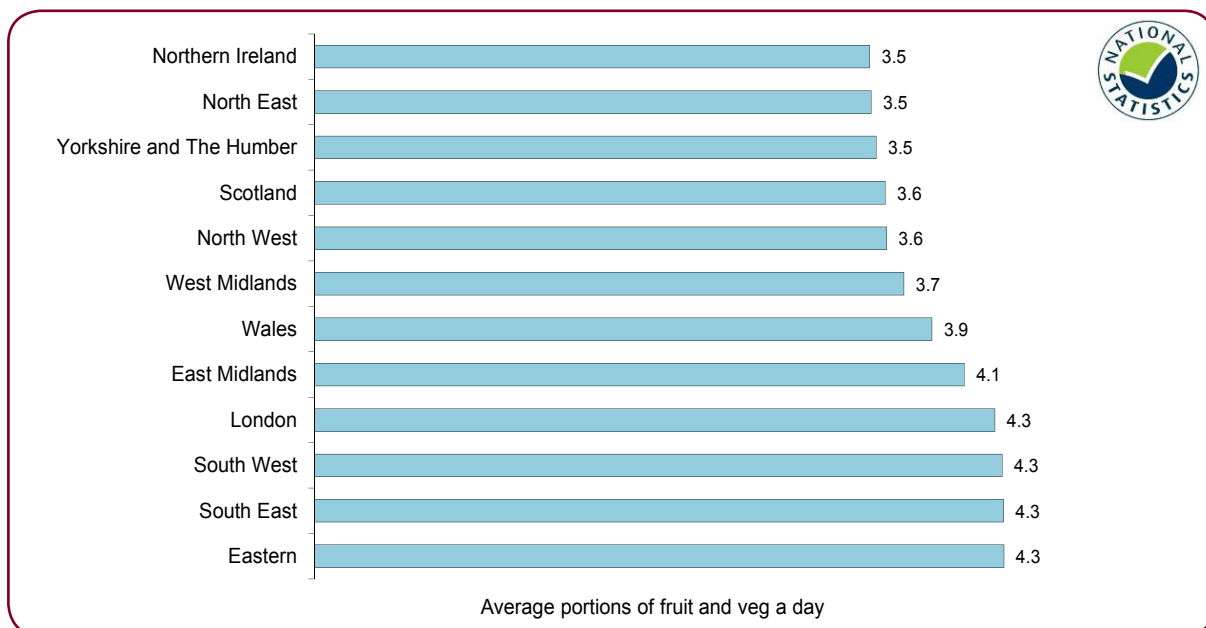
- Health problems associated with being overweight or obese are estimated to cost the NHS around £5bn per year. Obesity is associated with cardiovascular risk and with cancer, disability during old age, decreased life expectancy and serious chronic conditions such as Type 2 diabetes, osteoarthritis and hypertension.
- In 2012 25% of adults were obese and a further 37% were overweight.
- The obesity rate across all men was 24% in 2012, unchanged on 2011. The percentage of overweight (including obese) men was 67% in 2012, a 2% increase on 2011.
- The obesity rate across all women was 25% in 2012. The obesity rate in women aged 65-74 fell 13% in 2011 but increased 15% in women aged 75+.
- The OECD¹⁶ reported in 2011 that the prevalence of overweight and obesity in adults exceeds 50% in 19 of 34 OECD countries.

¹⁵ 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.

¹⁶ The Organisation for Economic Co-operation and Development: Health at a Glance 2011-2018.

Dietary Health

6.11: UK Regional household consumption of fruit and vegetables, 2010-2012¹⁷



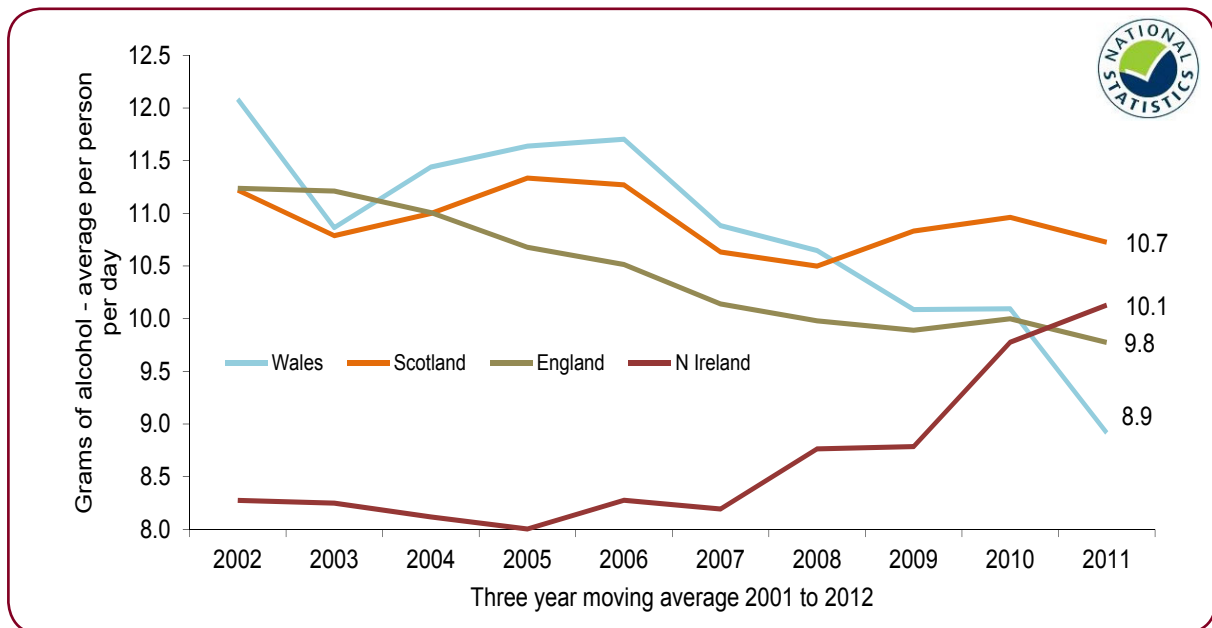
Source: *Family Food in 2012*, Defra, December 2013.

- Combined purchases of fruit and vegetables (excluding potatoes) were consistent across London, South East, South West and Eastern regions, at an equivalent of 4.3 portions per person per day.
- Within England, household purchases of fruit were lowest in the North East, and household purchases of vegetables were lowest in the North West.
- Within the UK, Northern Ireland had the lowest combined total purchases of fruit and vegetables (excluding potatoes) at 3.5 portions per person per day. Purchases of fruit were lowest in Wales.
- Much of the regional variation may be explained by differences in income. In general, purchases of fruit and vegetables increase with income (see Chart 6.9).
- Waste and inedible content are not taken into account here. See Chart 6.3 for trends over time and Chart 5.2 for estimates of edible household waste.

¹⁷ 5 A DAY calculated as all purchases of fresh and processed fruit and vegetables including fruit juice divided by the adult portion size of 80 grams.

Dietary Health

6.12: UK Trend¹⁸ in average alcohol intake (including eating out)



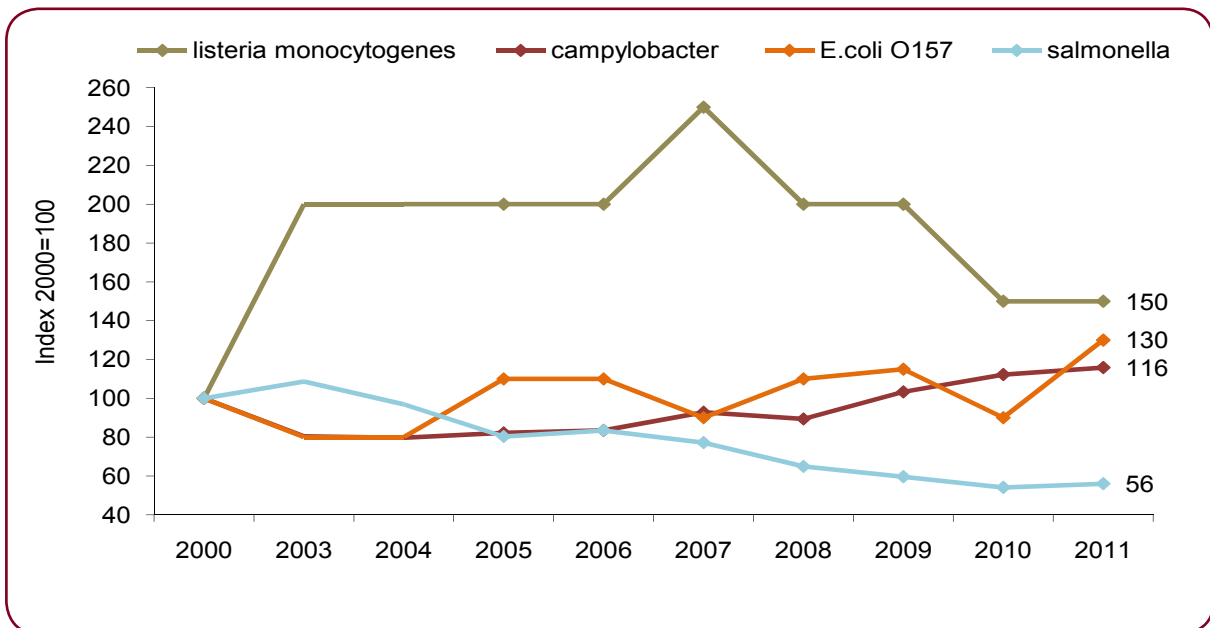
Source: Family Food in 2012, Defra, December 2013.

- Averaged across 2010 to 2012, alcohol intake per person fell in three of the four UK countries, with Wales showing the greatest reduction at 12% to 8.9 grams/person/day.
- Over the last 10 years alcohol intake has been on a downward trend in England and Wales. In Scotland intake has fluctuated but is little changed, whilst in Northern Ireland intake has increased by 22% over the same period.
- Within England in 2012, average alcohol intake was highest in Yorkshire and the Humber, one and a half times higher than London which was the lowest.
- In Scotland in 2012, over 80% of alcohol intake was from household purchases. In London 33% of alcohol intake is from eating out.
- The Department of Health is responsible for Government health policy on alcohol misuse. Regularly drinking above the recommended daily limits significantly increases the risk of ill health.

¹⁷ Three year moving average, 2001 to 2012.

Chapter 7: Safety & Confidence

7.1: Trend in the estimated number of cases of foodborne illnesses in England and Wales¹



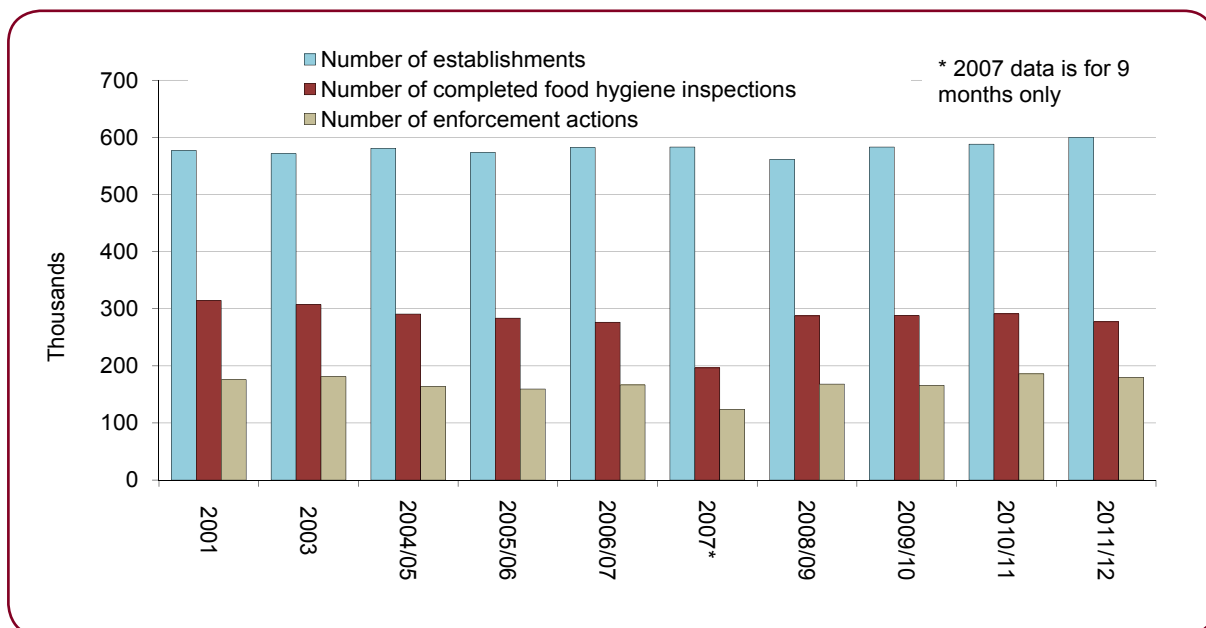
Source: Food Standards Agency using Public Health England data.

- Estimates suggest there are around a million cases of foodborne illness in the UK each year, resulting in 20,000 hospital admissions and 500 deaths.
- Campylobacter is the most common of the four key pathogens and estimated cases increased to 416,400 in 2011, 45% higher than the lowest level in 2004.
- Listeria monocytogenes accounts for the greatest proportion of deaths at 33% of cases.
- There was a small increase in the estimated cases of salmonella in 2011 to 23,300, but longer term, the trend is still downwards.
- Cases of E.coli O157 increased 44% in 2011 to an estimated 1300, largely as a result of one significant outbreak.
- Foodborne illness is caused by contamination by microorganisms or the toxins they produce. Due to lack of precision, the underlying data is rounded to the nearest 100 cases.

¹ Estimates for 2001 and 2002 are not available. Estimates are 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.

Safety & Confidence

7.2: UK Inspections and enforcement actions of food businesses to 2011-12



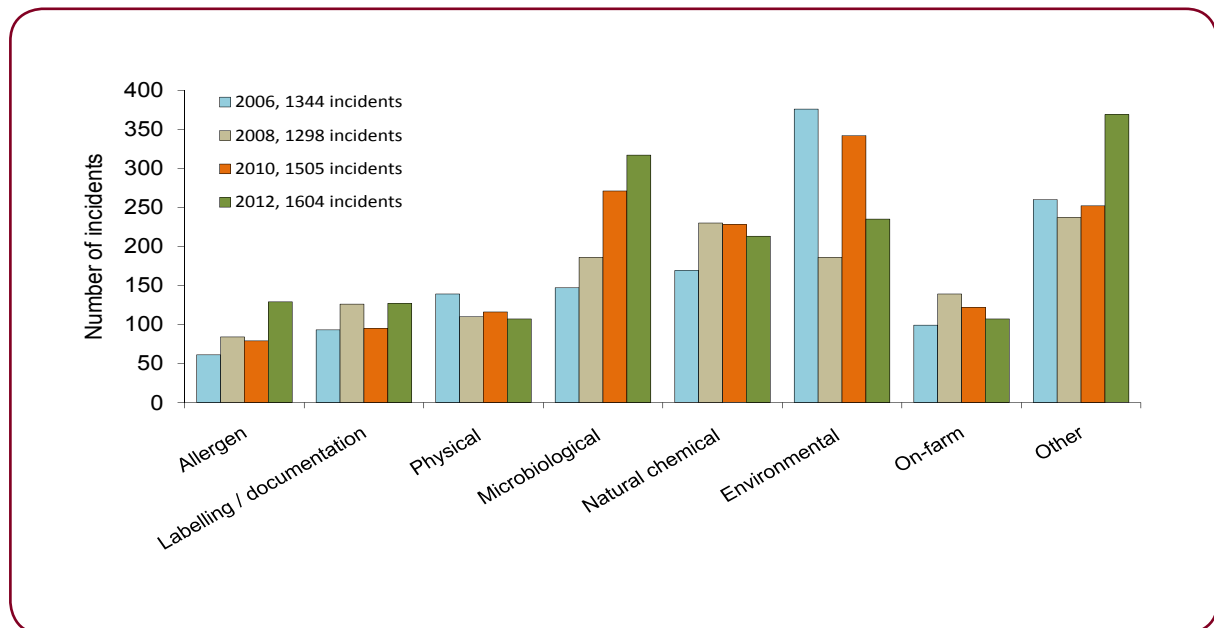
Source: Food Standards Agency Board report on monitoring of food law enforcement activity, 2012

- The 434 UK Local Authorities (LAs) are responsible for inspections and enforcement of food hygiene and food standards legislation. Submitted returns are monitored, audited and reported on by FSA.
- There were 599,880 food establishments under LA control at 31 March 2012, 2% up on 2011.
- 555,350 interventions were carried out by LAs in 2011-12 (422,806 food hygiene and 132,544 food standards), with a continuing trend of targeting higher risk establishments.
- 180,177 formal enforcement actions were carried out in 2011-12, a reduction of 3.2% on 2010-11.
- 6.2% of establishments were not yet risk rated in 2011-12, a small increase from the 5.8% in 2010-11.
- The level of broad compliance and above² was 90.2%.

² Equivalent to the top three tiers of the National Food Hygiene Rating Scheme; a partnership scheme between FSA and LAs in England, Wales and N. Ireland, launched in 2010. Following inspection, hygiene standards are rated on a scale of 0 to 5 where 5 is the highest standard and 0 means urgent improvement is required. A parallel scheme exists in Scotland.

Safety & Confidence

7.3: Contamination incidents investigated by the Food Standards Agency (FSA) by type³, UK 2006-2012



Source: Annual Report of Incidents, 2012 (FSA).

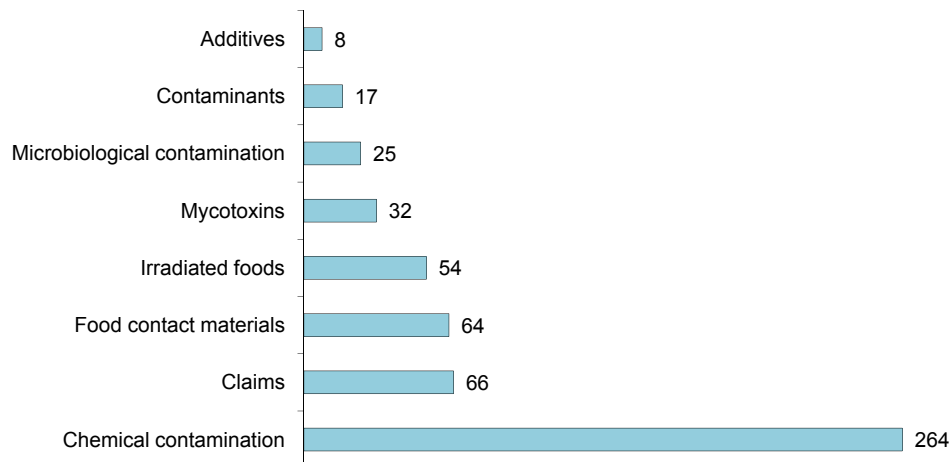
- In 2012, the FSA investigated 1,604 food and environmental incidents in the UK, in its aim to ensure that food produced and sold in the UK and imported food is safe to eat.
- Allergen incidents rose 13% in 2012 to 129 compared to 114 recorded in 2011. Recent legislative changes relating to gluten may have contributed to this increase.
- Microbiological contamination incidents make up the largest proportion of all cases at 20%, with incident numbers increasing steadily since 2006 to 317 incidents in 2012; more than double the number in 2006.
- The FSA's Food Fraud Team collected around 1380 pieces of intelligence which contributes to building a picture of fraudulent activity across the UK⁴.
- The FSA dealt with six high level incidents in 2012, including outbreaks of listeria and E.coli in Northern Ireland, fraudulent export of fish by-products, an outbreak of botulism linked to olives from Italy and contamination of sorbitol with sodium nitrite.

³ 'Other' includes food contact materials, veterinary medicines, use of unauthorised ingredients, pesticides etc. Microbiological contamination is the main cause of food poisoning.

⁴ Data collected in 2012, before the discovery of horsemeat in meat products in January 2013.

Safety & Confidence

7.4: Number of unsatisfactory analyses found in imported food by type, 2011-12



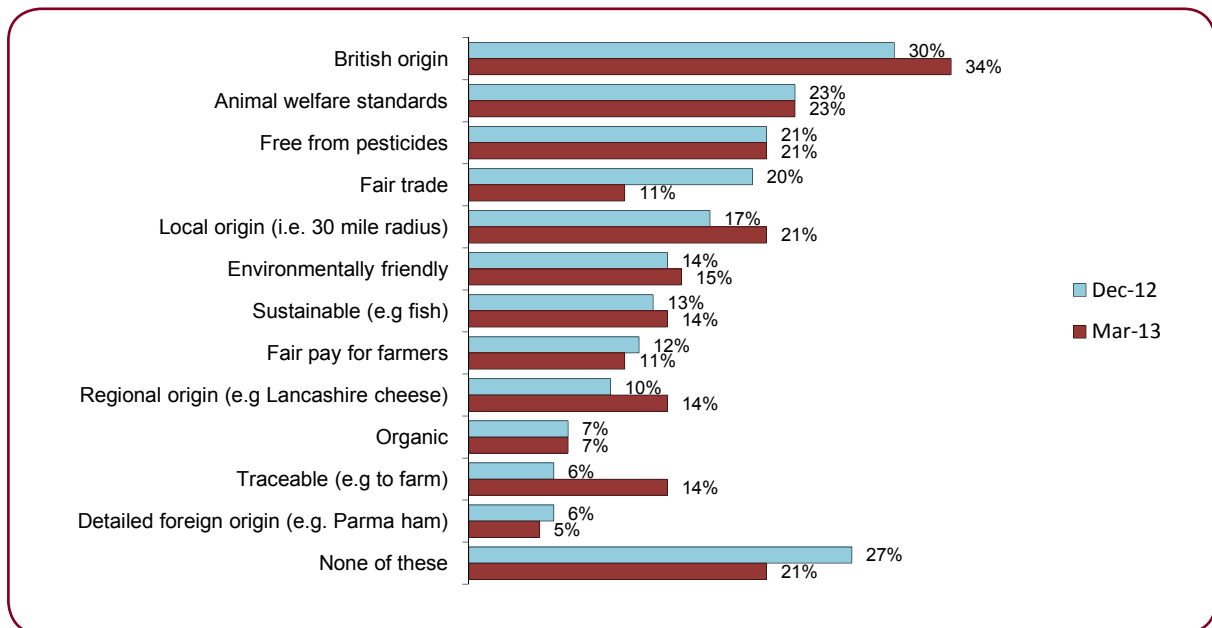
Source: UK Local authorities imported food and feed sampling report 2011-12 (FSA).

- Samples taken as part of this programme are targeted towards areas of known or suspected risk⁵. As a result, it is expected that rates of non-compliance would be higher than those taken as part of randomly-selected foods
- During the 2011-12 sampling programme, a total of 6369 different analyses were carried out. The most commonly sampled food groups were: meat/meat products; fruit and vegetables; bakery products/cereals and herbs/spices.
- The contaminant producing the largest number of unsatisfactory analyses (264) was 'chemical contamination', although this represents only 4.8% of the 5514 samples taken.
- Irradiated foods and food contact materials showed the highest proportion of unsatisfactory analyses at 10% and 6.9% respectively.
- As seen in previous years, Asia was the source continent of the highest number of non-compliances, with the majority of these samples originating from China, India and Thailand.

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

Safety & Confidence

7.5: Factors influencing choice when buying food and non-alcoholic drink

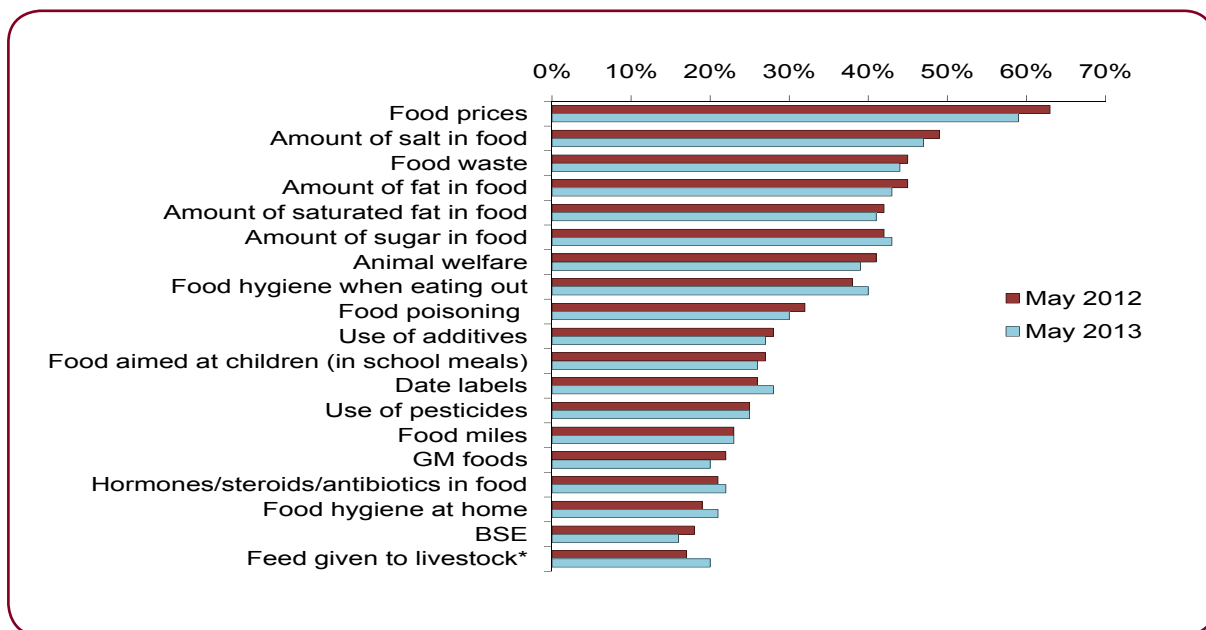


Source: *Consumer Trust in Food*, GMI/Mintel (Base: 1500 internet users aged 16+).

- British origin was deemed the most important factor in consumers' choice of food in both the December 2012 survey wave and its follow up in March 2013.
- Undeclared horsemeat was first discovered in some meat products in January 2013, mid-way between the two waves of the survey.
- In the second survey wave, British, local and regional provenance exerted more influence on consumers, with each of the three factors having increased by four percentage points. It is suggested that the highlighted role of non-UK meat suppliers in the fraud may also have drawn consumers' attention to the complexities of the food supply chain.
- The importance to consumers of traceability increased by 8 percentage points between the two survey waves.
- Almost 9 out of 10 adults in the UK eat animal-based protein, either meat, poultry or seafood. Incidents involving such foodstuffs are likely therefore to provoke a public response.

Safety & Confidence

7.6: Percentage of people concerned about certain food issues⁷, 2012-2013



Source: *Biannual Public Attitudes Tracker⁹*, (FSA) July 2013.

* Statistically significant change from previous wave reported at the 95% confidence level.

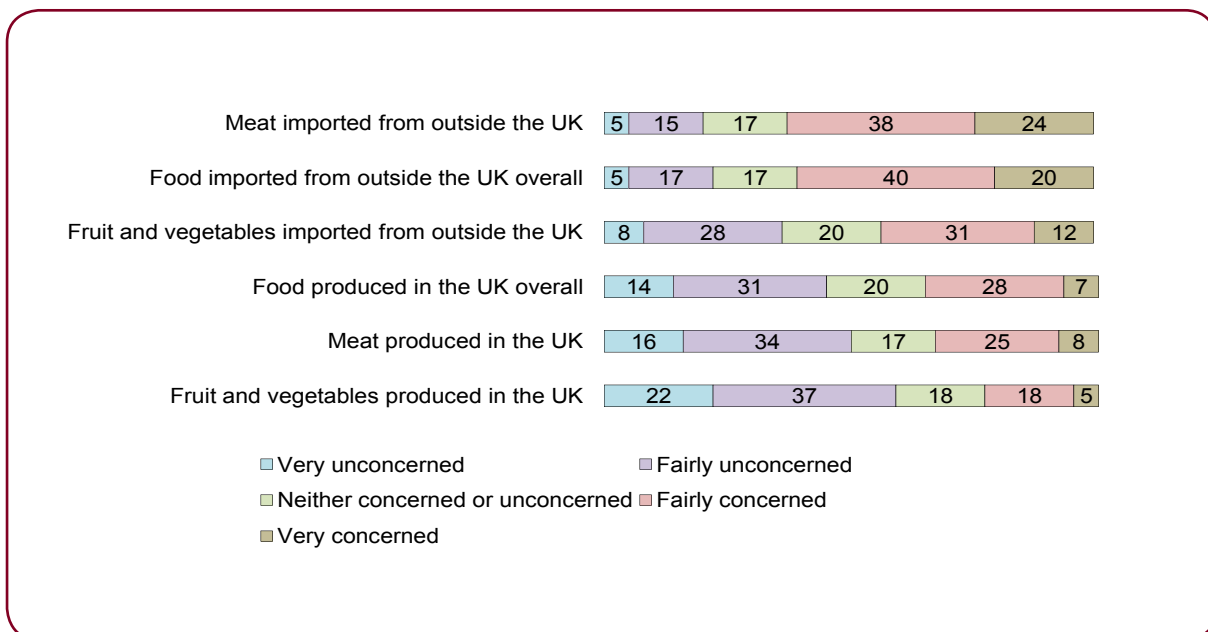
- The main food issue of concern to people is food prices, with 59% concerned in May 2013. This is a decrease from 63% in May 2012 despite food prices still outpacing general inflation.
- Most food issues show a lower level of concern in 2013 than a year earlier. Those showing an increased concern include food hygiene, both at home and when eating out, the amount of sugar in food and date labels.
- Whilst this survey did not specifically ask about horsemeat, a small proportion of respondents (5%) spontaneously reported horsemeat as a food issue of concern in the May 2013 wave.
- Food prices, salt, waste, fat, saturated fat, sugar and food hygiene when eating out are the food issues where more than 40% of people are concerned. In May 2013 21% of respondents reported no food safety issues of concern.

⁷ Based on 'Total' responses (spontaneous plus prompted responses).

⁸ Uses a random location sample (UK).

Safety & Confidence

7.7: Percentage of people concerned about where food is produced



Source: Food and You Survey 2012⁹, (FSA).

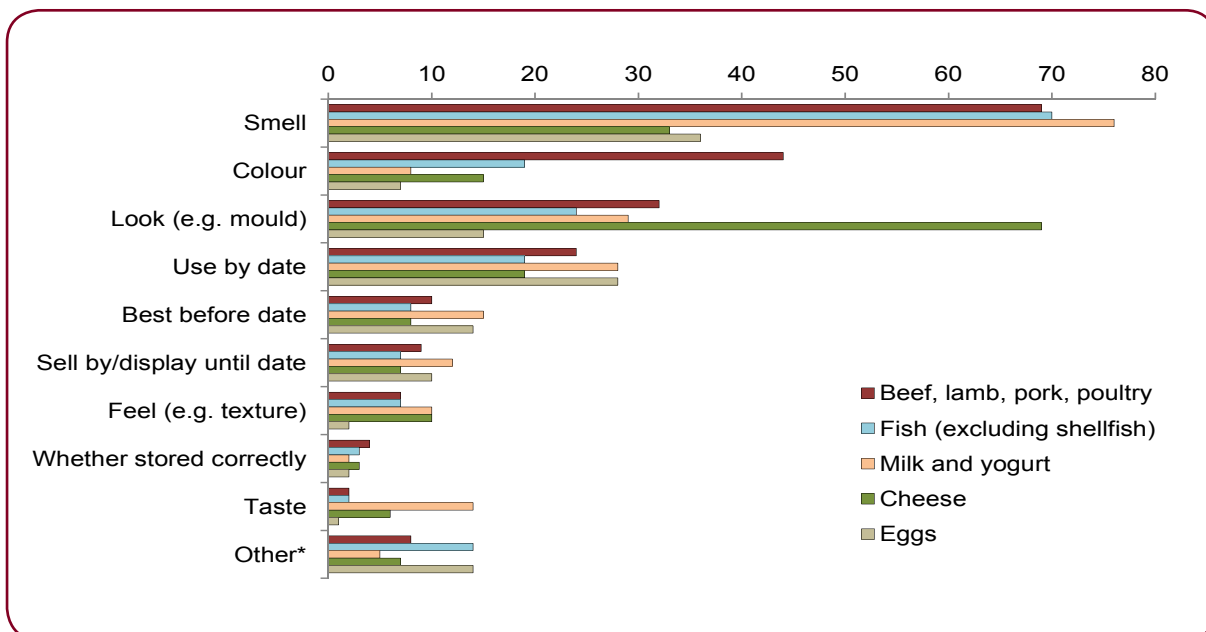
- Food safety in imported products, in particular meat from outside the UK, caused the most concern for respondents¹⁰.
- 62% of survey respondents expressed concern about imported meat, of which 24% were very concerned. This compared with 8% being very concerned and 25% showing some concern for meat produced in the UK.
- 45% of respondents were unconcerned about food produced in the UK, although 28% were fairly concerned.
- The safety of fruit and vegetables produced in the UK concerned the least number of respondents with only 5% being very concerned, whilst 77% expressed either no concern or no opinion.

⁹ Survey sample was a stratified, clustered random probability sample of private UK Households.

¹⁰ This survey was carried out during 2012; therefore these results have not been influenced by the horsemeat fraud activity in early 2013.

Safety & Confidence

7.8: Methods used to assess whether food is safe to eat



*Other includes: unspecified dates, buy fresh, damaged packaging and those that don't know/don't eat/buy a product.

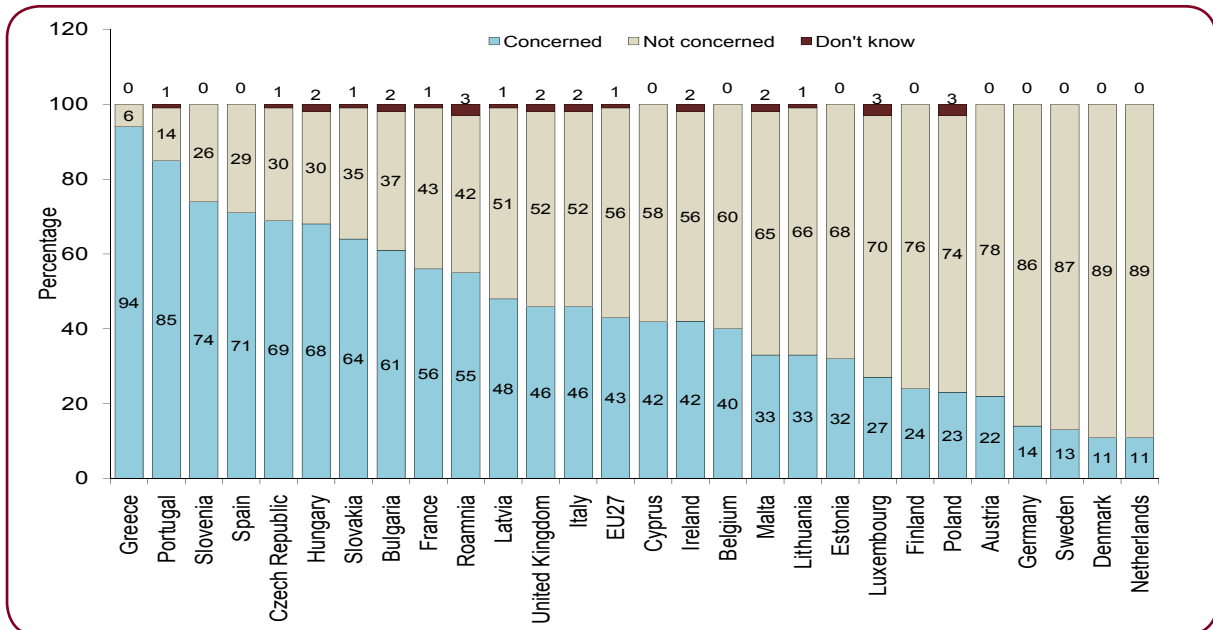
Source: Food and You Survey 2012¹¹, FSA

- FSA guidance is that even if a food looks and smells fine, the use by date is the best indicator of whether it is safe to eat. In 2012, use by dates tended to be the third or fourth most commonly reported method of indicating food safety.
- How food smelled was the method used by between 69% and 76% of respondents to indicate whether meat, fish, milk and yogurt were safe to eat.
- How food looks e.g the appearance of mould, was the most common practice for assessing whether cheese is safe to eat.
- Smell and use by dates were the two most common methods used for assessing the safety of eggs, but 16% of respondents said that their preferred method was whether the eggs floated in water.

¹¹ Survey sample was a stratified, clustered random probability sample of private UK Households.

Safety & Confidence

7.9: Extent of concern across EU whether food production meets population need in 'their own country'



Source: *Europeans' attitudes towards food security, food quality and the countryside*; European Commission, 2012¹².

- People in Greece and Portugal are very concerned about their national food security. 94% of those polled in Greece and 85% of those polled in Portugal expressed concern.
- People in Netherlands, Denmark, Sweden and Germany are less concerned about national food security.
- Across the EU (most Member States) 76% expressed concern that sufficient food is produced to meet the needs of the world's population.
- Across the EU (most Member States) 43% expressed some degree of concern that sufficient food is produced to meet the needs of their country.
- In 17 out of the 27 Member States the proportion of respondents who are not concerned about food production in their own country is greater than the proportion of those who are concerned.

¹²A survey of 26,593 respondents across the 27 Member States of the European Union between 10th and 25th March 2012.

Glossary

Economic Definition of food and agri-food sector

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.

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.

Glossary

Low income

The most commonly used threshold to determine relative low income is having an income which is less than 60% of the median in that year.

Absolute low income is considered to be having an income which is less than 60% of the median in that year, adjusted by the inflation level of (currently) 2010-11.

Equivalised income

The income a household needs to attain a given standard of living will depend on its size and composition. Equivalisation is a means of adjusting a household's income for size and composition so that the incomes of all households are on a comparable basis.

Small and Medium Enterprises (SMEs)

Outside of these statistics, the definition of a SME can depend upon several factors, including turnover. For these statistics, a 'small' business is a private sector business with fewer than 50 employees. A 'medium' business is a private sector business with between 50 and 249 employees.

A 'micro' business is a private sector business with between 1 and 10 employees, which, for the purpose of these statistics is incorporated within the 'small' category.