



# Food



# Statistics



# Pocketbook



# 2015



Department  
for Environment  
Food & Rural Affairs



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# **Food Statistics Pocketbook 2015**

**Department for Environment, Food and Rural Affairs**

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This publication provides a concise round-up of statistics on food covering the economic, social and environmental aspects of the food we eat. 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.

Associated datasets containing all charts and key data sources from this year's publication are 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.



## **Related Defra publications:**

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

## **Production team:**

Andrew Scaife, Julie Rumsey, Isabella Hayes, David Lee

email: [familyfood@defra.gsi.gov.uk](mailto:familyfood@defra.gsi.gov.uk)

Tel: 01904 455249

Food Statistics team  
Department for Environment, Food and Rural Affairs  
Foss House, Kings Pool  
1-2 Peasholme Green  
York YO1 7PX  
Tel: 01904 455249

## The Agri-Food Chain



Agriculture



Manufacturing



Wholesaling



Retailing



Catering



**£103bn**

The agri-food sector contributed £103 billion, or 6.9% to national Gross Value Added in 2013



**3.8m**

People employed in the agri-food sector in 2014. 13% of national employment.



**£18.8bn**

The value of food and drink exports in 2014. Beverages are the largest export category by far, at £6.5bn.



**↓ 2.1%**

Food prices fell by 2.1% in real terms in the last 12 months, following a 5 year period when food prices were rising faster than general inflation.



**£198m**

Total consumer expenditure on food, drink and catering in 2014. On average, around 11% of all household spending is on food.



**4.0**

Purchases of 5 A DAY increased to 4 portions in 2013. Low income group households bought the least fruit and veg: 3.2 portions per person/day.



**£470**

The average UK household spend on food that could have been eaten but is thrown away is around £470 a year.



**1,645**

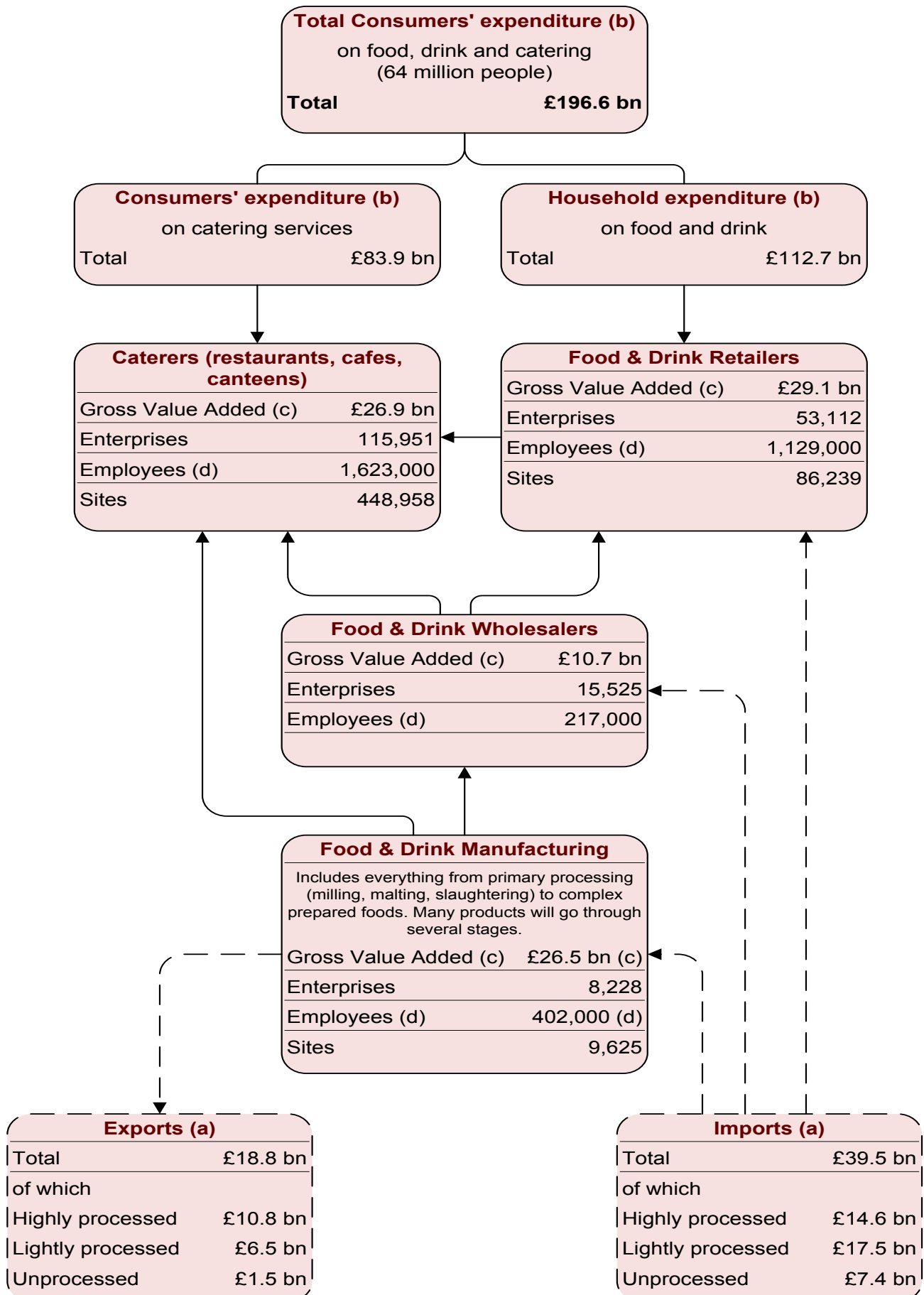
Food and environmental incidents investigated by the FSA in 2014. 58% of incidents were classified as minor, with localised effects and few, if any, food safety implications.



**70m**

Emissions from the food chain in tonnes of CO<sub>2</sub> equivalent. Farming accounted for 56m.

# 1 Food Chain







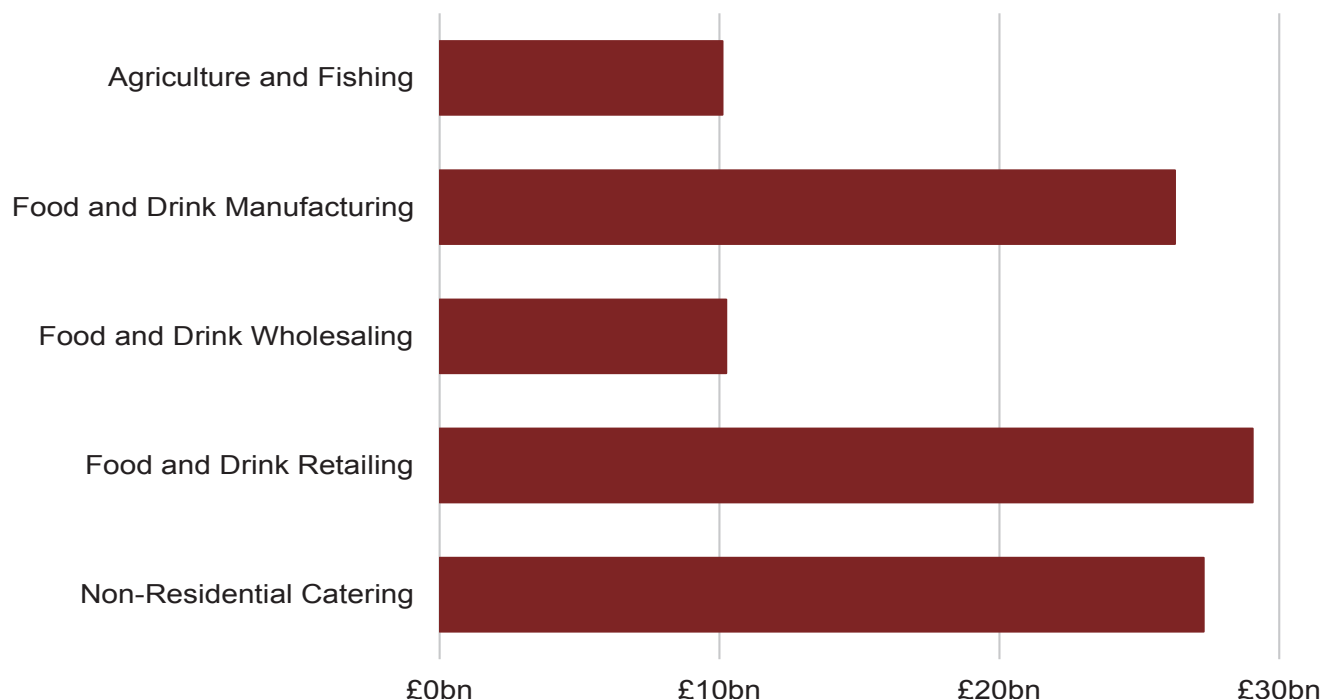
## 1.1: Economic summary of the UK food chain beyond agriculture<sup>1</sup>

- (a) Overseas trade data is full year 2014 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 2013, calculated at basic prices (market prices less taxes plus subsidies).
- (d) Agricultural wholesaling includes an estimate of employment of wholesalers of agricultural machinery from the Annual Business Survey. (Employee data is rounded.)

---

<sup>1</sup> Excludes sectors downstream from food and drink manufacturing such as the food and drink supply industry (food processing machinery).

## 1.2: Gross Value Added of the UK agri-food sector, 2013



The agri-food sector contributed £103.0 billion or 6.9% to national Gross Value Added in 2013.

The GVA of the food sector (excluding agriculture) increased 5.5% in 2013, following a 1.3% increase in 2012. Manufacturing and retailing sector GVA both increased by 7.0%, wholesaling by 5.1% and catering by 2.6%.

Longer term, the food sector (excluding agriculture) increased by 58% between 2000 and 2013 while the whole economy increased by 68%. 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.

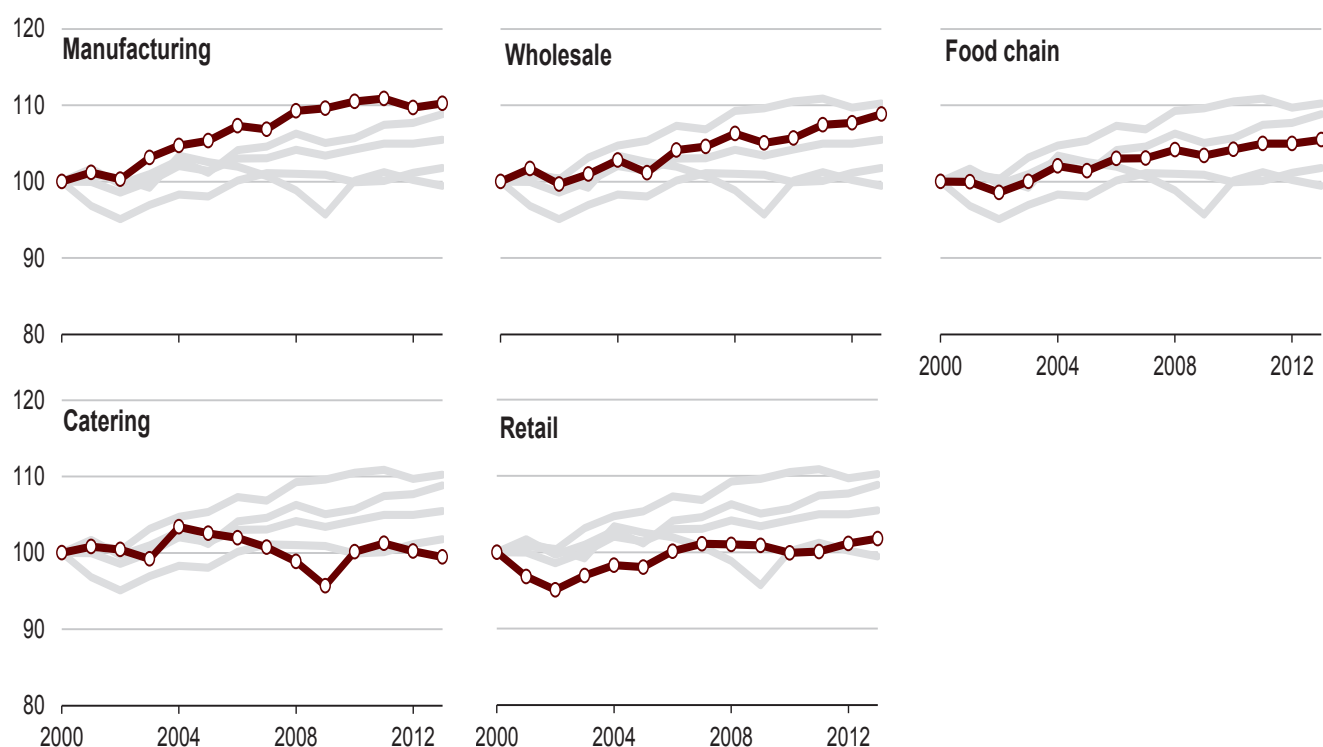
In 2013, there was a net increase of 5360 in the number of registered enterprises in the food sector. Five year survival rates for businesses started in 2008 were 43% for food and drink manufacturing and 36% in non-residential catering<sup>2</sup>.

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



<sup>2</sup> Business Demography, Enterprise Births, Deaths and Survivals, ONS 2014

### 1.3: Trends in the total factor productivity<sup>3</sup> of the UK food sector<sup>4</sup>



Total factor productivity (TFP) of the food sector excluding agriculture increased by 0.5% between 2012 and 2013, having risen gradually since 2002. Benchmarking against a wider economy measure shows the average annual growth in the food sector between 2004 and 2013 was 0.5% compared to 0.1% in the wider economy.

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 2013 have fallen to below base levels.

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.

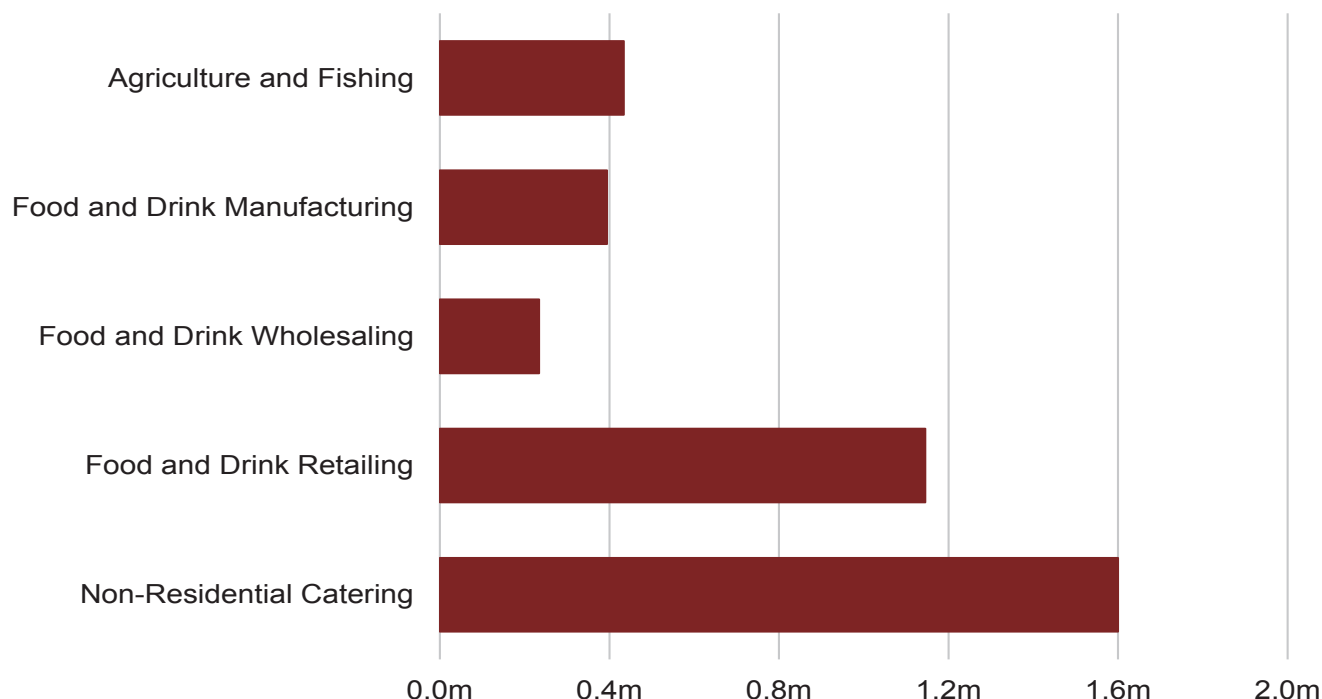
Source: *Total Factor Productivity of the United Kingdom Food Chain 2000-2013*, Defra, July 2015.



<sup>3</sup> See Glossary for definition of Total Factor Productivity.

<sup>4</sup> Wholesaling includes tobacco (SIC 46.35).

## 1.4: Agri-food sector employees (GB)<sup>5</sup>, Q1 2015



The food sector in GB employed 3.4 million people in Q1 2015 (3.8 million if agriculture and fishing are included along with self-employed farmers), a 4.0% increase on Q1 2014. It covered 11.9% of GB employment in Q1 2015 (13.4% if agriculture and fishing are included along with self-employed farmers).

Non-residential catering accounts for 47% of the post-farm gate food chain. Employment in this sector increased 4.9% on Q1 2014, equating to around 75,000 jobs. Retailing accounts for around one third of food chain jobs (excluding agriculture) and also increased year on year by 1.3%, or around 15,000 jobs.

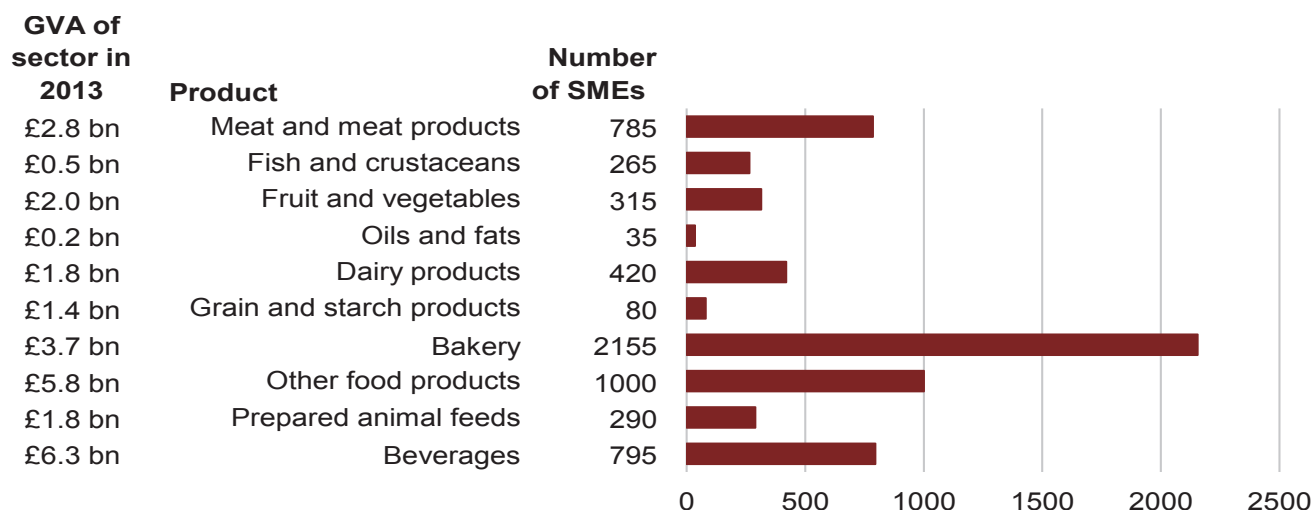
In Q1 2015, one half of food sector jobs were part time. Women accounted for 57% of employees in food retailing and 51% in non-residential catering. Men accounted for 65% of employees and 69% of hours worked in food manufacturing.

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



<sup>5</sup> Food' includes non-alcoholic drinks. 'Drink' is alcoholic drinks

## 1.5: UK food and drink manufacturing by product type<sup>6</sup>



There were approximately 6100 micro, small and medium sized enterprises (SMEs) in the food and drink sector with turnover of around £22 billion and 127,000 employees in 2014. In the food sector (excluding beverages) SMEs accounted for 96% of businesses, 30% of employment and 24% of turnover. More than a third of the 6100 SMEs are manufacturers of bakery products.

In terms of Gross Value Added (GVA) beverages (including soft drinks and mineral water) is the largest manufacturing group with a of £6.3 billion in 2013; contributing 30% to the total food and drink manufacturing GVA. Alcoholic beverages contributed £4.8 billion of the total beverages GVA in 2013.

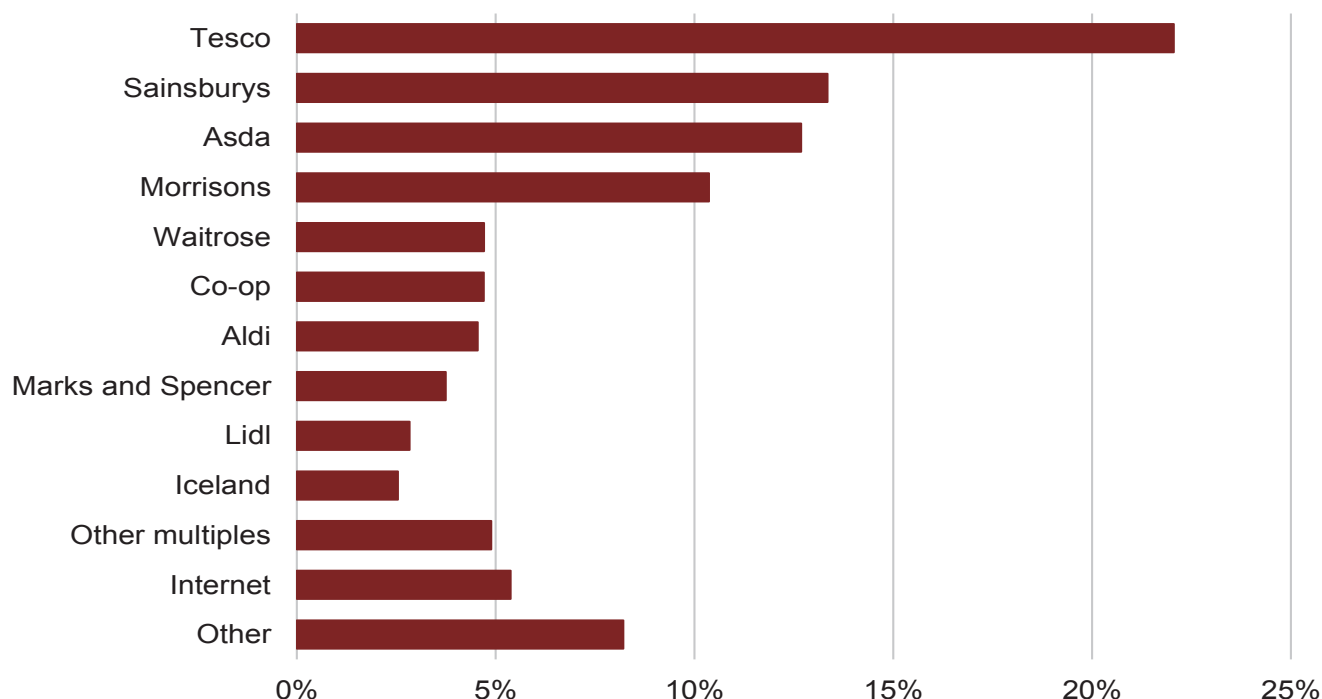
The 'other food products' category had a GVA of £5.8 billion. This includes items such as prepared meals, confectionery, condiments and seasonings.

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



<sup>6</sup> For disclosure reasons some small contributions (less than 4% overall) to food and drink manufacturing GVA have been treated as zeros.

## 1.6: UK grocery market shares 2013



The combined market share of food and non-alcoholic drinks of the largest four food and drink retailers was 58% in 2013, down from 62% in 2012. Tesco commanded the largest market share at 22%, a decrease of 2 percentage points on 2012. The three largest discounters (Aldi, Iceland and Lidl) had a combined market share of 9.9%, up from 7.9% in 2012. Internet food shopping, which includes the largest supermarkets, increased by 1 percentage point on 2012, to 5.4% of sales of food and non-alcoholic drinks.

Data comes from the Living Costs and Food Survey which is fully representative of UK household food shopping.

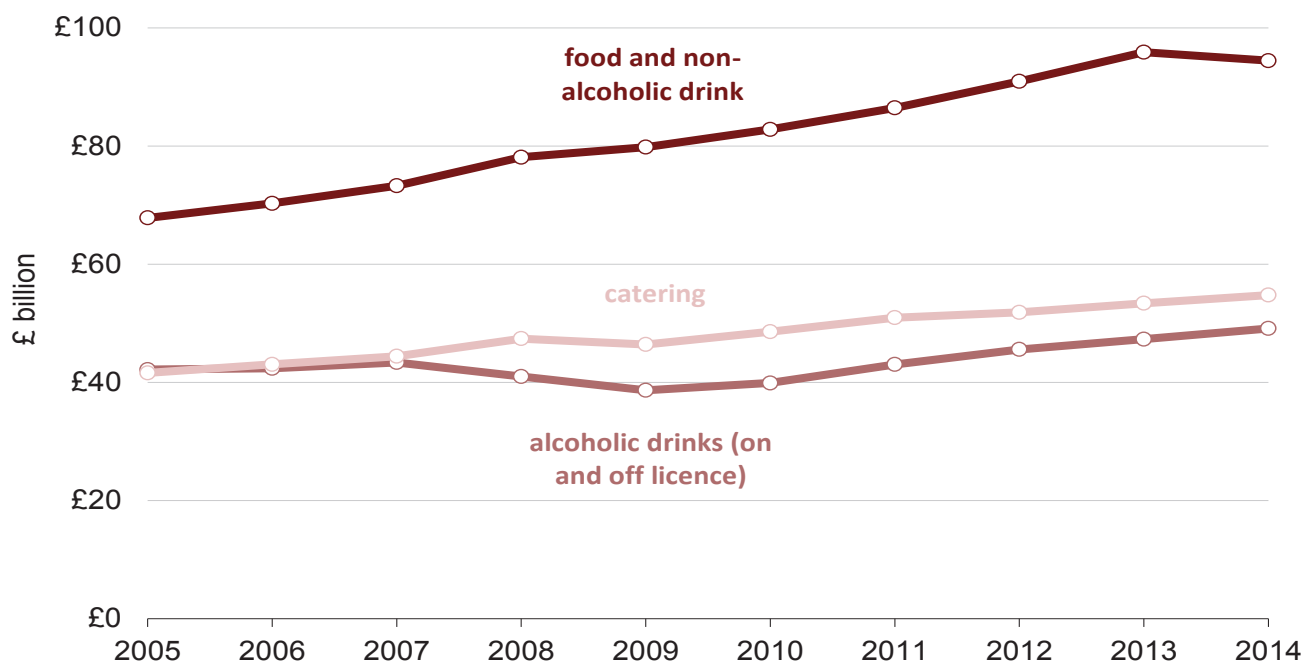
Alternative market share estimates from the Kantar Worldpanel<sup>7</sup> are more up to date although not restricted to foods and not as representative. In 2015 compared to 2014 (based on 12 weeks ending 16 August) Kantar Worldpanel shows Aldi and Lidl gaining 0.8% and 0.5% respectively, whilst Tesco fell 0.5% and Asda 0.6%.

Source: Living Costs and Food Survey (LCFS) 2013, (Defra/ONS)



<sup>7</sup> 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.

## 1.7: UK Consumer expenditure on food<sup>8</sup>, drink and catering



Total consumer expenditure on food, drink and catering has continued to rise, by 0.9% in 2014 to £198 billion. However, expenditure on food (including non-alcoholic drinks) fell for the first time in ten years, by 1.5% to £94 billion. Spend on alcoholic drinks increased 3.9% and catering increased 2.6%.

Spend on food shopping has increased 29% since 2007. In 2014 it accounted for 48% of spend in the sector. Spend on catering accounted for 28% of sector spend in 2013 and has increased by 23% since 2007.

Spend on all alcoholic drinks accounted for 25% of sector spend in 2014. It has increased by 13% since 2007. Spend reduced between 2007 and 2009, but has increased yearly thereafter.

Source: *Consumer Trends*, (ONS).

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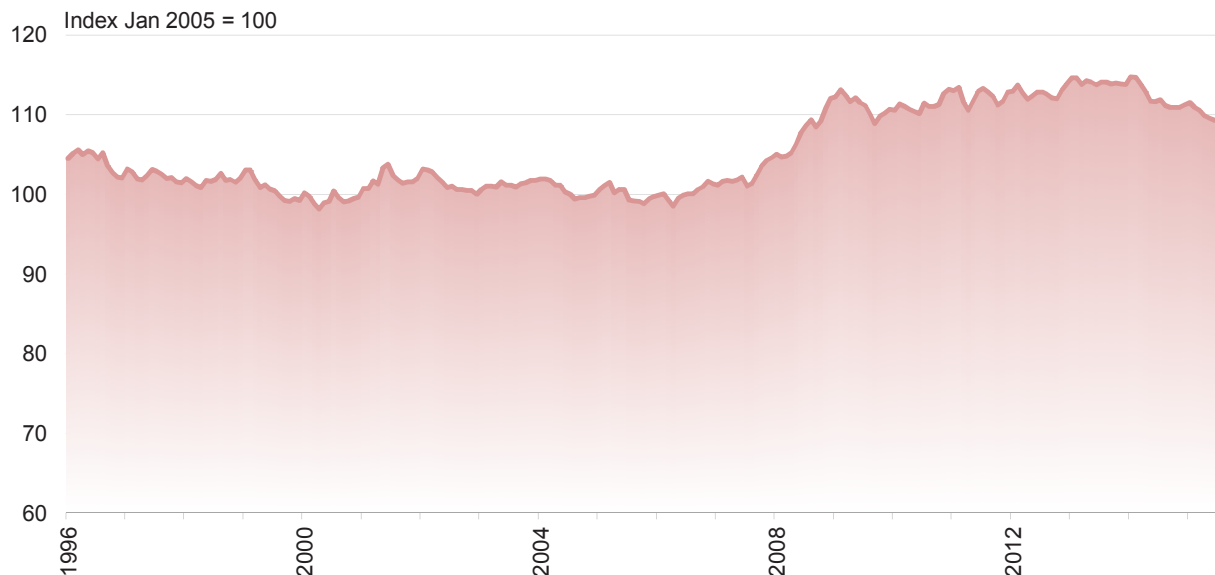


<sup>8</sup> Food' includes non-alcoholic drinks. 'Drink' is alcoholic drinks

## 2 Prices and Expenditure



### 2.1: UK trend in food prices in real terms, January 1996 to June 2015<sup>1</sup>



Food prices rose 11.5% in real terms between 2007 and their peak in June 2012 as measured by the Consumer Price Index, following a long period in which they had fallen. Gradual price reductions since 2013 have reduced that real terms increase to 8.0% compared to 2007.

In the past 12 months food price inflation has fallen in real terms by 2.1%.

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.

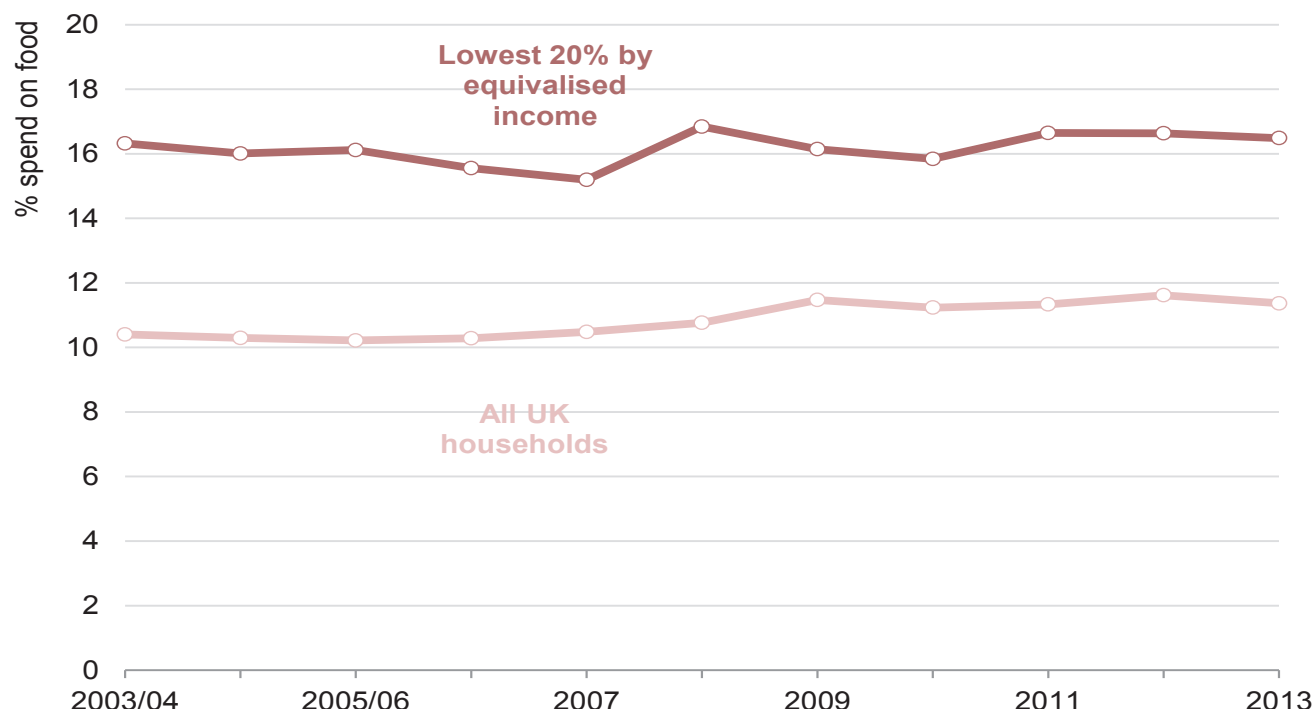
Source: *Consumer Price Indices*, (ONS).



<sup>1</sup> Excludes alcoholic drinks and catering.



## 2.2: Trend in share of spend going on food and drink<sup>2</sup> in low income and all UK households, 2003-04 to 2013



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 11.4% of spend went on food in 2013, 0.9 percentage points above the 2007 level.

For households in the lowest 20% by equivalised income<sup>3</sup> 16.5% of spend went on household food, 1.3 percentage points above 2007.

In 2013, the energy content of household food purchases in income decile 2 was 13.0% lower than in 2007 at 1944 Kcals/person/day; in decile 1 the energy content was 8.3% lower than in 2007 at 1803 Kcals/person/day.

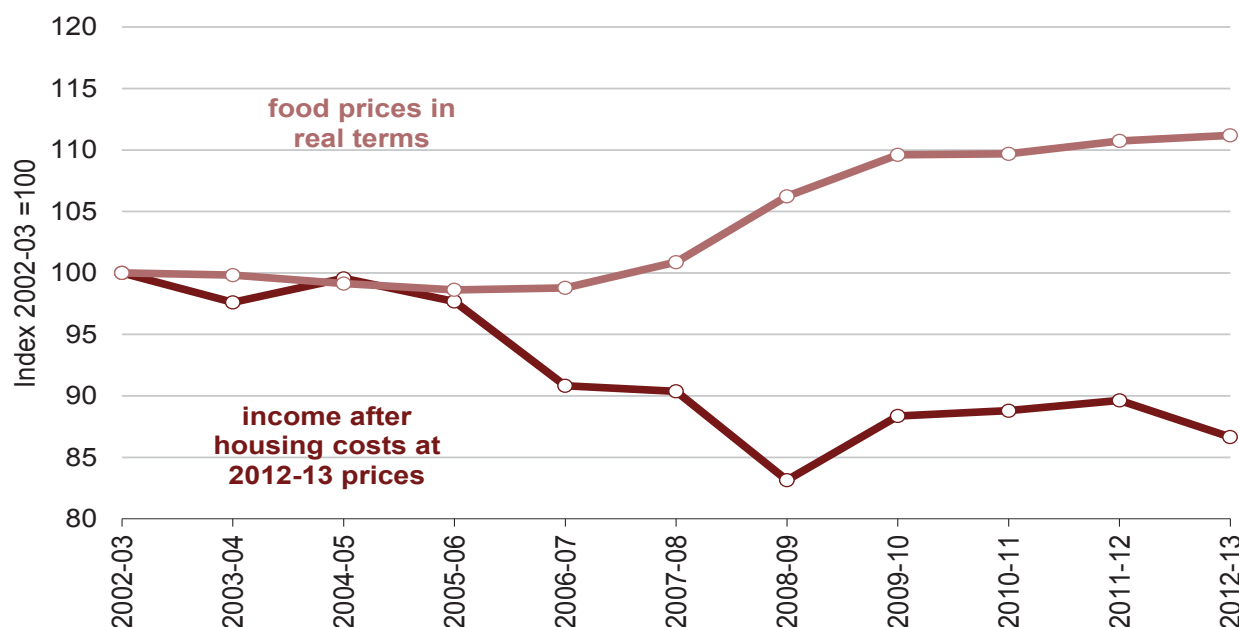
Source: *Living Costs and Food Survey (Defra/ONS)*, *Family Spending table 3.2e (ONS)*.



<sup>2</sup> Excluding alcoholic drinks.

<sup>3</sup> See Glossary for definition of equivalised income.

## 2.3: Income decline after housing costs, low income<sup>4</sup> decile (UK)



Median income after housing costs fell 6% between 2003-04 and 2013-14 for low income decile households. Over the same time period, food prices (in real terms) increased 12%. In 2008-09 the median income for low income decile households reached its lowest level, 17% below that of 2002-03. Small increases between 2009 and 2011 were partially reversed in 2012 and 2013.

In 2013-14, all income groups with the exception of the lowest, saw increases in median income of between 0.1% and 2.4% (deciles 2 and 8). The lowest income decile decreased by 0.9%. All but the lowest income decile group are above the 2003-04 level.

The most commonly used threshold of low income in the UK is having an income which is less than 60% of the median. In 2013-14 the percentage of individuals in relative low income (before housing costs) was 15%<sup>5</sup>, equating to around 9.6 million individuals.

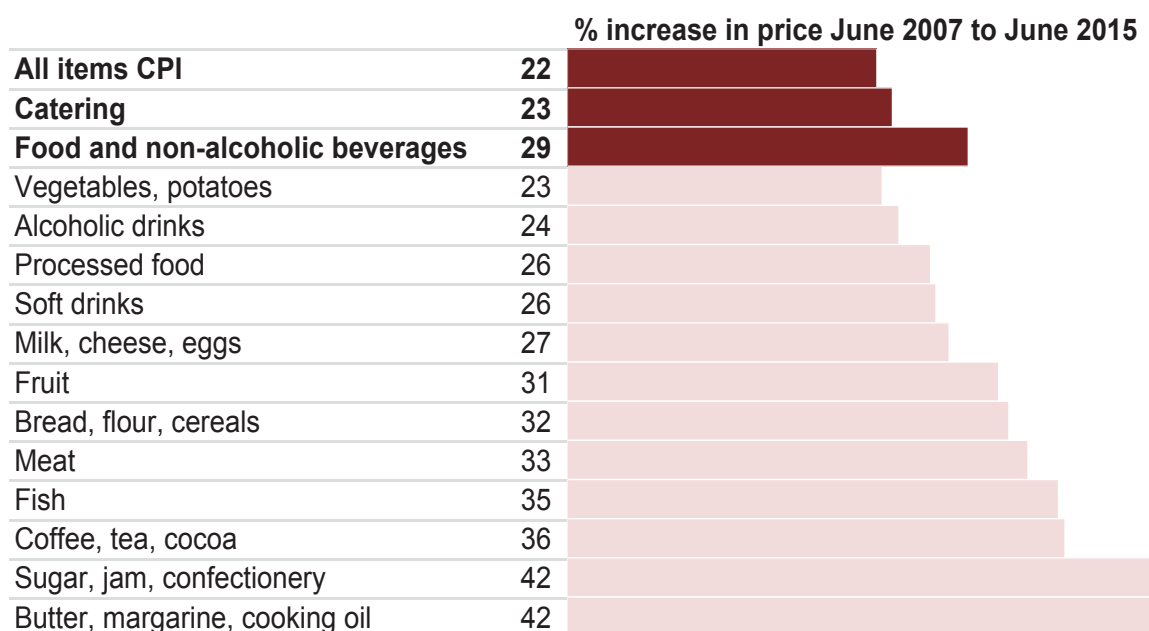
Source: *Living Standards, Poverty and Inequality in the UK, 2015; Institute for Fiscal Studies.*



<sup>4</sup> See Glossary for definition of Low income.

<sup>5</sup> Households Below Average Income, ONS July 2014.

## 2.4: UK retail price changes by food group, 2007 to 2015



All foods groups have risen in price since 2007 (the start of the recession), with rises ranging from 22% to 42%. Meat, fish, coffee, tea and cocoa, fruit, sugar, jam and confectionery prices have all risen by 30% or more since June 2007. Food prices (including non-alcoholic drinks) rose 8.0% in real terms between 2007 and 2015.

Rising prices seen up to 2014 have begun to fall in the year to June 2015 in all food groups with the exception of fruit and catering. Catering increased by 1.5%, while fruit prices rose by 1.4%

Butter, margarine and cooking oils saw the greatest fall, down by 9.2% in the year to June 2015. Prices for bread, flour and cereals, meat, milk, cheese and eggs, soft drinks, processed food and alcoholic drinks all fell by more than 2.0%.

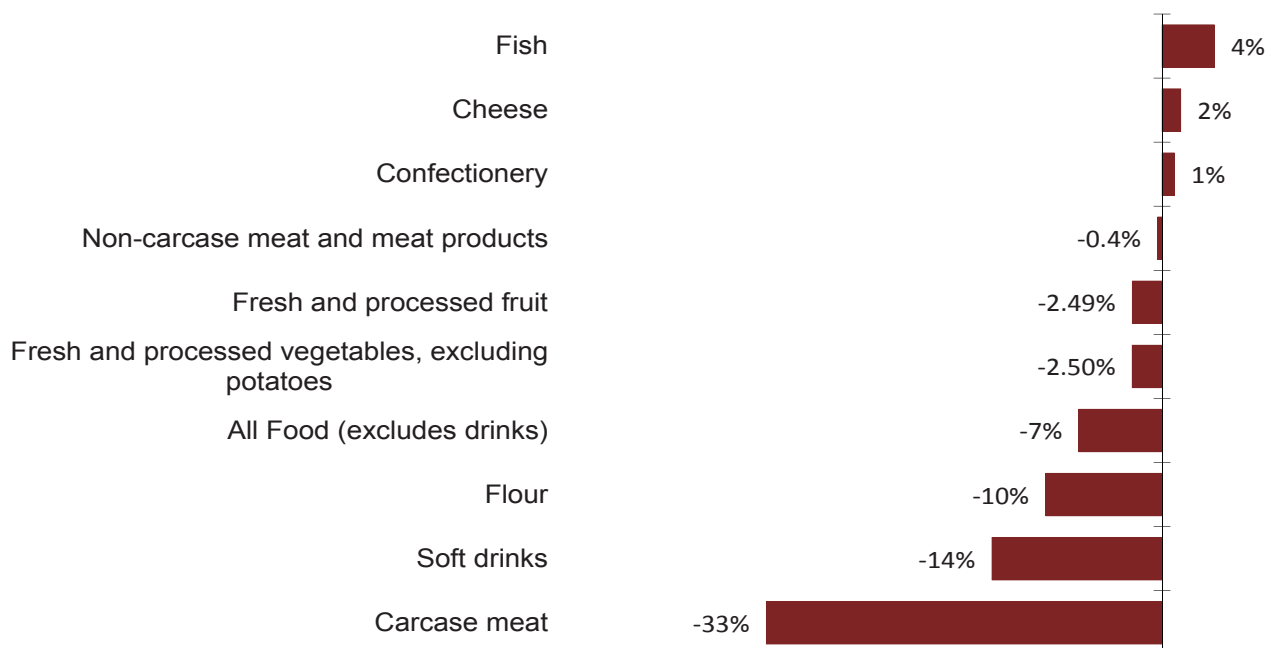
Food price rises have a strong effect on food shopping for low income households. Since 2007, households in income decile 1 (lowest income group) bought less beef, bacon, butter, fish, fruit, tea and biscuits/cakes, but bought more pork, poultry and eggs<sup>6</sup>.

Source: *Consumer Price Indices*, (ONS).



<sup>6</sup> Family Food 2013, Defra, December 2014.

## 2.5: Percentage change in food purchases 2007-2013, in low income households (UK)



In 2013 compared to 2007, the lowest income households (equivalised income<sup>7</sup> decile 1) purchased 33% less carcase meat, 14% less soft drinks and 10% less flour.

Purchases of fish increased (4.4%) between 2007 and 2013 and purchases of cheese increased 1.6%.

Between 2007 and 2013, average households traded down to cheaper products to save 7% while the lowest income households traded down to a much lesser extent, possibly as they were already buying cheaper products.

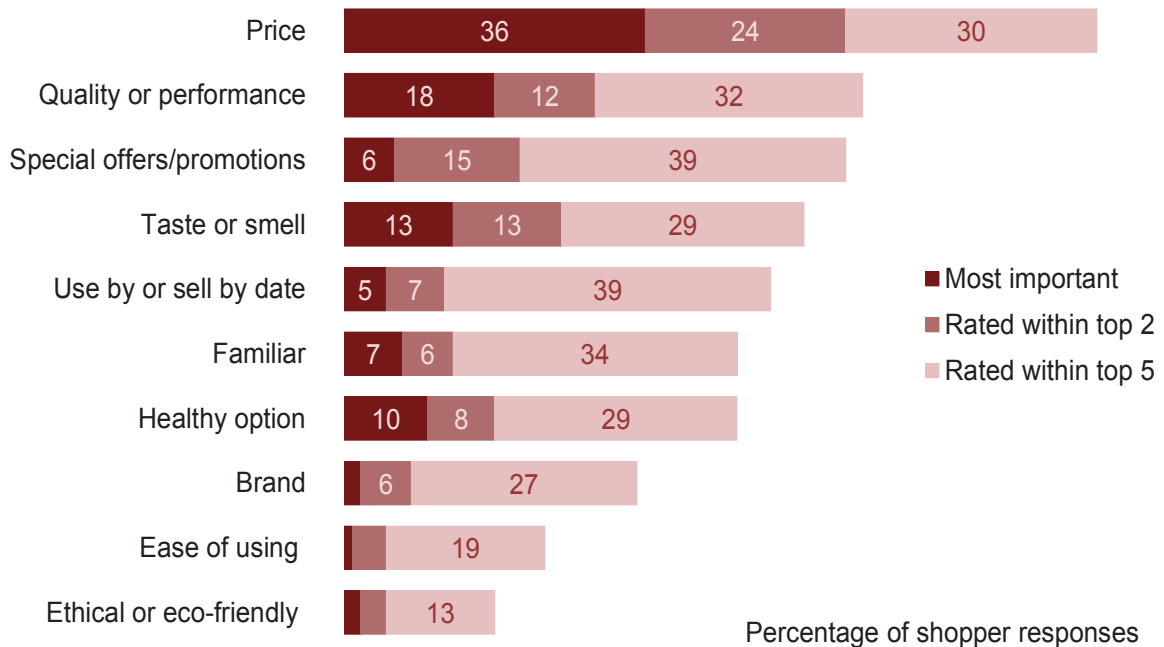
Food is the largest item of household expenditure for low income households after housing, fuel and power costs.

Source: *Family Food 2013*, Defra.



<sup>7</sup> See Glossary for definition of equivalised income

## 2.6: Factors influencing consumer product choice<sup>8</sup>



Price is increasingly important in driving product choice, with 36% of shoppers naming it as the most important factor and 90% listing it within their top five influences. Quality was rated as the highest influence by 18% of respondents, followed by taste or smell (13%) and healthy (10%).

Quality is highly influential with 62% listing it in the top 5 factors, although only 18% considered it most important. Only price featured more highly as a top 5 influence.

Use by dates were considered most important by only 5% of shoppers although half (51%) of shoppers included it in their top 5 influences. Taste or smell were considered most important by 13% of shoppers. Familiarity and brand names still have a sway in many purchase decisions, with 47% and 35% of shoppers naming them in their top 5 influences.

Ethically produced products and whether a product was easy to use were considered least important factors with 18% of shoppers listing them in their top 5 influences.

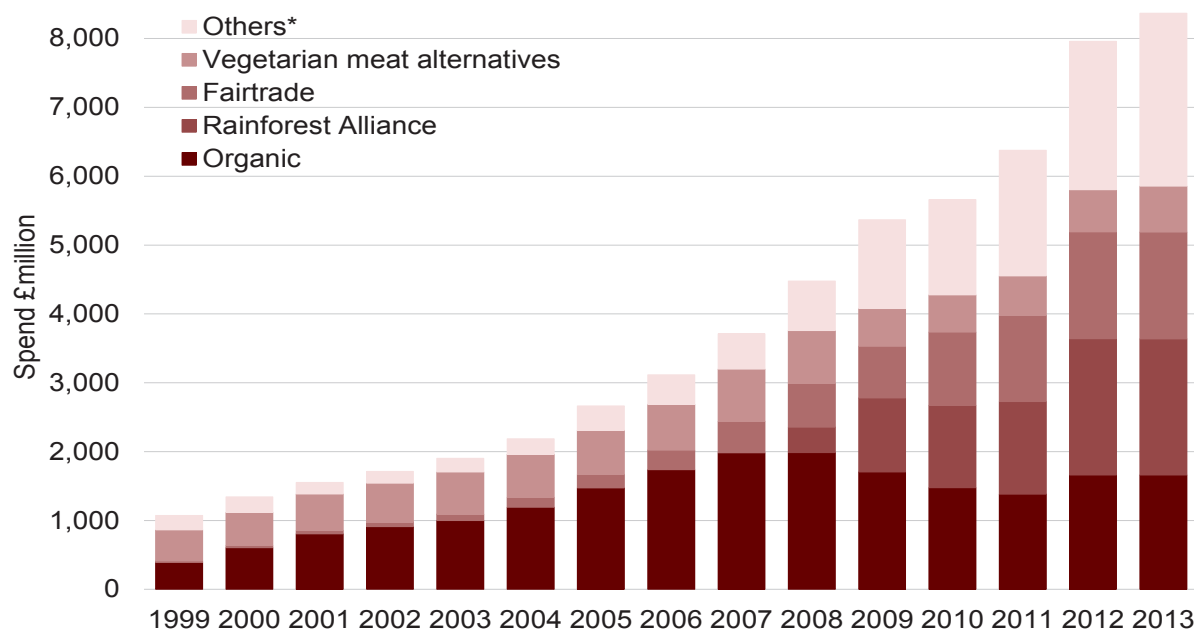
Table 7.4 shows another analysis of consumer product choice relating to ethical and environmental factors.

Source: IGD ShopperVista 2014.



<sup>8</sup> IGD ShopperVista 2014, base: all main shoppers, fieldwork June 2014. Sample is managed to be representative of main grocery shoppers but may contain unquantifiable biases.

## 2.7: UK trend in sales of ethical produce



\*Others include free range eggs and poultry, freedom foods and sustainable fish.

Sales in “ethical” food and drink, including organic, fair-trade, free range and freedom foods rose to £8.4 billion in 2013<sup>9</sup>, 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.

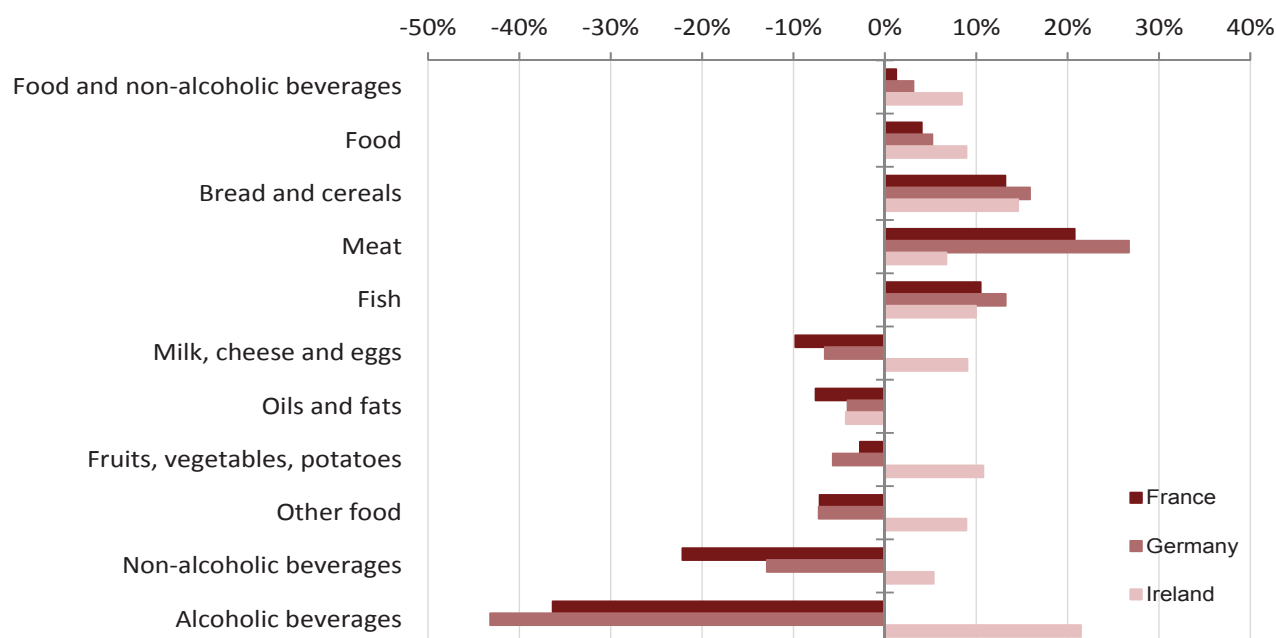
Figures are determined by the Ethical Consumer Market Report by The Ethical Consumer Research Association based on administrative data held by ethical labelling organisations, trade associations and market research data.

Source: *Ethical Consumer Market Report 2014*, Ethical Consumer Research Association.



<sup>9</sup> Excludes food and drink boycotts.

## 2.8: Food prices in selected countries compared to the UK, 2014



Based on price level indices<sup>10</sup>, in 2014 food and non-alcoholic drinks were 1% more expensive in France, 3% more expensive in Germany, and 8% more in Ireland, than in the UK.

Overall UK prices were 5.7% higher than the EU average.

Alcoholic beverages were 36% cheaper in France and 43% cheaper in Germany than in the UK. In Ireland prices were 21% higher than in the UK. Finland and Sweden were the only other countries with higher prices than the UK.

Bread and cereals, meat and fish were all more expensive in France and Germany, together with everything but oils and fats in Ireland, than in the UK. Oils and fats were 4% lower in France and Ireland, and 8% lower in Germany than the UK. Meat was over 20% higher, although only 7% in Ireland.

Food prices rose 34% in the UK between January 2007 and May 2015 while rising 20% in Germany and 13% in France. Averaged across the EU, food prices rose 21% over the same time period.

Source: *Eurostat*.

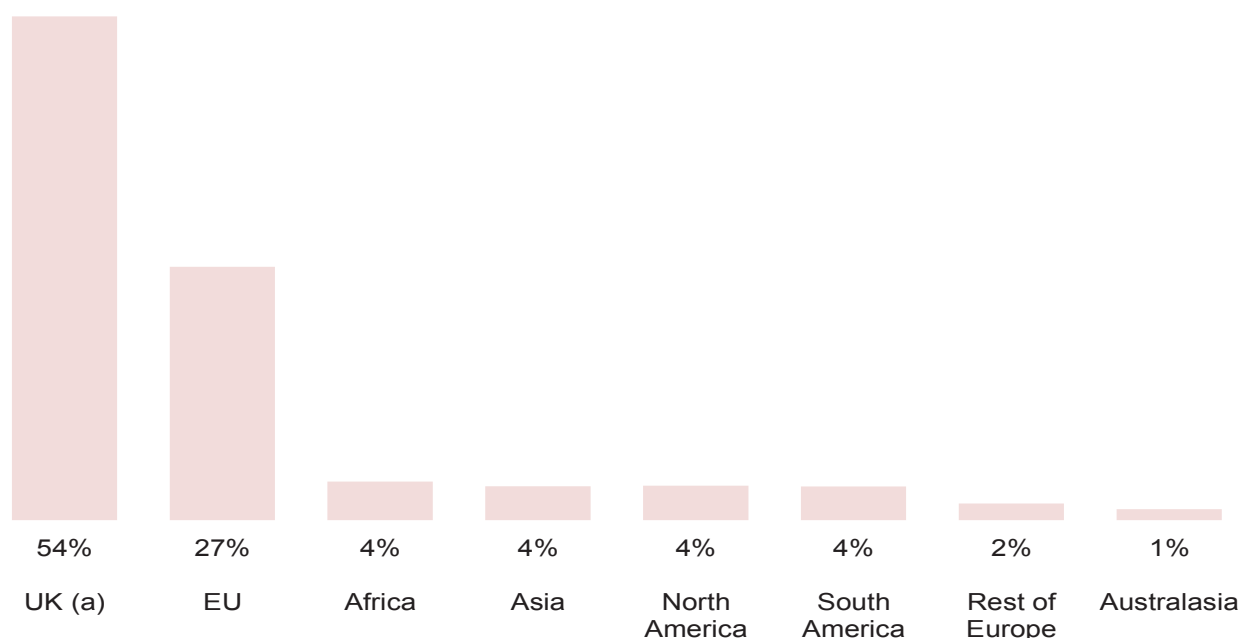


<sup>10</sup> Price level indices are based on Purchasing Power Parities, which compare prices in different countries, after removing the effects of exchange rate differences.

## 3 Global and UK Supply



### 3.1 Origins of food consumed in the UK, 2014<sup>1</sup>



(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 security<sup>2</sup>.

Based on the farm-gate value of unprocessed food twenty two countries accounted for 90% of UK food supply in 2014. The UK supplied over half (54%). The leading foreign suppliers were the Netherlands (5.6%), Spain (5.1%), France (3.1%), Germany (3.1%) and Irish Republic (3.0%).

Three countries accounted for 90% of dairy product and egg supply (UK supplied 86%). Three countries accounted for 90% of meat and meat preparation supply (UK supplied 84%). Twelve countries accounted for 90% of supply of cereals and cereal preparations (including rice). The UK supplied 56%.

Twenty four countries accounted for 90% of fruit and vegetable supply (UK supplied 23%).

Source: Defra.

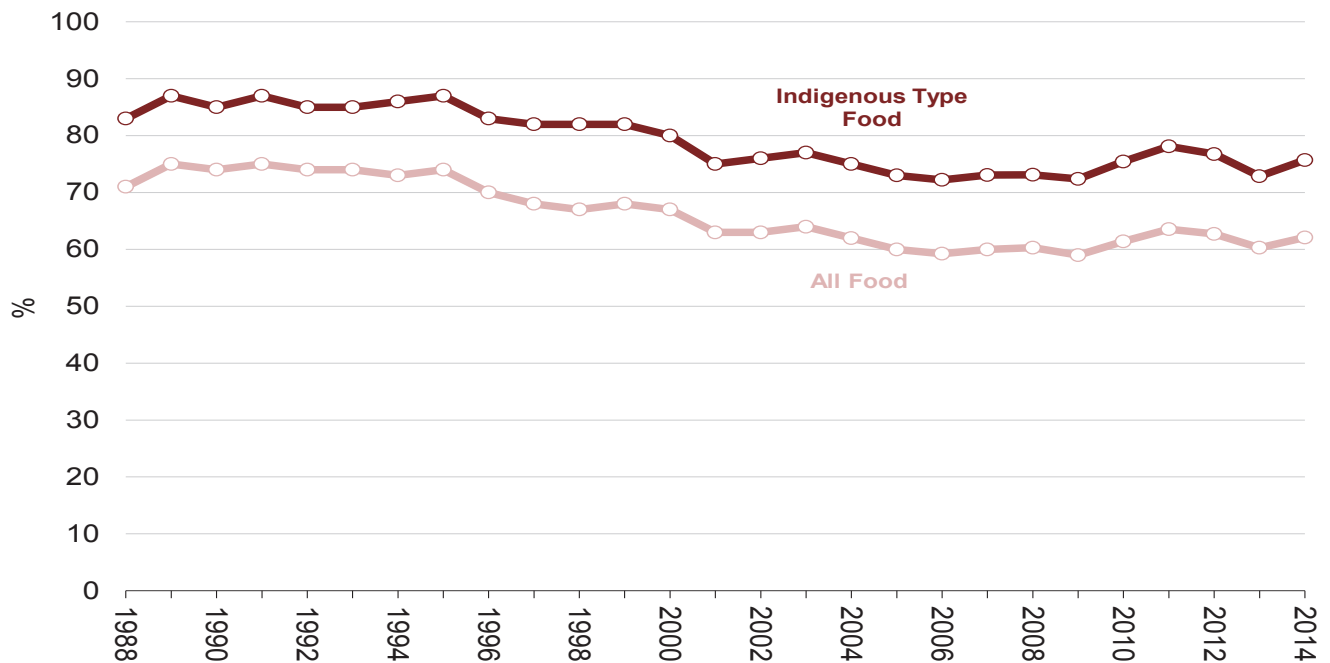


<sup>1</sup> 2014 figures are final.

<sup>2</sup> UK Food Security Assessment, January 2010 (Defra).



## 3.2: UK Food production to supply ratio, 1998-2014



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 2014 was 62% for all food and 76% for indigenous type food. This compares with 60% and 73% respectively in 2013.

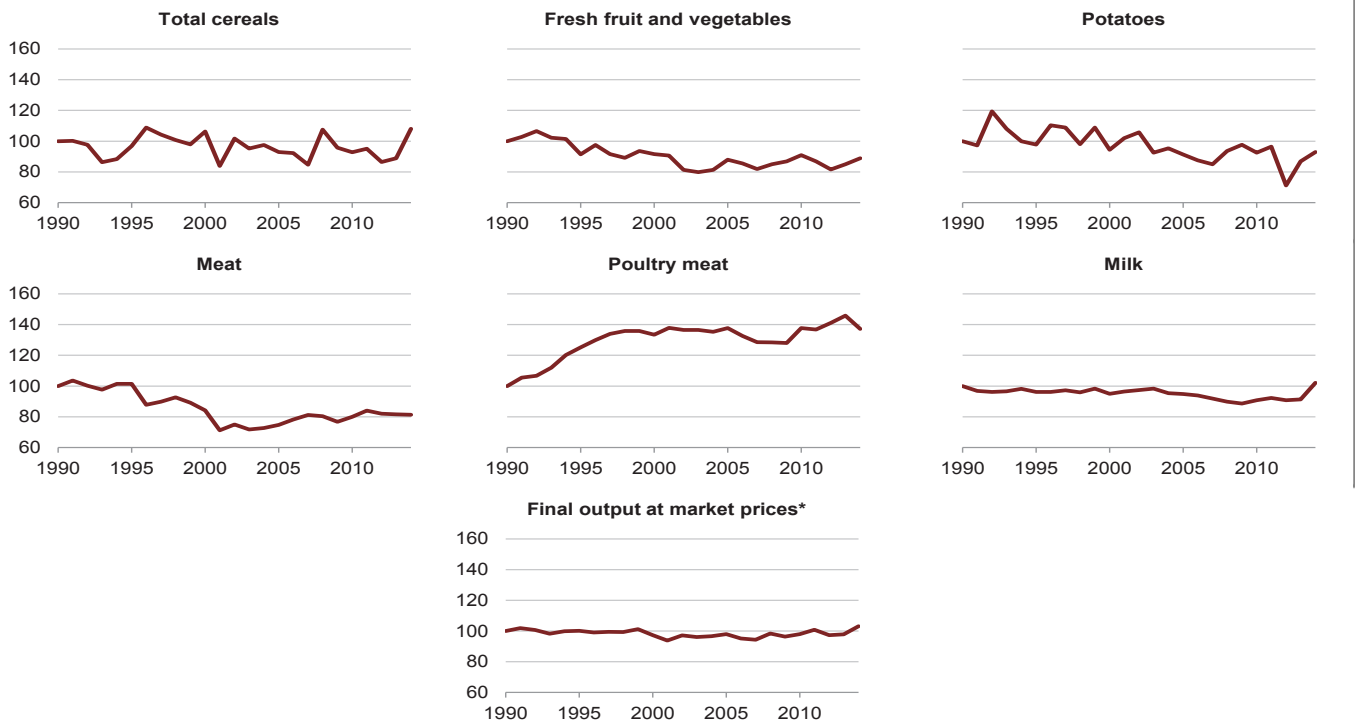
In 2014, the overall value of UK food production remained unchanged.

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%.

Source: Agriculture in the United Kingdom, Defra.



### 3.3: Trends in UK food production



Final output<sup>3</sup> of UK agriculture is a proxy for UK food production. The overall volume of all outputs increased by 6.5% between 2013 and 2014<sup>4</sup>, driven by large increases in the volumes of crops produced in 2014. Longer term trends have shown little variation.

Total UK cereal production has fluctuated, with significant dips in 2001, 2007, 2012 and 2013, linked to adverse weather conditions in those years. 2014 saw an increase in production driven by a 39% rise in production of wheat compared to 2013.

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 2013. This was followed by a slight decrease in 2014 as the growth in the sector seen in recent years steadied.

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.

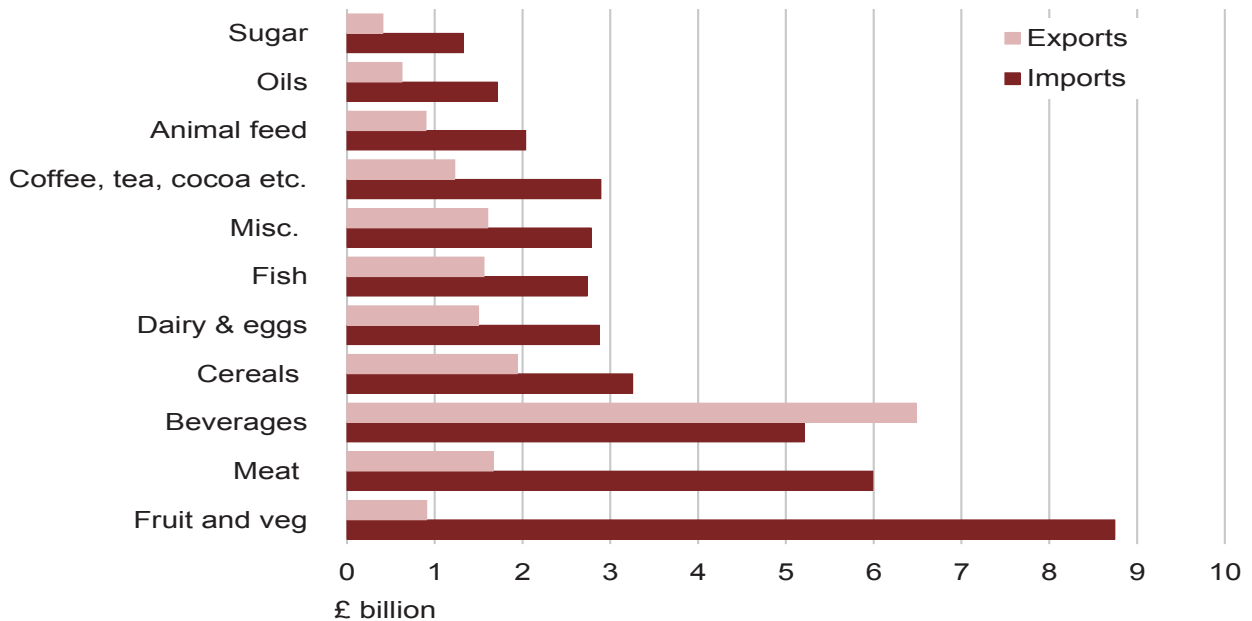
Source: *Agriculture in the United Kingdom*, Defra.



<sup>3</sup> Gross output less transactions within the industry.

<sup>4</sup> 2014 figures are provisional.

### 3.4 UK trade in different food groups, 2014<sup>5</sup>



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 £1.27 bn in 2014, largely due to exports of Scotch Whisky.

Beverages are the largest export category by far with an export value of £6.5 bn in 2014. Exports (at 2014 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 £1.6 bn respectively.

'Fruit and vegetables' has the largest trade deficit. In 2014 imports cost £8.7 bn while exports were worth £0.9 bn, giving a trade gap of £7.8 bn.

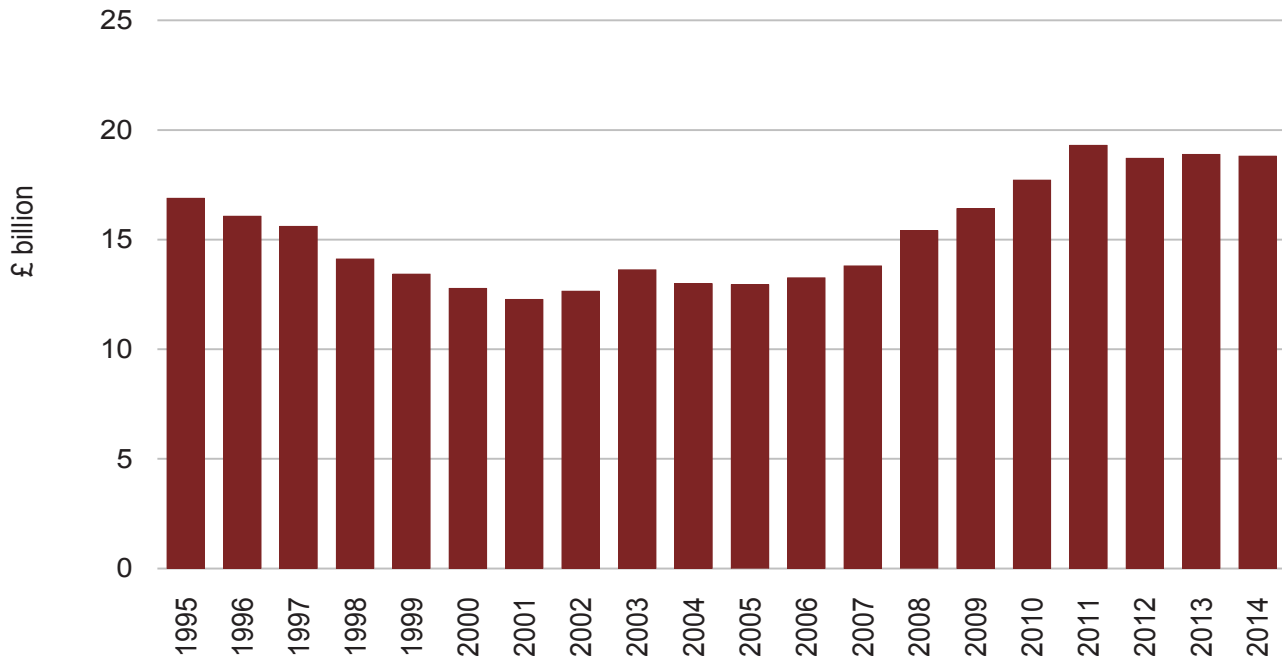
The second largest groups in terms of imports in 2014 were meat and beverages with imports of £6.0 and £5.2 bn respectively.

Source: HM Revenue and Customs.



<sup>5</sup> 2014 figures are final.

### 3.5: Trend in exports of food, feed and drink<sup>6</sup>



The total value of food and drink exports fell slightly in 2014 to £18.8 billion, £5.8 billion more than in 2005 measured in 2014 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.

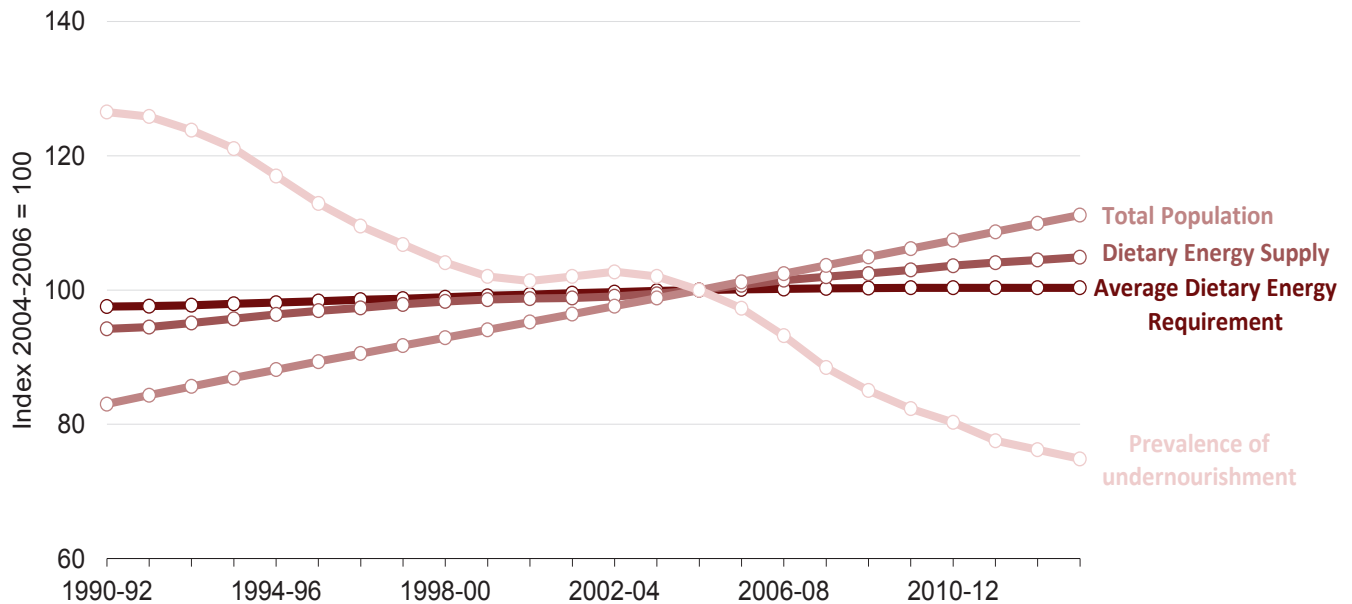
The trade deficit in food, feed and drink widened slightly in 2013 to £21.3 billion. It is £3.7 billion higher than in 2005 measured in 2013 prices.

Source: *HM Revenue and Customs*



<sup>6</sup> 2014 figures are final.

### 3.6: World trends in population, energy requirement, energy supply and prevalence of under-nourishment<sup>7</sup>



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)<sup>8</sup>.

The dietary energy supply, calculated as Kcal/capita/day, has increased 11% since 1990-92.

World population is currently growing 1.2% per year and increased 32% between 1990-92 and 2012-14.

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 40% 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 intake<sup>9</sup>.

Source: *Food Security Indicators* (FAO).

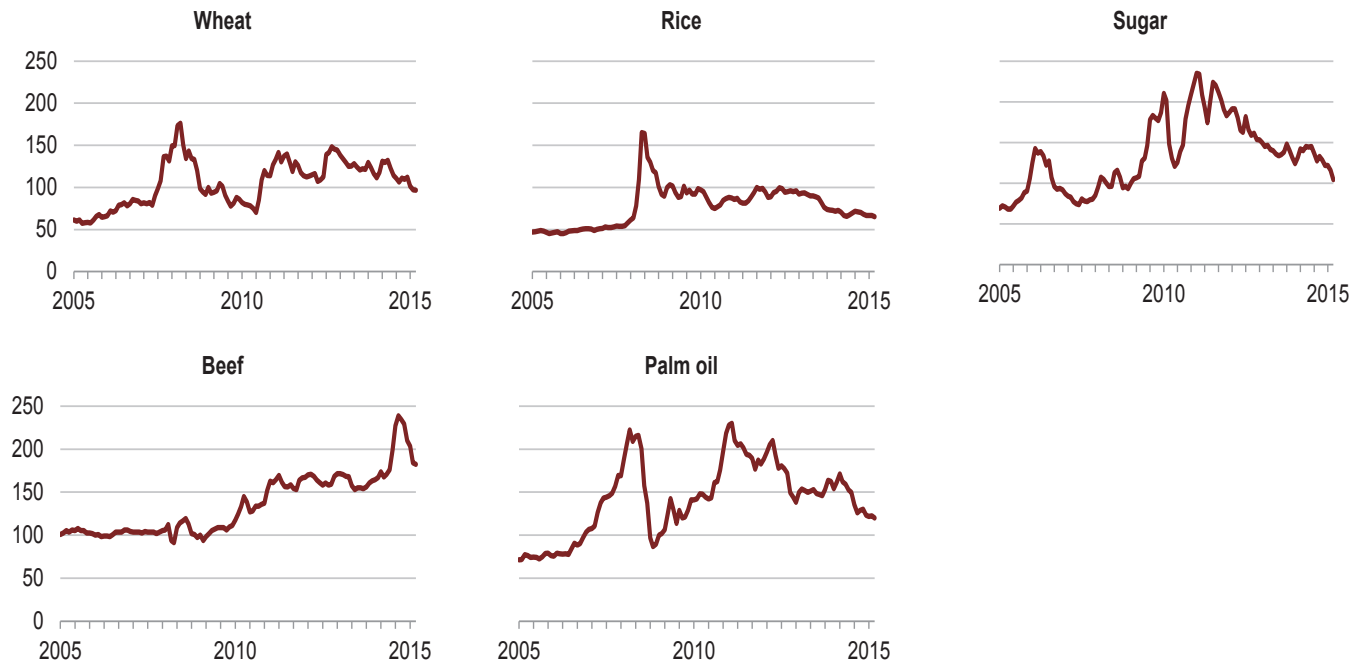


<sup>7</sup> Calculated on three-year average to reduce the impact of errors in recording annual stock variations.

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

<sup>9</sup> Global Monitoring Report 2013, World Bank.

### 3.7: World agricultural commodity prices to March 2015



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 March 2015 being 56% lower than the 2011 peak.

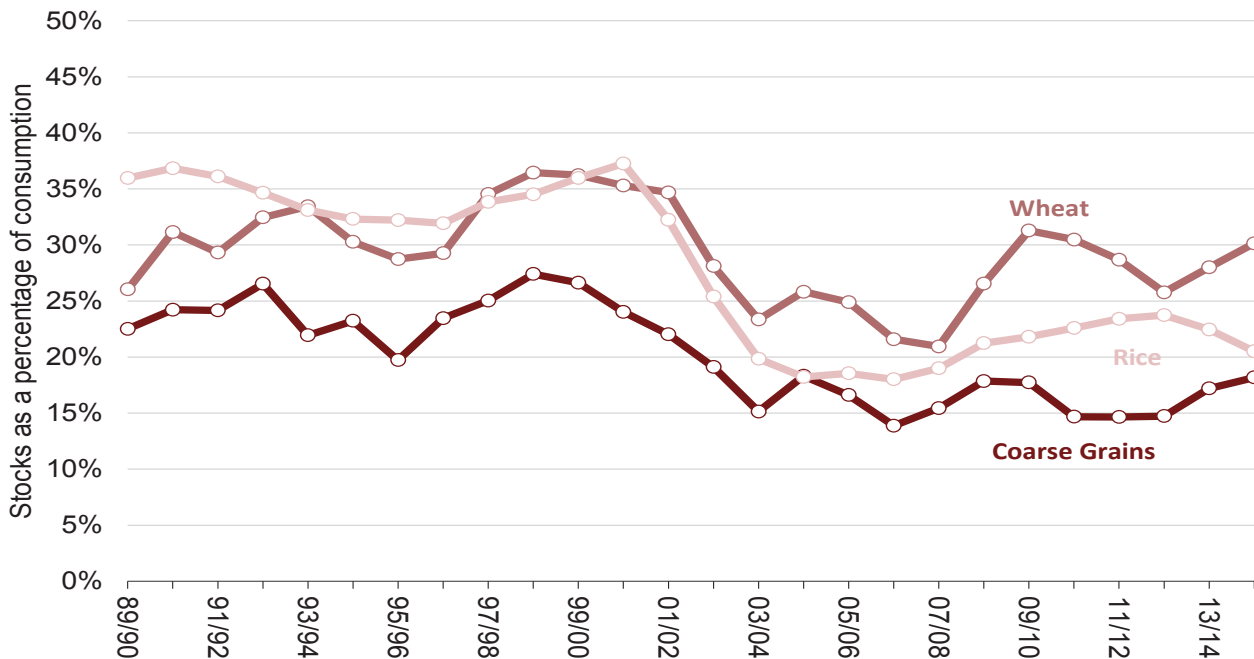
Rice prices peaked in April 2008 having risen threefold over 8 months. A downward trend followed until June 2010 with prices falling 55%. Prices rose steadily between June 2010 and the first half of 2011 since when there has been relative stability but have continued to fall in the year to March 2015.

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 March 2015 are 48% lower than in early 2011.

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



### 3.8: World grains stocks to consumption ratio 2014-2015<sup>10</sup>



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, wheat stocks began to rise in 2013-14<sup>11</sup>. Rice stocks have been on an upward trend since 2004-05.

Consumption (the denominator) is on a gradually rising trend, pushing the indicator onto a downward trend.

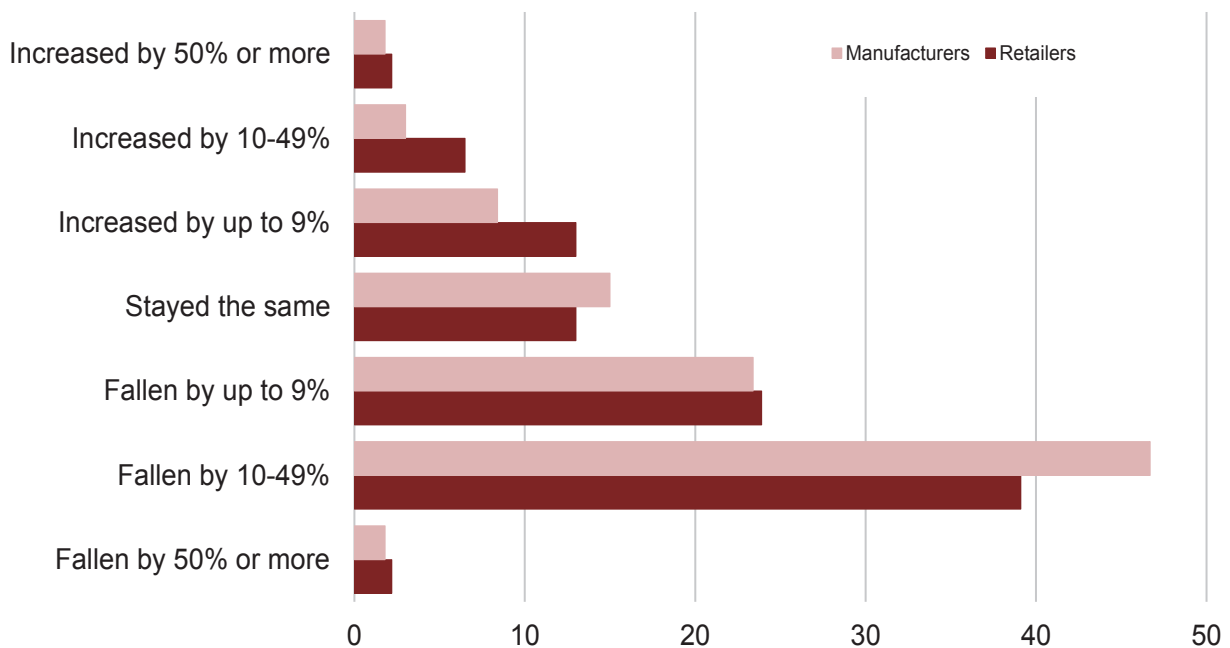
Source: *International Grains Council (IGC), United States Department of Agriculture (USDA)*



<sup>10</sup> Starting this month, (August 2013) Production, Supply and Distribution (PSD) numbers for “European Union” reflect the addition of Croatia to the former EU-27. Croatia data no longer exists in the PSD after 1998/99; therefore, comparisons to data, including World Totals, will differ from those published prior to July 2013.

<sup>11</sup> USDA projections.

### 3.9: Retailer warehouse stock levels 5-year change



The industry has largely reduced warehouse stock levels. 72% of manufacturers and 65% of retailers have made at least some reduction.

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 times<sup>12</sup> 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.

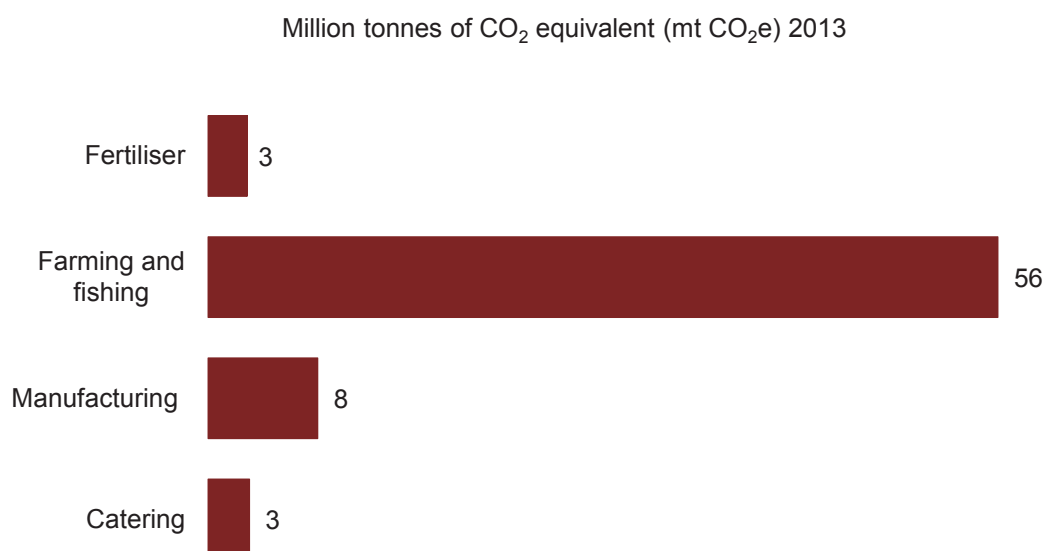
Source: IGD Research, 2013.



<sup>12</sup> The time between an order being placed and delivery.



### 4.1: Greenhouse gas (GHG) emissions from the UK agri-food sector, 2013<sup>1</sup>



Four sectors were responsible for emitting around 70 million tonnes of CO<sub>2</sub> equivalent GHGs (mt CO<sub>2</sub>e) from UK domestic food sector activity in 2013 (excluding emissions from non-fertiliser pre-farm production, land use change, food packaging, retailing, households, food waste and net trade). The largest contributor of the four sectors was farming and fishing, estimated at 56 mt CO<sub>2</sub>e.

Emissions from farming and fishing remained relatively stable between 2012 and 2013. Excluding fishing, emissions from farming, which were estimated at around 55.6 mt CO<sub>2</sub>e in 2013, have maintained a steady long-term decline. Enteric fermentation in ruminating animals and oxidation of nitrogen in fertilisers is the source of most of the farming emissions.

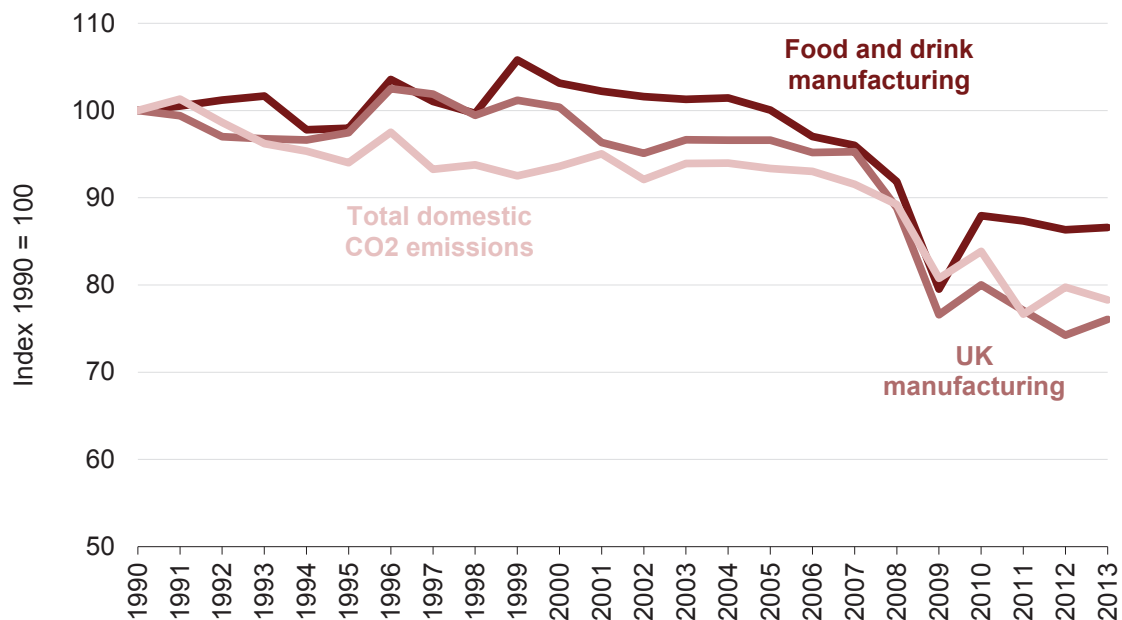
In the other sectors, food and drink manufacturing emissions rose by 1.2% in 2013, while catering emissions also rose by 3.1%.

Source: UK Environmental Accounts, ONS 2015 British Survey of Fertiliser Practice



<sup>1</sup> GHG emissions from food packaging, food waste and land use change are not included. Manufacturing excludes emissions from electricity use and also excludes emissions from road freight transport. Household does not include emissions from heating water for washing up or dishwashers.

## 4.2: Trend in CO<sub>2</sub> emissions from UK food and drink manufacturing, 1990-2013<sup>2</sup>



CO<sub>2</sub> emissions from UK manufacturing, including food and drink manufacturing, have been on a downward trend since 1999, despite the occasional increase, including in 2013.

In all three sectors, there was a similar pattern between 2008 and 2011, with a decrease in CO<sub>2</sub> emissions in 2008 and 2009, an increase in 2010 and another decrease in 2011.

In 2013 UK manufacturing CO<sub>2</sub> emissions have increased by 2% while total domestic emissions have decreased by 2%. Food and drink manufacturing has remained unchanged since 2012.

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 CO<sub>2</sub> emissions.

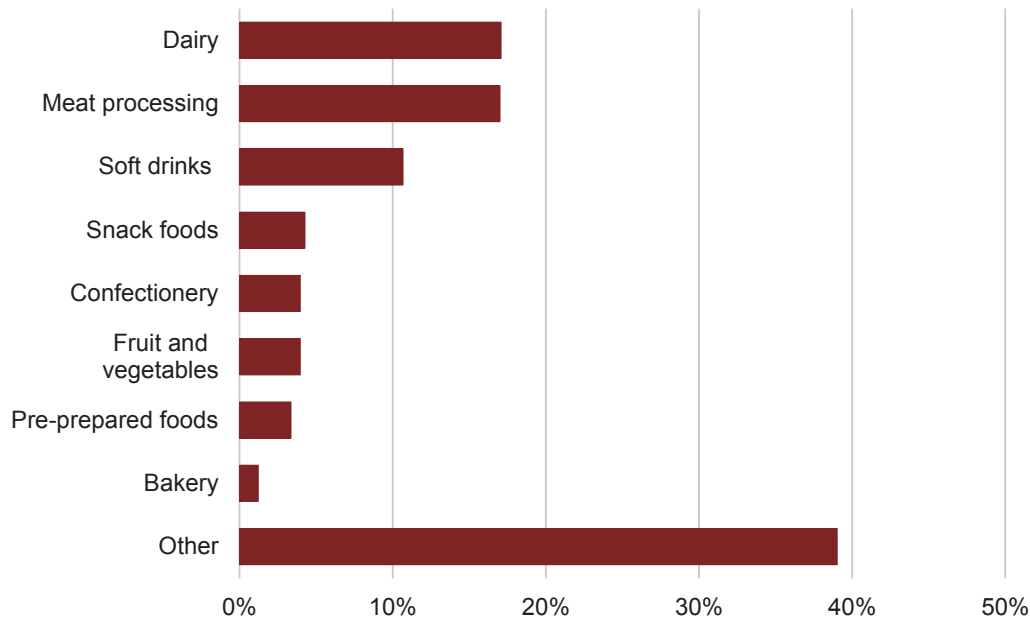
An increase in the volume of outputs along with a prolonged period of exceptionally cold weather produced an increase in emissions during 2010.

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



<sup>2</sup> Manufacturing figures include the share of CO<sub>2</sub> emissions relating to electricity production using a constant emission factor. Total domestic CO<sub>2</sub> emissions include net emissions/removals from land use and land use change but with no allowance for EU Emission Trading Scheme purchases.

### 4.3: Food and drink sub-sectors represented within the Federation House Commitment (FHC)<sup>3</sup>



Federation House Commitment<sup>4</sup> 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 2014, the FHC has 70 signatories across 284 sites. Together, these signatories represent a quarter of UK food and drink manufacturing.

Between 2007 and 2013 signatories collectively made a 16% reduction in their water use (excluding that in the product). This reduction is equivalent to 6.1 million m<sup>3</sup> or 2,430 Olympic-size swimming pools, and is three-quarters of the way towards meeting the 20% reduction target by 2020.

Source: *Federation House Commitment (FHC), Progress report 2014 (WRAP)*.

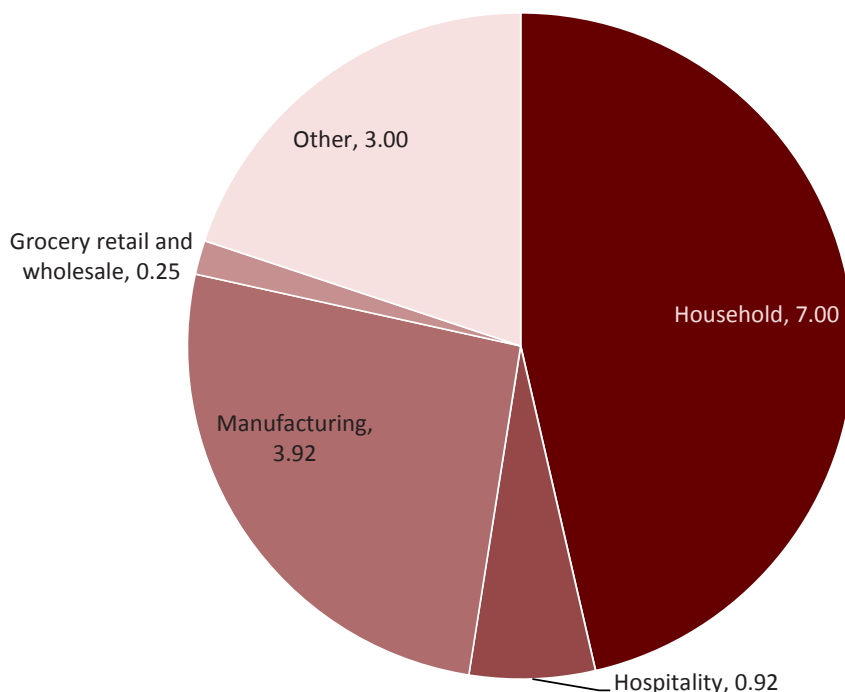


<sup>3</sup> Meat processing includes red meat and poultry. 'Other' includes fish processing, alcoholic beverages, pet food and animal feed, milling, desserts, sauces and condiments.

<sup>4</sup> The 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](http://www.fhc2020.co.uk)



### 5.1: UK food and drink waste through the food chain (million tonnes) 2013



15<sup>1</sup> million tonnes of food and drink was wasted in the food chain in 2013 in the UK. Around 41 mt of food are purchased in the UK annually (mainly for use in the home), meaning that the quantity wasted in the supply chain is equivalent to about one third of the food purchased.

The highest proportion of food and drink waste in the food chain was wasted in households, with 7 million tonnes being thrown away in the UK in 2012, or just under half of the 15 mt.

Of the 7 mt of household food and drink waste, 4.2 mt was avoidable, 1.2 mt was possibly avoidable and 1.6 mt was unavoidable.

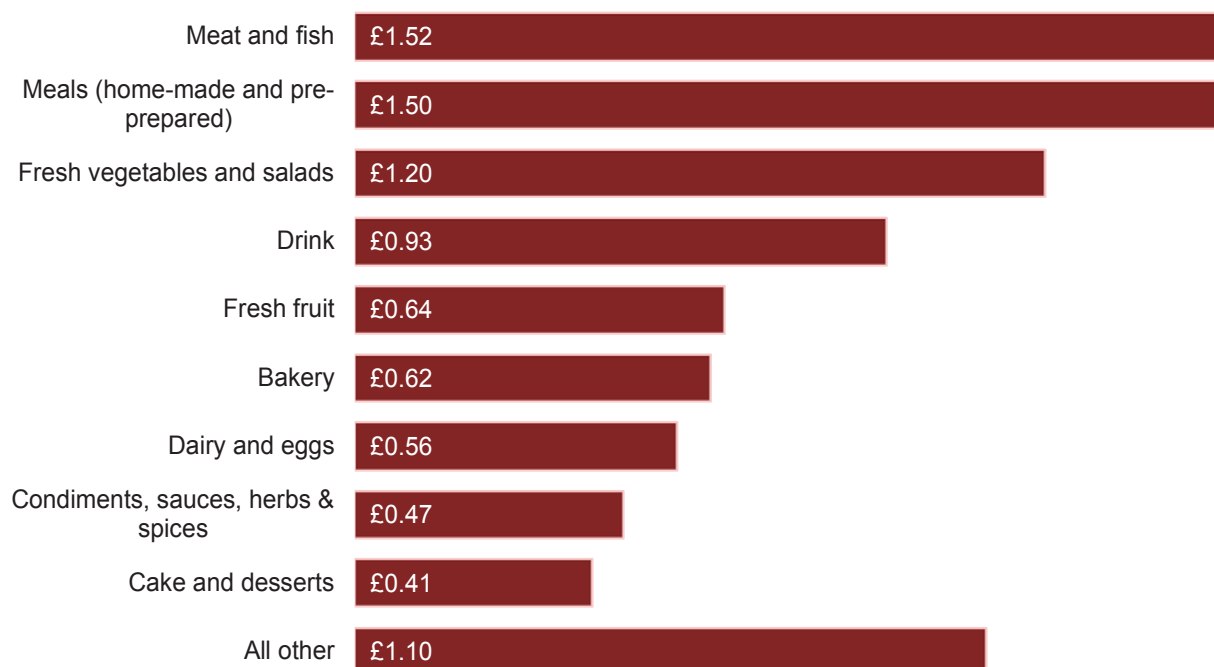
Manufacturing contributed the second largest proportion of waste, at 26% (3.9 mt), followed by hospitality with 6% (0.92 mt). Grocery retail and wholesale together only wasted 2.9% (0.4 mt).

Source: *Handy Facts and Figures on Waste in the UK 2015*, WRAP.



<sup>1</sup> This includes estimates for other food thrown away by consumers out of the home and the pre-factory gate stages of the food supply chain. Existing estimates of agricultural food waste are indicative, and based on a 2004 Environment Agency synthesis of evidence available at that time <http://cdn.environment-agency.gov.uk/geho1204bikm-e-e.pdf>.

## 5.2: UK cost of avoidable food and drink waste per household per week, by food group, 2012



The retail price of avoidable food and drink<sup>2</sup> waste from UK homes was around £9 per household per week in 2012, or 14% of the £66 spent on average each week on household food<sup>3</sup>. The cost to the UK of avoidable food and drink waste in 2012 was £12.5 billion.

Meat and fish contributed the highest cost to avoidable food and drink waste at £1.52 (16.9%) per week, followed by homemade and pre-prepared meals at £1.50 (16.8%). Cakes and desserts contributed the least (not including other) at £0.41 (4.6%), followed by condiments at £0.47 (5.2%).

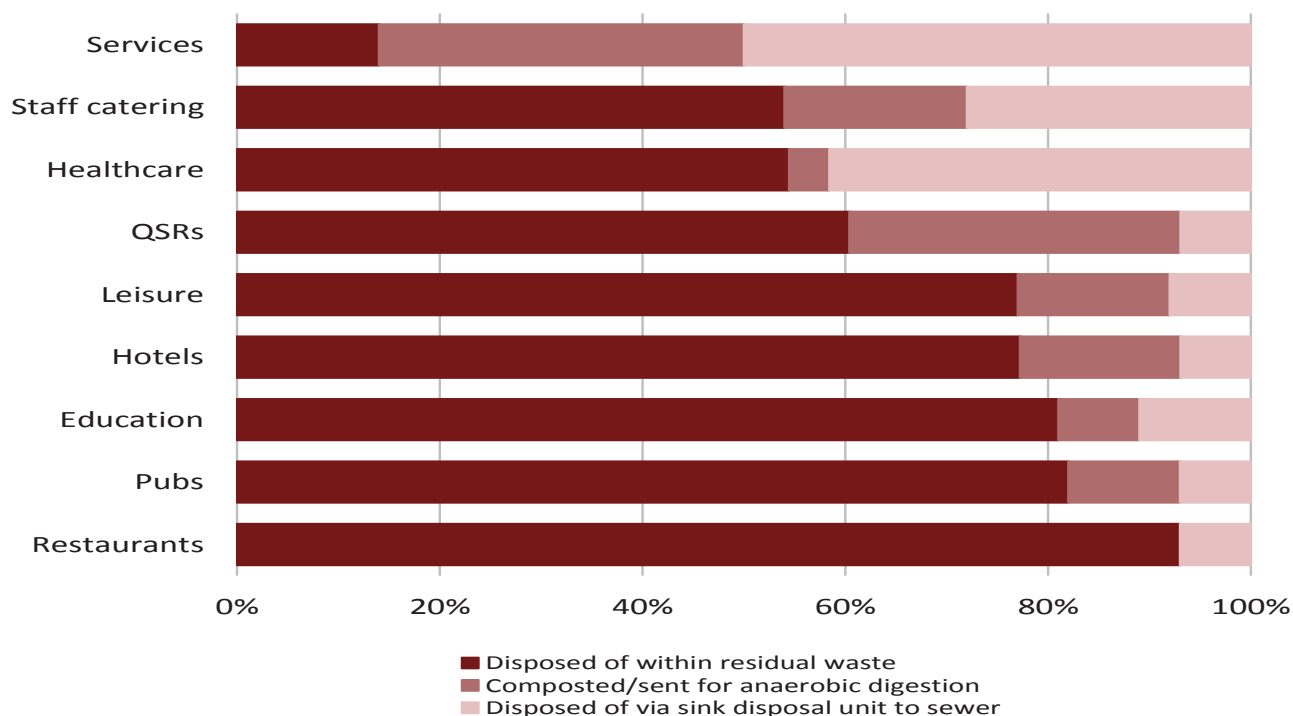
Due to their high cost per kilogramme, meat and fish only contributed 7% in weight to the total avoidable food waste (17% in cost) whilst fresh vegetables and salad make up 19% in weight (13% in cost).

Source: WRAP Household Food and Drink in the United Kingdom 2012.



<sup>2</sup> Food and drink only includes those products brought back to the house, not food eaten out.  
<sup>3</sup> Household food expenditure was sourced from Defra's Family Food 2011

### 5.3: Management of Food Waste in the Hospitality and Food Sector (HaFS), by subsector, UK 2013<sup>4</sup>



Services and quick service restaurants (QSRs) composted the most food waste at 36% and 33% respectively, while restaurants didn't compost any. Education and healthcare composted the next least at 8% and 4% respectively.

Restaurants disposed of the largest proportion of food waste (93%) into the residual waste stream while services disposed of by far the least at 14%.

Services disposed of the majority of food waste via SDU (50%) followed by healthcare (42%). In 2013, 28% of food (by weight) purchased in services was wasted while only 3% was wasted from staff catering.

The cost in 2011 of food wasted in the HaFS was over £2.5 billion.

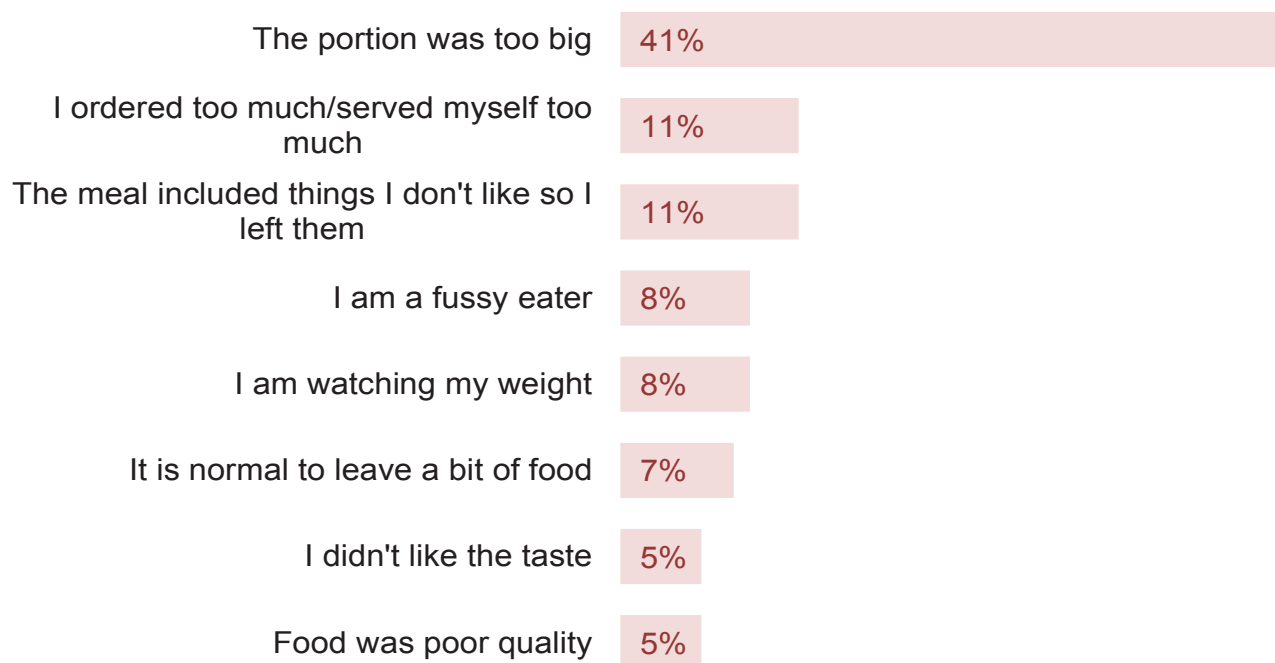
Source: *Overview of Waste in the Hospitality and Food Service Sector 2013*, WRAP.



<sup>4</sup> HaFS waste estimates have been compiled from waste reviews and surveys carried out in 2011 and 2013, and datasets collected between 2009 and 2012. Outlets from all HaFS subsectors were represented in the dataset, which included samples from 480 premises across England, Scotland and Wales.

All estimates presented in this summary report are subject to uncertainties. These relate to sampling error (i.e. the problem of trying to represent a large and varied sector based on a limited number of samples), uncertainties in extrapolating annual waste arisings from outlets based on 'snapshot' samples (typically a week's worth of waste), the extent to which samples successfully captured all HaFS waste arisings, and variation in methodology between different studies.

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



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%).

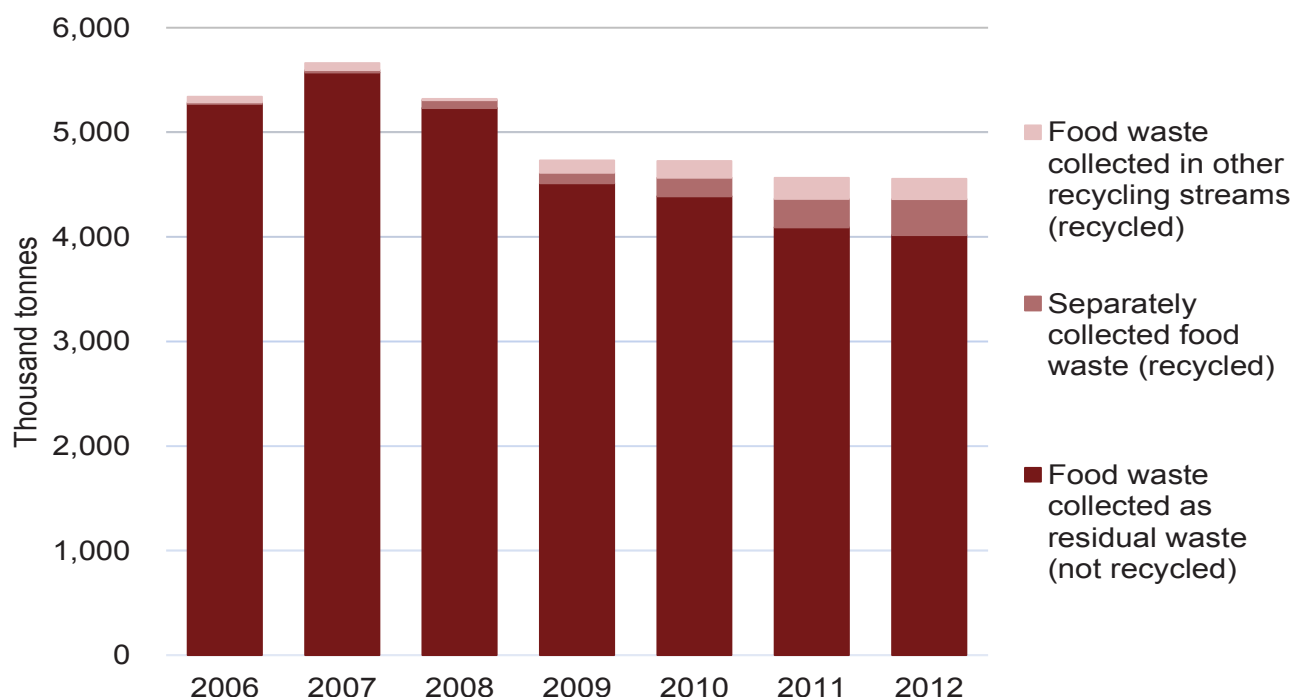
A bigger proportion of meal leavers tend to leave food when eating out in either pubs, hotels or restaurants than other venues. The tendency to leave food at these venues could be that these diners attach more value to enjoying a meal out in a social setting than diners who are simply out to 're-fuel'.

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.

Source: *Understanding Out of Home Consumer Food Waste 2013*, WRAP.



## 5.5: Collection of food waste by local authorities in the UK 2006-2012<sup>5</sup>



In 2012 12% (537,000 tonnes) of food waste<sup>6</sup> collected by local authorities was recycled, compared with 1% (68,000 tonnes) in 2006. In 2012, 8% was collected separately while 4% was mixed with green garden waste.

Since 2007 there has been a steady decrease in the total amount of food waste generated, and since 2008, an increase in the amount of food waste collected for recycling.

In 2012 local authorities were collecting over 5 times as much food waste for recycling as they were in 2007, an increase from 88,000 to 537,000 tonnes.

Separately collected food waste has increased from under 15,000 tonnes in 2006 to nearly 350,000 tonnes in 2012, over 20 times the tonnage in 2006.

Source: *Synthesis of Food Waste Compositional Data, WRAP 2012.*

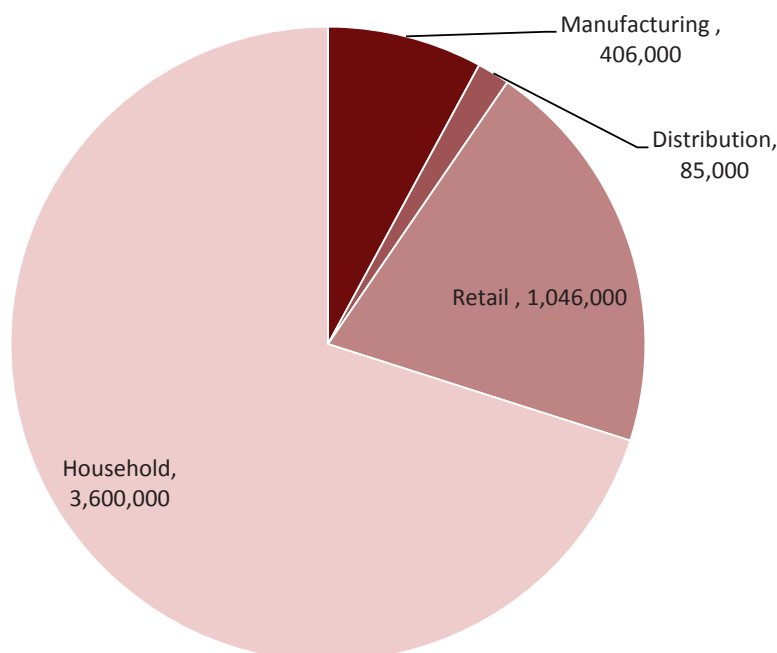


<sup>5</sup>This data is estimated by WRAP. National data on separately collected food waste was only collected from 2010. Before then estimates have been formed by the types of collections used. For more details see *Synthesis of Food Waste Compositional Data, WRAP 2012.*

<sup>6</sup>This data refers only to food waste collected by local authorities, which includes food waste from households.



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



Packaging protects products in transit and helps maintain shelf life for perishable foods. An estimated 3.6 million tonnes of grocery 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 CO<sub>2</sub> equivalent (mtCO<sub>2</sub>e), 6.1 mtCO<sub>2</sub>e for household purchases.

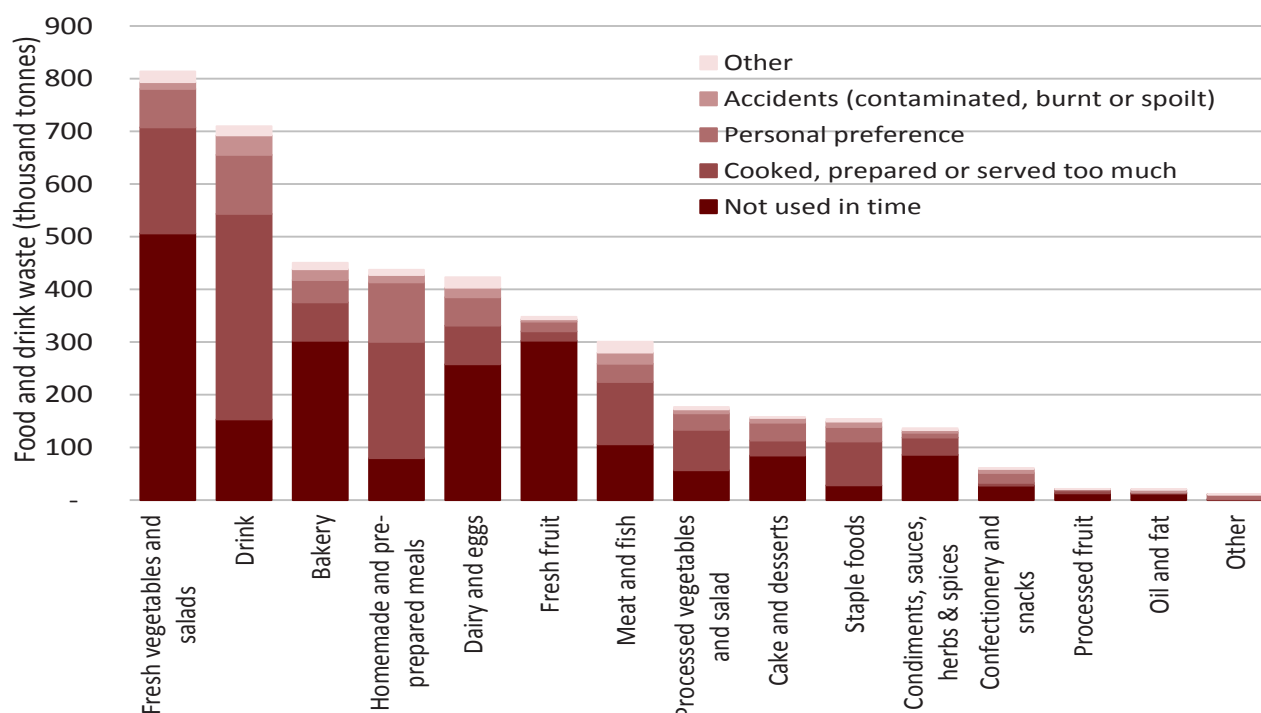
The Courtauld Commitment is a responsibility deal between the UK grocery sector and WRAP, delivered in partnership with local authorities. Between 2010 and 2012 Phase 2 led to 1.7 million tonnes of food, drink and packaging waste being prevented, saving £3.1 billion. This represents a reduction of 4.8 million tonnes of CO<sub>2</sub>eq. Phase 3, to run from 2013 and 2015, aims to lead to a reduction of 1.1 million tonnes of waste, a saving of £1.6 billion and a CO<sub>2</sub>(e) reduction of 2.9 million tonnes.

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



<sup>7</sup> Including packaging from non-food and drink products sold in grocery shops.

## 5.7: UK avoidable household food and drink waste by food group and reason for disposal 2012



4.2 million tonnes of avoidable food waste<sup>8</sup> was disposed of in 2012 by UK households, equivalent to 12% by weight of that brought into the home. 48% was not used in time, 32% was due to too much being cooked or served and 14% down to personal preference.

Of the 4.2 mt of avoidable food waste, 19% was fresh vegetables and salad and 17% was drink. 2 mt of food wasn't used in time. 25% was fresh vegetables and salad and fresh fruit and bakery each made up 15%.

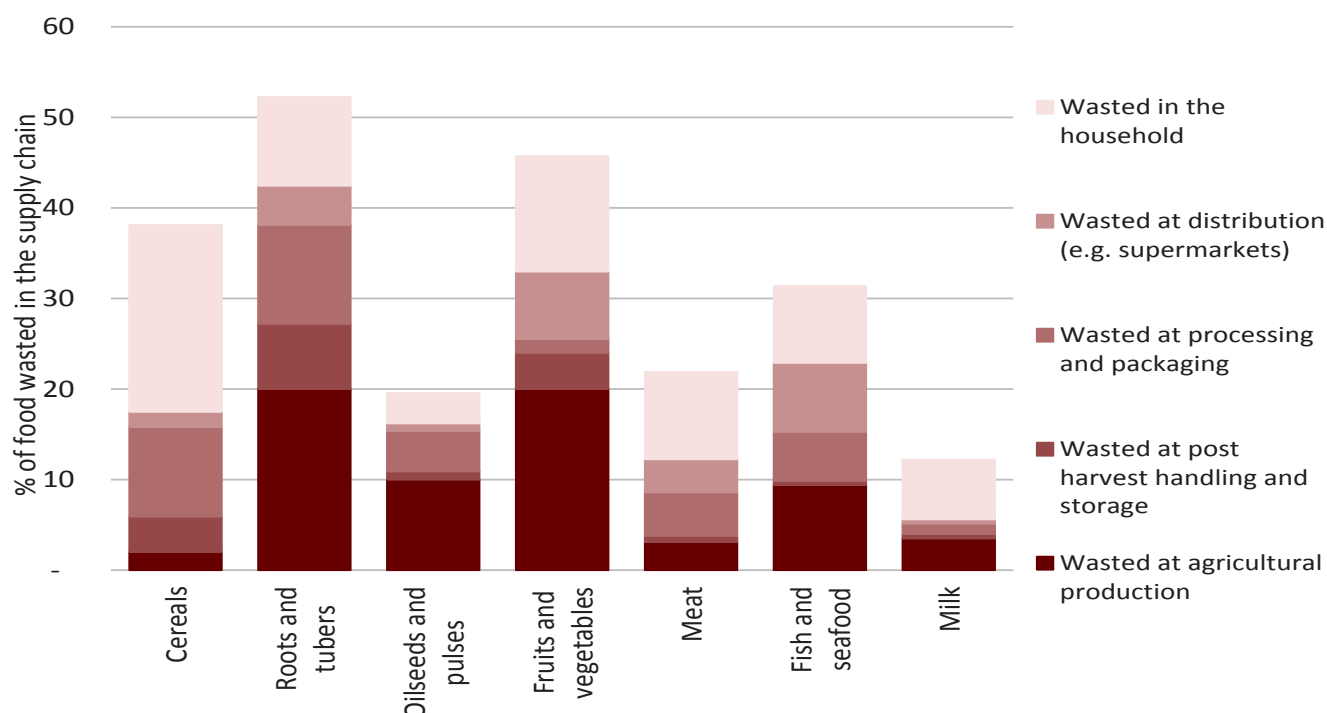
1.3 mt of food was wasted because too much food was cooked or served. Nearly a third was drink, homemade and pre-prepared meals was 17% and fresh vegetables and salad was 15%. Over 0.3 mt of fresh fruit was wasted, 87% of which was not used in time. Over half of drinks, homemade and pre-prepared meals and staple food were wasted due to too much being cooked or served.

Source: *Household Food and Drink Waste in the United Kingdom, WRAP 2012.*



<sup>8</sup> Food waste refers to food and drink waste brought into the home, not eaten out.

## 5.8: Food wasted at each stage of the supply chain<sup>9</sup> in Europe and Russia, 2010



Roots and tubers and fruit and vegetables had the most wasted throughout the supply chain with 52% and 46% respectively. Both also had by far the highest waste at agricultural production at 20%. Only 12% of milk products was wasted in total.

Cereals contributed the most to food wasted in the household, with 21% not being consumed, while fruit and vegetables contributed the next most at 13%. Oilseeds and pulses only contributed 3%.

The three stages between agricultural production and the household were generally the least wasteful stages, with no food group wasting more than 11% at each stage.

Source: *Global Food Losses and Food Waste, 2011*

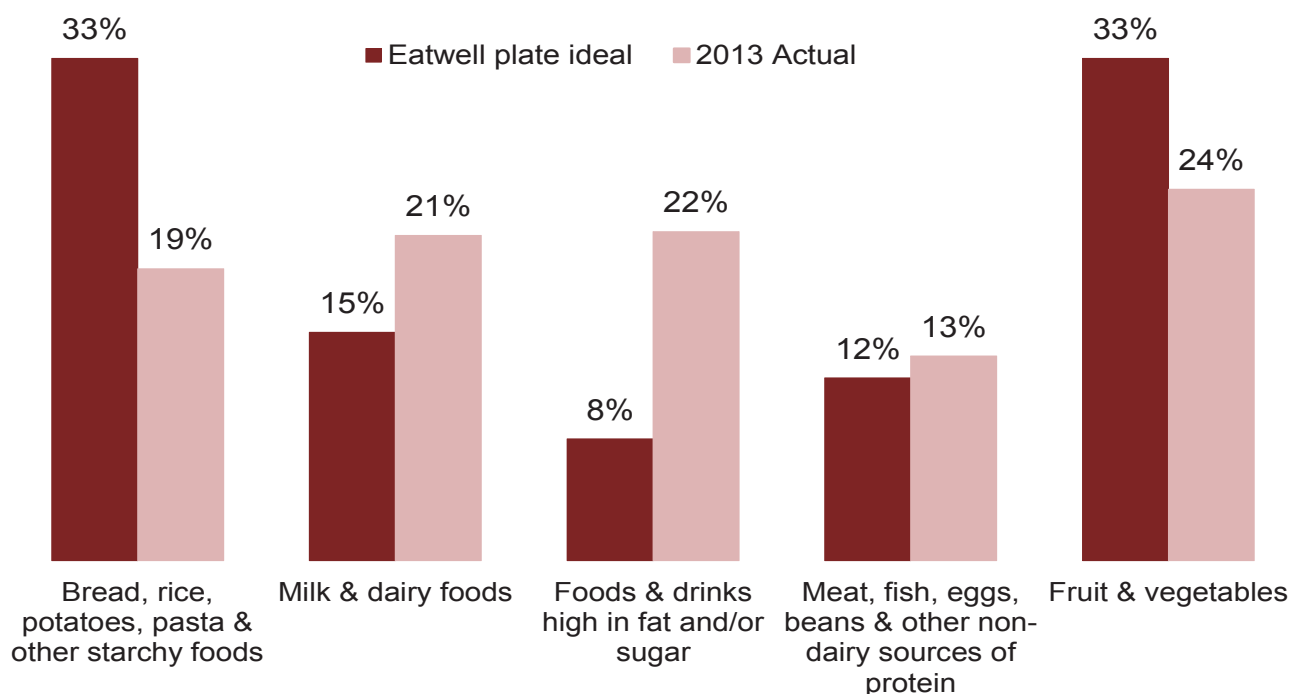


<sup>9</sup> It is assumed that product that hasn't been wasted has been consumed.

## 6 Dietary Health



### 6.1: Household purchases compared to the eatwell plate



Food and drink purchase for household supplies were allocated into the five eatwell plate groups<sup>1</sup>. This shows that in 2013 household purchases included:

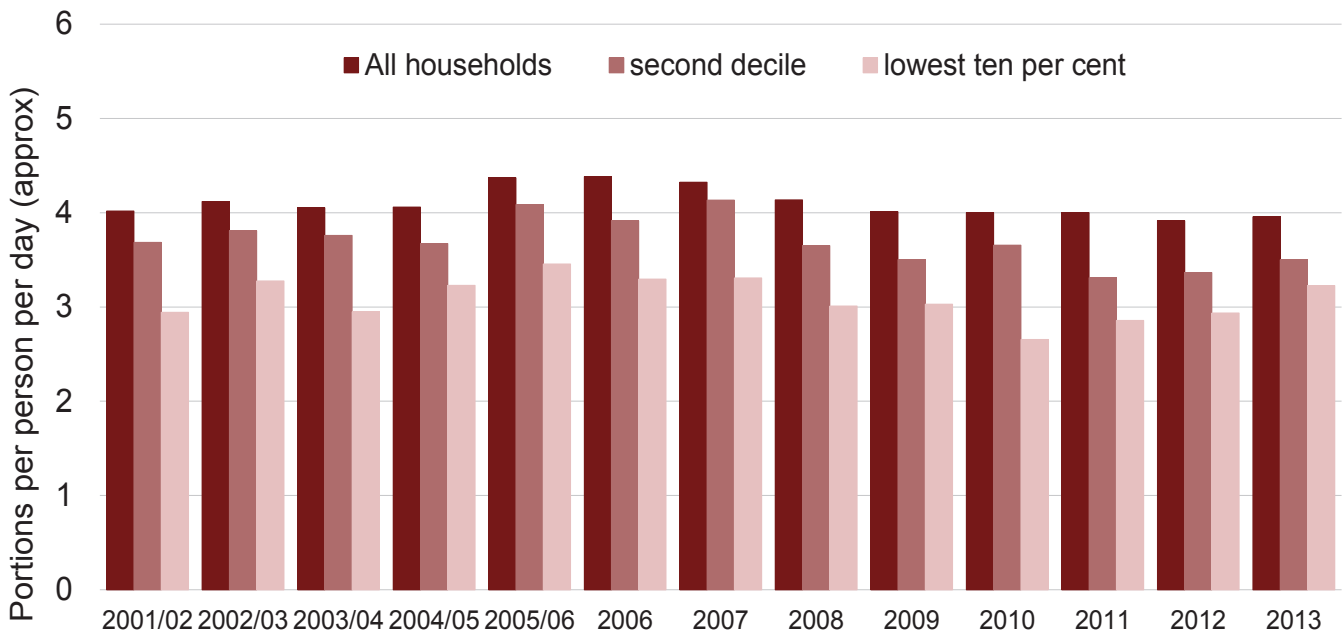
- too much 'food and drink high in fat and/or sugar'; nearly three times the eatwell percentage,
- more than the suggested proportion of 'milk and dairy foods'; 6 percentage points higher than the eatwell percentage.
- a little too much 'meat, fish, eggs, beans and other non-dairy sources of protein',
- too little 'bread, rice, potatoes, pasta and other starchy foods'; 14 percentage points less than the eatwell percentage,
- too little 'fruit and vegetables'; around 9 percentage points less than the eatwell percentage.

Source: *Family Food 2013, Defra, December 2014.*



<sup>1</sup> 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'.

## 6.2: UK trend in purchases of fruit and vegetables (excluding potatoes) to 2013



UK household purchases of fruit and vegetables were 1.1% lower in 2013 than in 2012, a reduction of 9.7% since their peak in 2006.

Purchases of 5 A DAY<sup>2</sup> across all households increased to 4.0 portions after a reduction in 2012 to an average of 3.9 portions.

The lowest income households<sup>3</sup> purchase the least fruit and vegetables at an average of 3.2 portions per person of 5 A DAY in 2013, although an increase on 2012 at an average of 2.9 portions per person of 5 A DAY and the highest portions since 2007.

Households in the second decile had seen the greatest reduction in purchases of fruit and vegetables between 2007 and 2011 at 20%, but showed a small increase (1.7%) in 2012 and (4.0%) in 2013.

Defra estimates that 22% of edible fruit and vegetables are wasted<sup>4</sup>.

Source: *Family Food 2013, Defra, December 2014.*

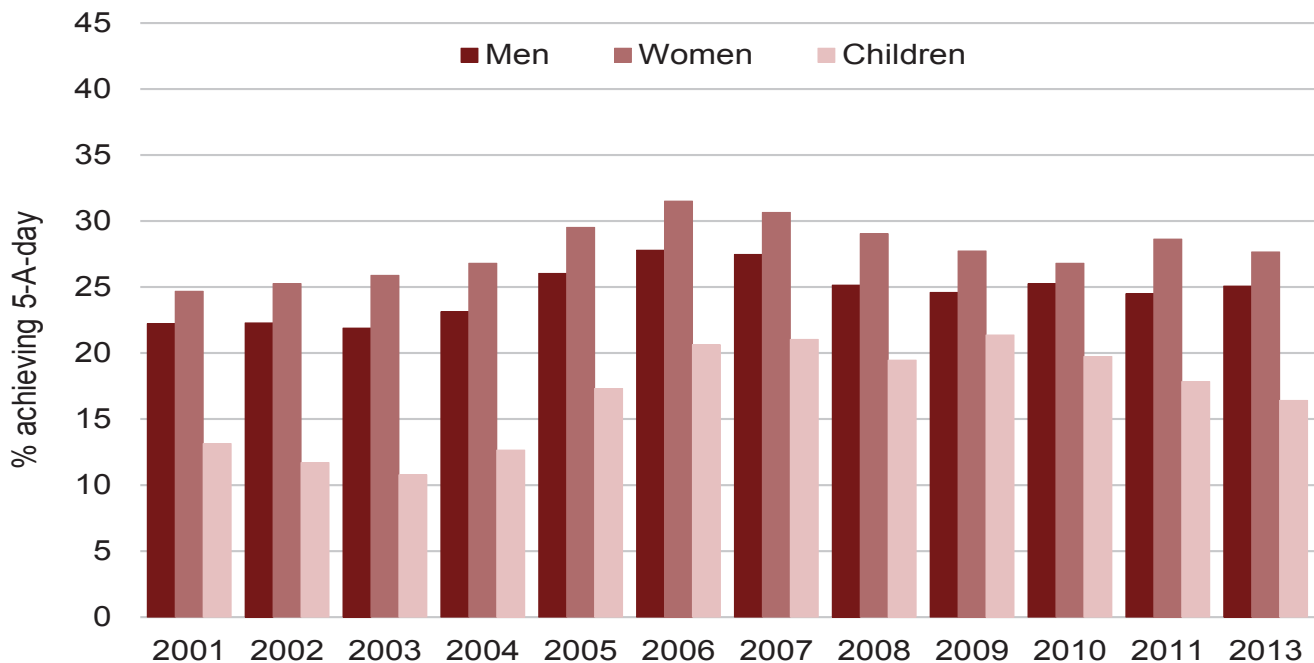


<sup>2</sup> 5 A DAY calculated as all purchases of fresh and processed fruit and vegetables including fruit juice divided by the adult portion size of 80 grams.

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

<sup>4</sup> Household Food and Drink Waste linked to Food and Drink Purchases, Defra July 2010.

## 6.3 Trend in the consumption of fruit and vegetables in men, women and children in England to 2013<sup>5</sup>



In 2013 25% of men, 28% of women and 16% of children (aged 5 to 15 years) consumed the recommended 5 A DAY.

In 2013 16% of children achieved 5 A DAY, having been 18% in 2011, 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 2013 6.8% of adults and 6.7% of children included no fruit or vegetables in their diet. Those aged 65 to 74 eat the most fruit and vegetables.

Between 2011 and 2013 fruit and vegetable consumption by those aged 55 to 64 decreased to an average of 3.5 portions per day for men and 3.8 portions per day for women.

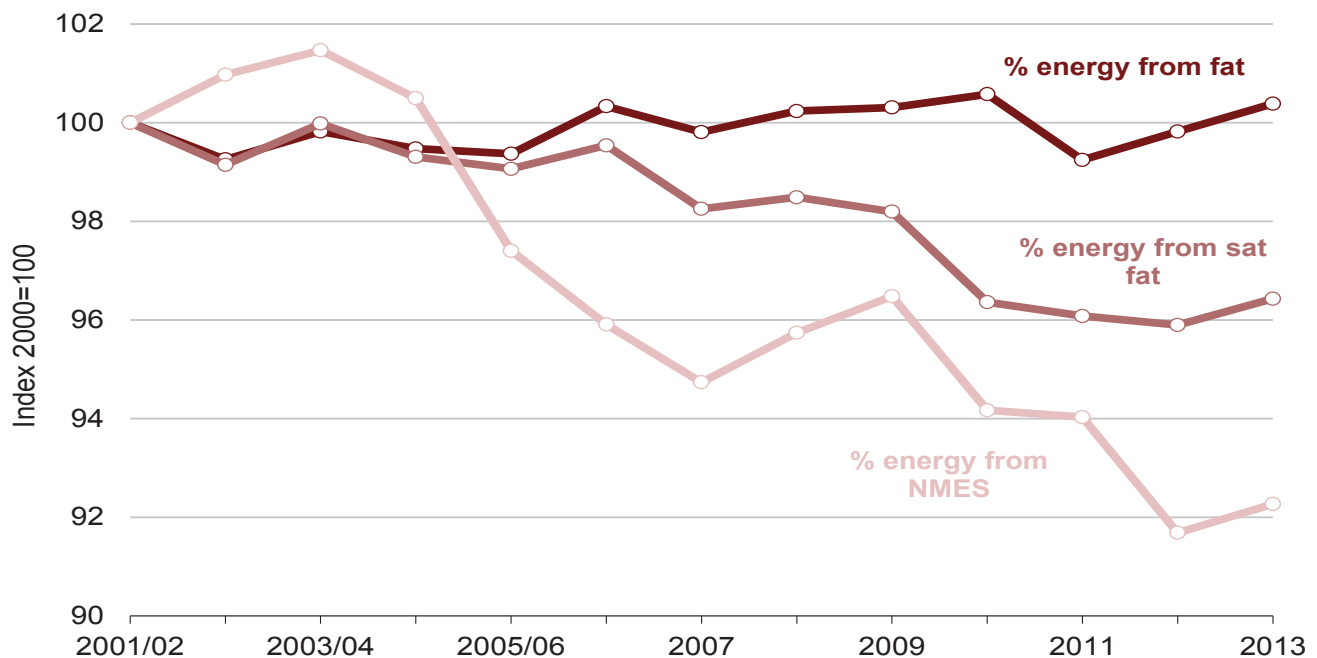
Source: *Health Survey for England, 2013, December 2014 (NHS Information Centre)*<sup>6</sup>



<sup>5</sup> No data is available for 2012

<sup>6</sup> Data from the Health Survey for England is weighted for non-response from 2003 onwards. Consumption is based on a 24 hour period.

## 6.4 UK trends in intakes of fat, saturated fatty acids and non- milk extrinsic sugars<sup>7</sup> to 2013



Sodium intake continued on a downward trend to 2.67 g/person/day in 2013. This is 18% lower than in 2001-02, but above the SACN<sup>8</sup> recommendation of 2.40g of sodium including table salt.

The percentage of food energy from NMES at 13.6% and from saturated fatty acids at 14.3% have both shown upward trends in 2013, although the increases are small. Neither should exceed 11% of total energy intake.

Total fat should contribute no more than 35%<sup>9</sup> of food energy intake (excluding alcohol). Estimates based on food purchases in 2013 from the Family Food survey exceed this at 38.5%, virtually unchanged since 2001-02

Source: *Family Food 2013*, Defra, December 2014.

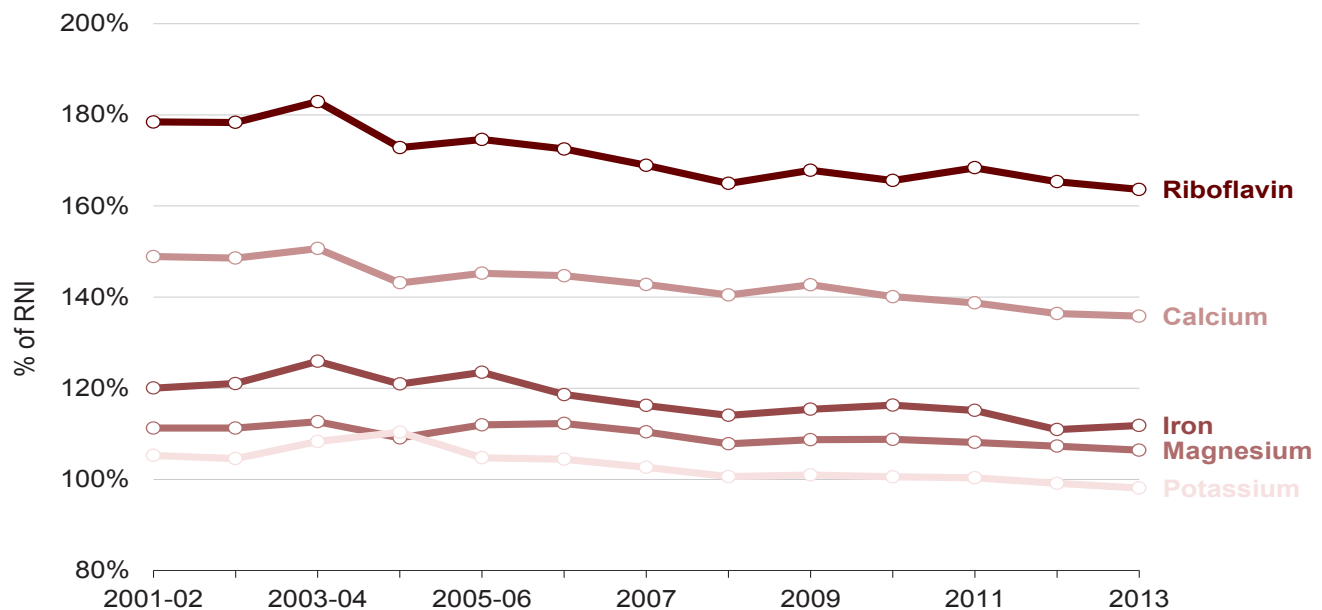


<sup>7</sup> NMES - free sugar not bound in foods e.g table, sugar, honey and sugars in fruit juices, but excluding milk sugar.

<sup>8</sup> Scientific Advisory Committee for Nutrition.

<sup>9</sup> For recommended intakes see Dietary Reference Values for Food Energy and Nutrients in the United Kingdom, 1991 (Department of Health).

## 6.5: UK average micronutrient intakes, 2001-02 to 2013<sup>10</sup>



Based on food and drink purchases average micronutrient intakes except sodium<sup>11</sup> and potassium reached at least 100% of their reference nutrient intake value, where one is set, in 2013.

Intake of vitamin B12 has been consistently high since 2001-02 and remains at around four times the recommended level.

Over the four years 2010 to 2013, intakes of most vitamins and minerals showed downward trends, notably Vitamin B6 and folate, with decreases of 16% and 7.7% respectively. Over the same period, thiamin and vitamin C showed upward trends<sup>12</sup>.

Source: *Family Food 2013*, Defra, December 2014.



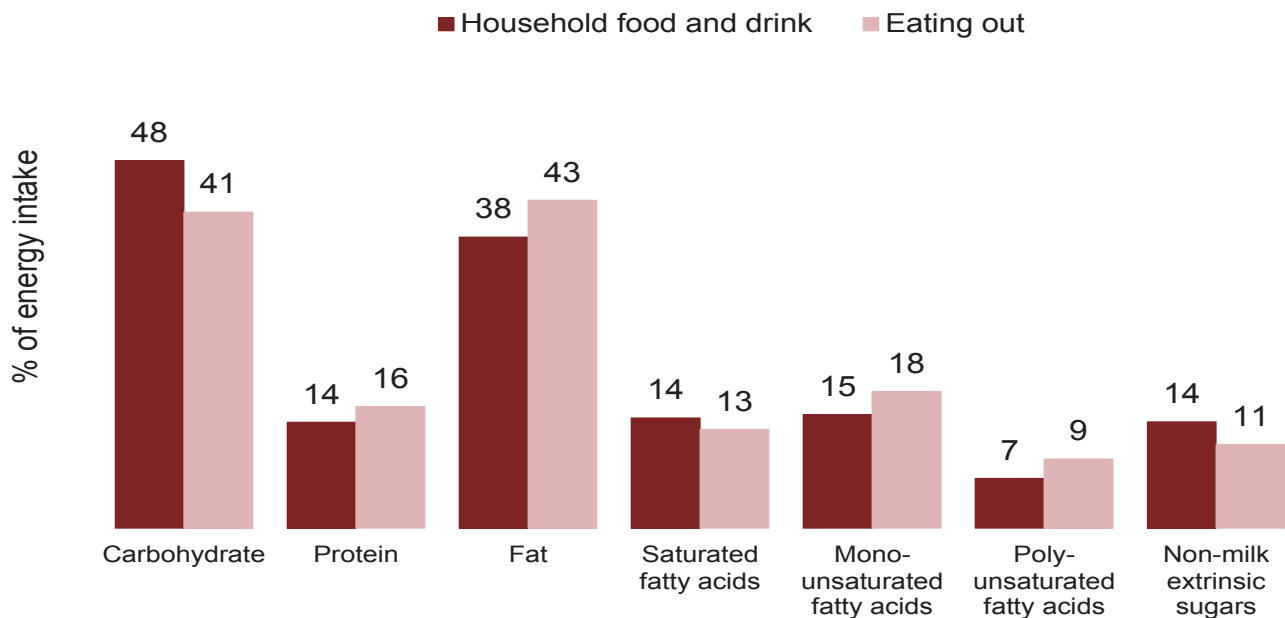
<sup>10</sup> Reference Nutrient Intake: the intake which is considered sufficient to meet the requirements of 97.5% of the population.

<sup>11</sup> Guidance levels for sodium are a maximum daily amount.

<sup>12</sup> 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.



## 6.6: The UK household diet compared with the eating out diet in 2013<sup>13</sup>



Eating out food and drink are products that are consumed before entering the household.

In 2013 eating out contributed 9.7% of energy intake excluding energy from alcohol.

The percentage of energy intake from eating out has fallen steadily from 12% in 2002-03 to 9.5% in 2012 but risen slightly to 9.7% in 2013.

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.

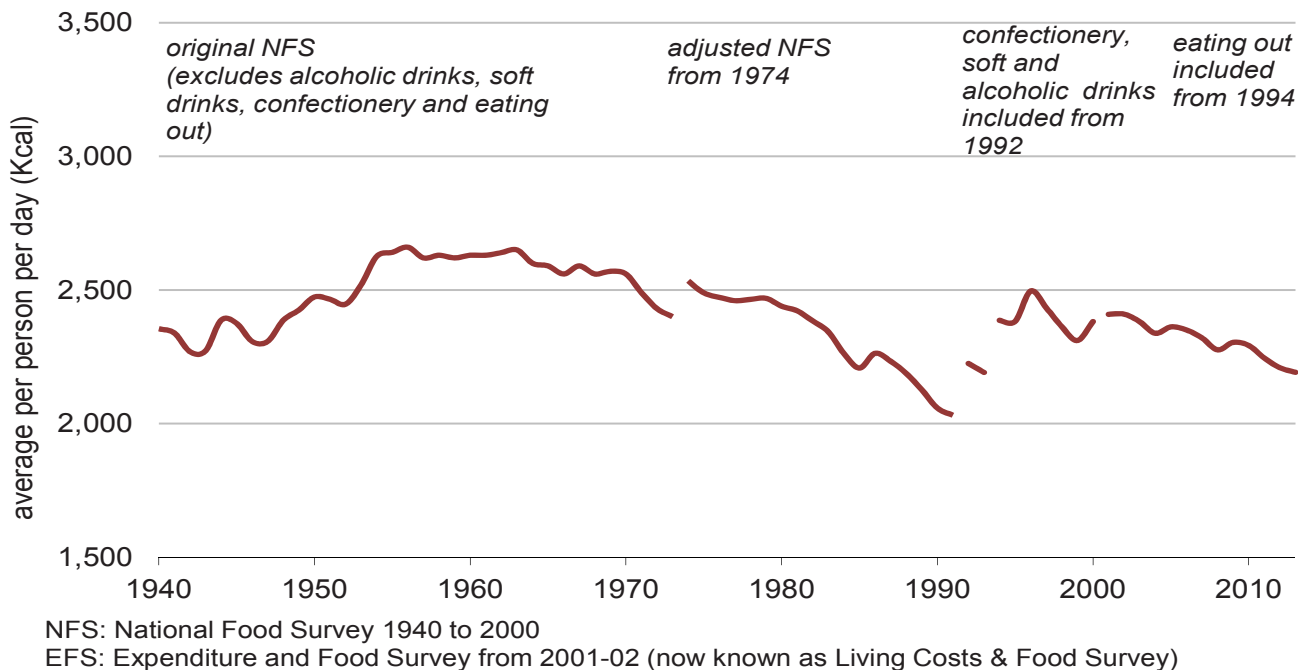
Saturated fatty acids are slightly lower in the eating out diet. They are found in milk and dairy products, meat and meat products, biscuits, cakes and pastries.

Source: *Family Food 2013*, Defra, December 2014.



<sup>13</sup> For recommended intakes see Dietary Reference Values (DRV's) for Food Energy and Nutrients in the United Kingdom, 1991 (Department of Health).

## 6.7: Trends in average energy intake from food and drink to 2013



Average energy intake based on all food and drink purchases fell 0.8% to 2,192 kcal per day in 2013.

Average energy intake based on all food and drink purchases has fallen 9.0% between 2001-02 and 2013.

Energy intake from food and drink recorded as eating out rose 0.4% in 2013 but 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 2013 than in 1974.

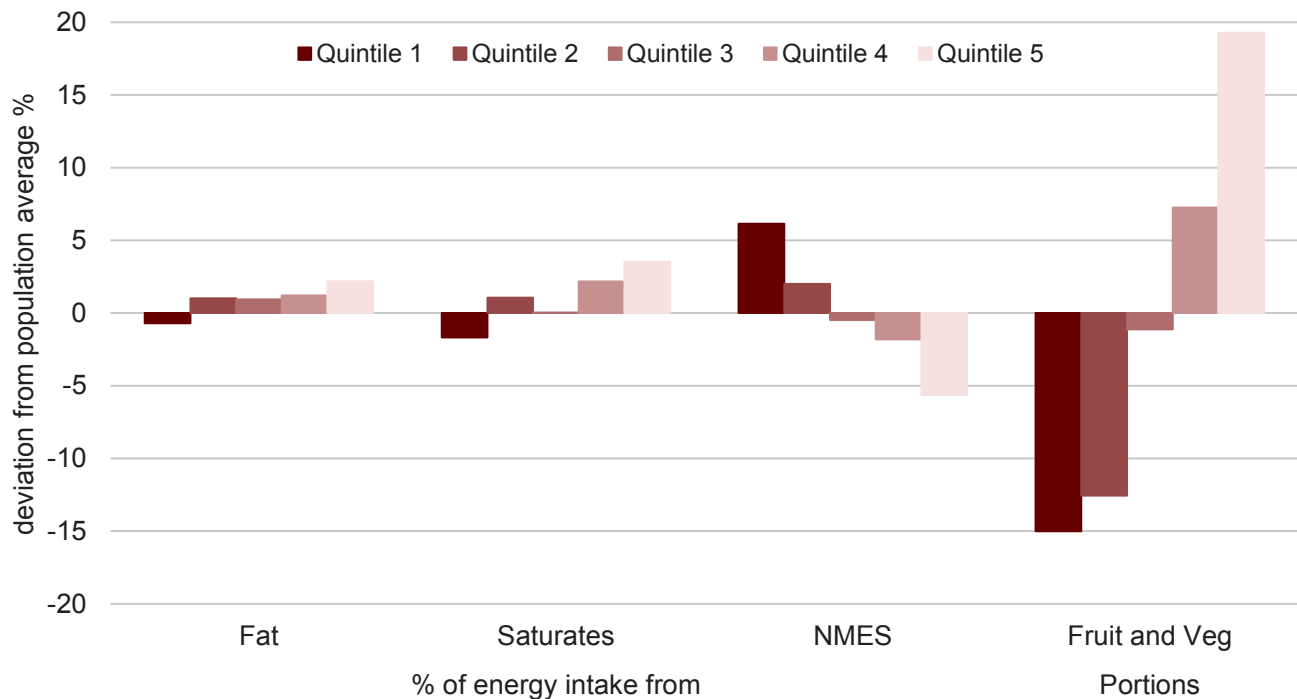
Despite decreasing energy intake, over-consumption of energy relative to our needs is a major factor in increasing levels of obesity, see Chart 6.10.

Lowest income decile households purchased 8.6% less food for the household than the UK average in 2013, when measured by energy content.

Source: *Family Food 2013*, Defra, December 2014.



## 6.8: UK dietary indicators by equivalised income<sup>14</sup>



The percentage of food energy derived from total fat does not vary much with income.

Food energy derived from saturated fatty acids is 5.3% higher in quintile 5 than quintile 1.

The percentage of food energy obtained from NMES<sup>15</sup> tends to fall when income rises. Quintile 1 is 11.1% lower than quintile 5.

Fruit and vegetable purchases rise strongly with income, 40% more being purchased in the highest income quintile compared to the lowest in 2013.

In 2013 the highest income quintile purchased an average of 4.7 portions of fruit and vegetables per day. The lowest income quintile purchased 3.4 portions per day. (See Chart 6.3 for trends). The average across all households is 4.0 portions per day.

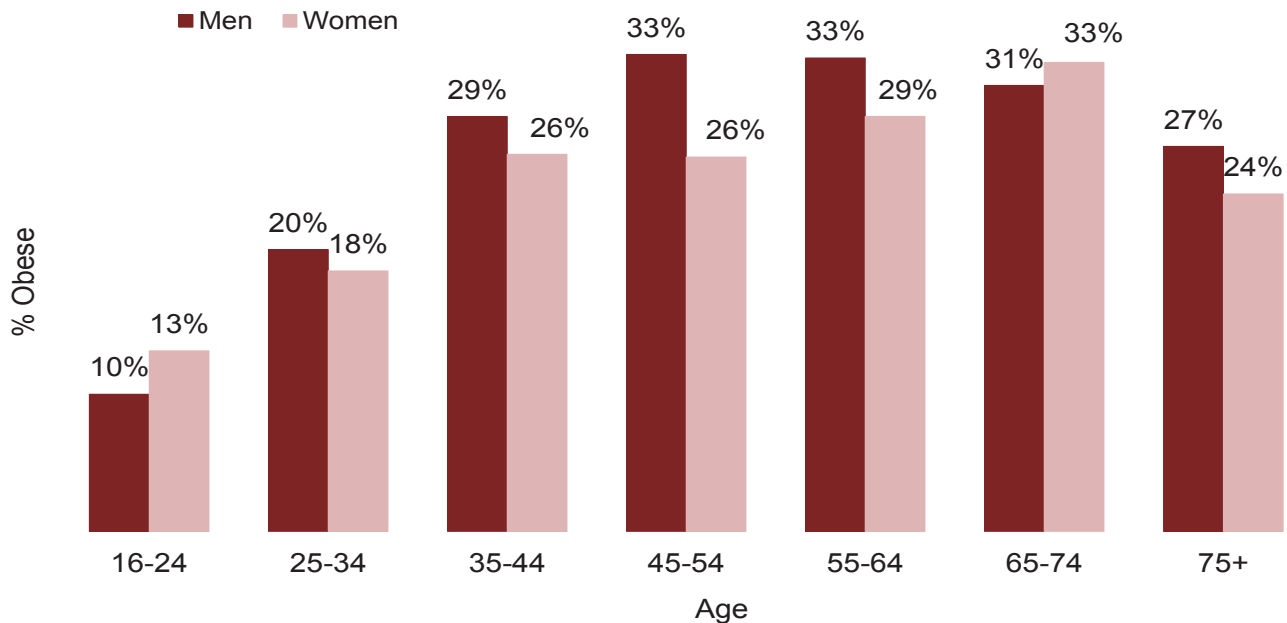
Source: *Family Food 2013, Defra, December 2014.*



<sup>14</sup> Household income adjusted for size and composition using the OECD scale

<sup>15</sup> NMES – free sugar not bound in foods e.g. table sugar, honey and sugars in fruit juices, but excluding milk sugar.

## 6.9: Levels of adult obesity in England<sup>15</sup>



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 2013 25% of adults were obese and a further 37% were overweight.

The obesity rate across all men was 26% in 2013, having increased slightly on 2012. The percentage of overweight (including obese) men was 67% in 2013, unchanged on 2012. The obesity rate in men aged 16-24 increased 27% in 2013 but fell 25% in men aged 25-34.

The obesity rate across all women was 24% in 2013. The obesity rate in women aged 25-34 increased 17% in 2013.

The OECD<sup>16</sup> reported in 2011 that the prevalence of overweight and obesity in adults exceeds 50% in 19 of 34 OECD countries.

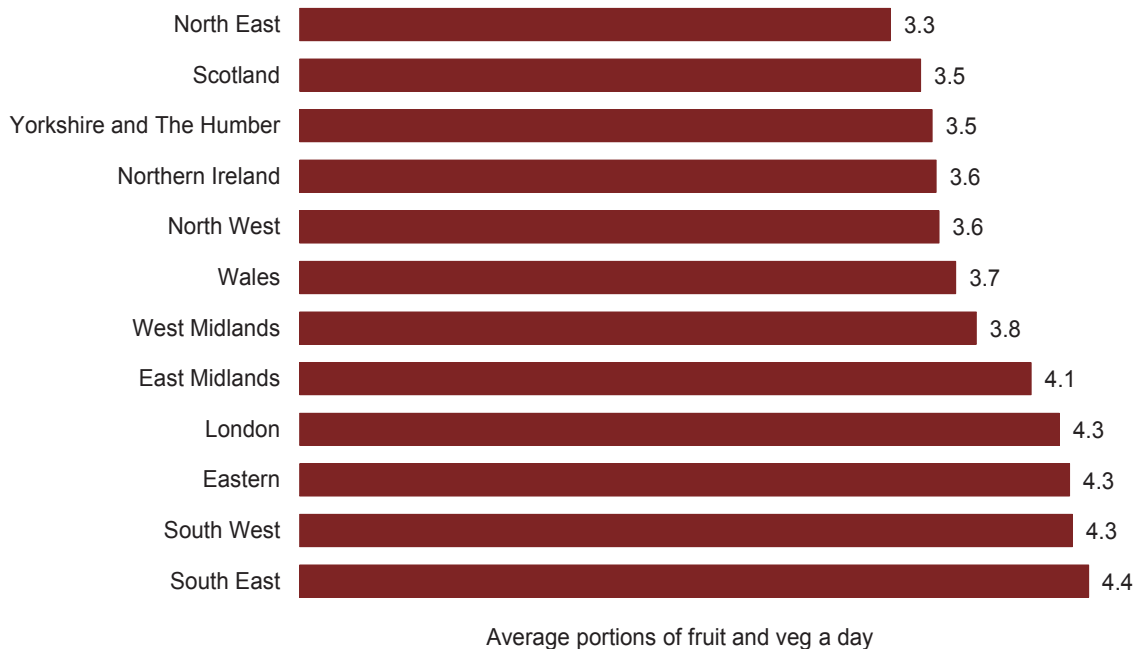
Source: *Health Survey for England 2013, December 2014 (NHS Information Centre).*



<sup>15</sup> Body Mass Index (BMI) is a measure of weight relative to height: underweight = less than 18.5kg/m<sup>2</sup>, normal = 18.5 to less than 25kg/m<sup>2</sup>, overweight = 25 to less than 30kg/m<sup>2</sup>, obese = 30kg/m<sup>2</sup> or more (includes morbidly obese), morbidly obese = 40kg/m<sup>2</sup> or more.

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

## 6.10: UK Regional household consumption of fruit and vegetables, 2011-2013<sup>17</sup>



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

Within the UK, Northern IrelandScotland 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).

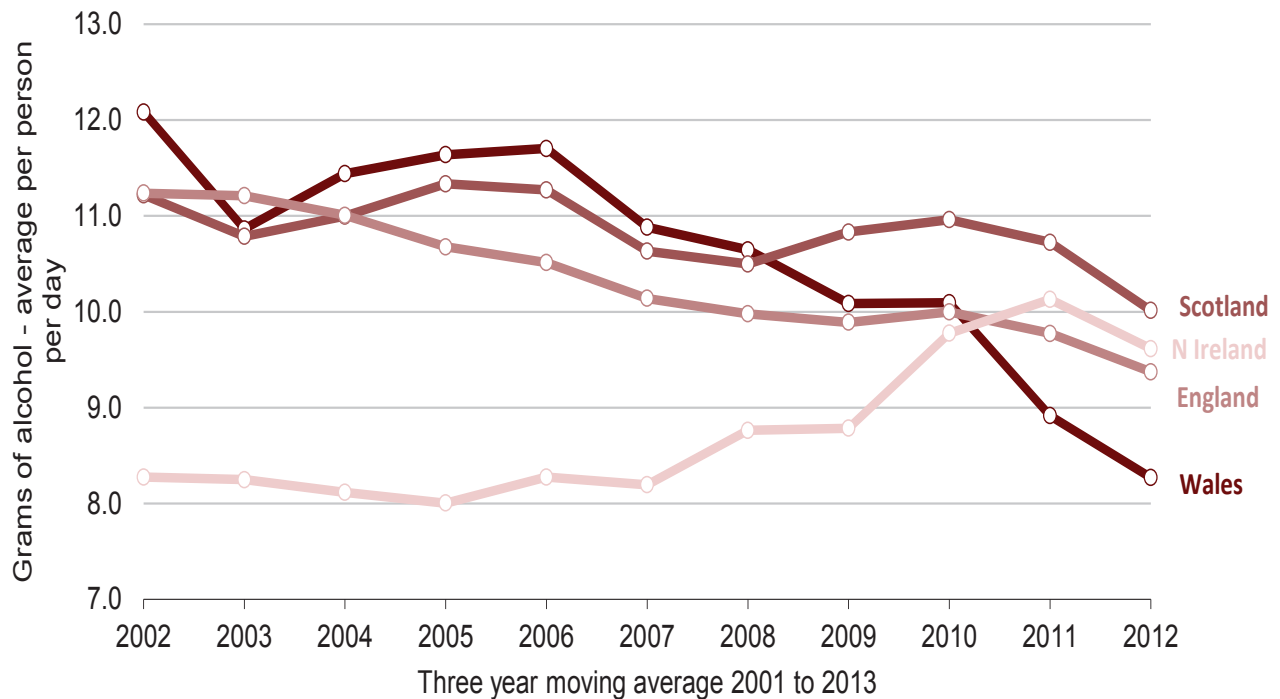
Waste and inedible content are not taken into account here. See Chart 6.3 for trends over time and Chart 5.2 for estimates of edible household waste.

Source: *Family Food 2013, Defra, December 2014.*



<sup>17</sup> 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

## 6.11: UK Trend<sup>18</sup> in average alcohol intake (including eating out)



Averaged across 2011 to 2013, alcohol intake per person fell in all four UK countries, with Wales showing the greatest reduction at 18% to 8.3 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 17% over the same period, although has decreased 5% most recently.

Within England in 2013, average alcohol intake was highest in the North East, one and a half times higher than London which was the lowest.

In Scotland in 2013, over 80% of alcohol intake was from household purchases. In London 22% 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.

Source: *Family Food 2013*, Defra, December 2014.

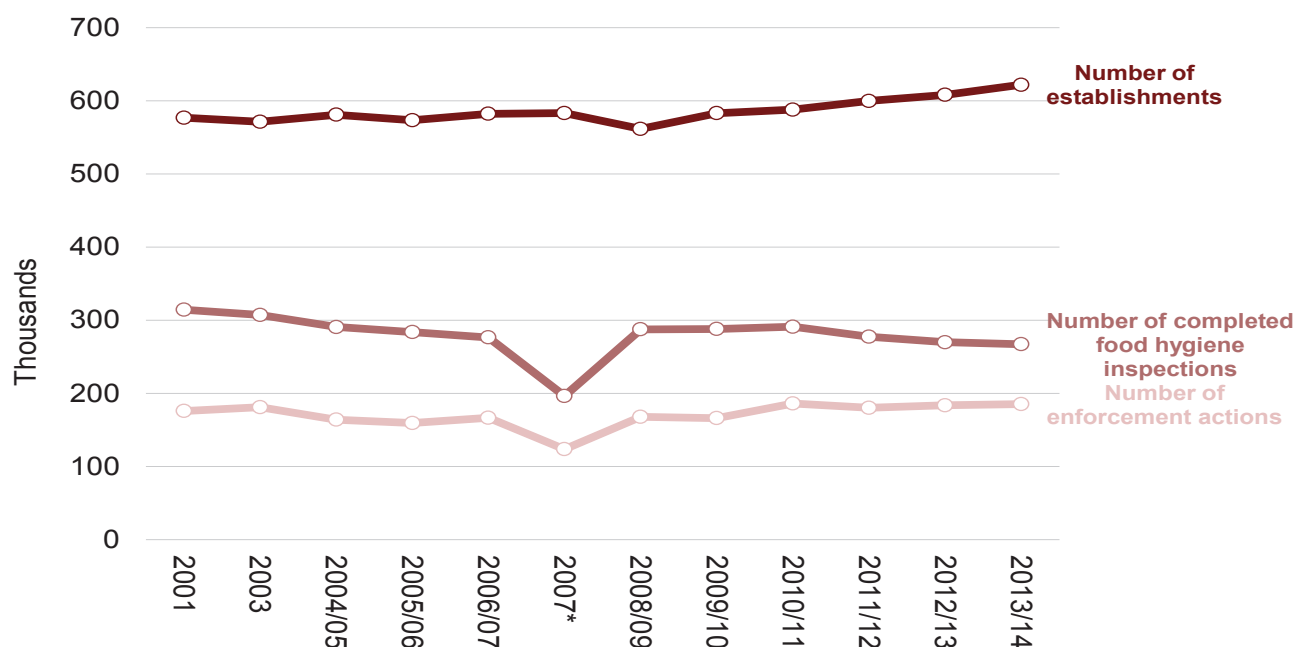


<sup>18</sup> Three year moving average, 2001 to 2013

## 7 Safety and Confidence



### 7.1: UK Inspections and enforcement actions of food businesses to 2013-14



\* 2007 data is for 9 months only

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 622,015 food establishments under LA control at 31 March 2014, 2.3% up on 2012-13.

524,491 interventions were carried out by LAs in 2013-14 (411,077 food hygiene and 113,414 food standards), a decrease of 0.2% on the reported number carried out in 2012-13 (525,588).

185,385 formal enforcement actions were carried out in 2013-14, an overall increase of 1.0% on 2012-13 (183,566).

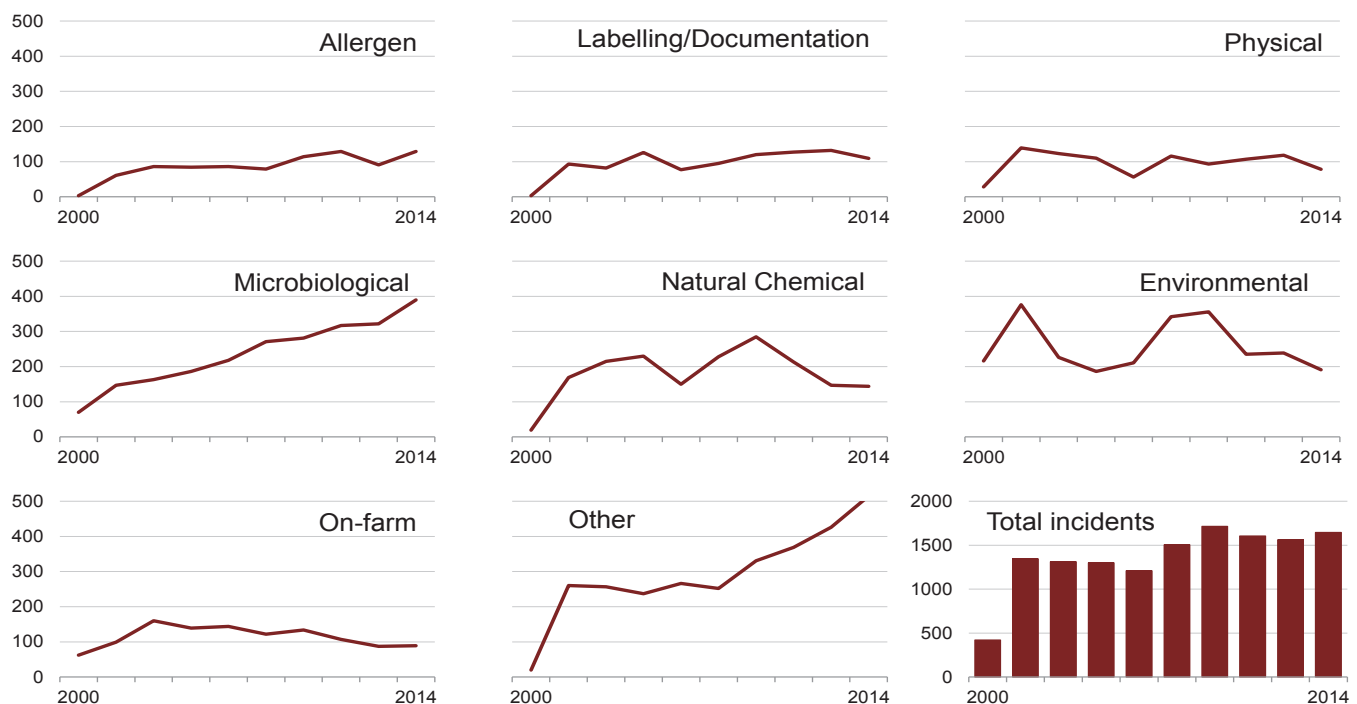
5.6% of establishments were not yet risk rated in 2013-14, an improvement on 5.9% in 2012-13. The level of broad compliance and above<sup>1</sup> was 91.7%, an improvement on 91.2% in 2012-13.

Source: Food Standards Agency Board report on monitoring of food law enforcement activity, 2013-14.



<sup>1</sup> 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.

## 7.2: Contamination incidents investigated by the Food Standards Agency (FSA) by type<sup>2</sup>, UK 2006-2014



In 2014, the FSA investigated 1,645 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. The majority of incidents (58%) were classified as “low” as they are considered minor, with localised effects and few, if any, food safety implications.

Microbiological contamination incidents make up the largest proportion of all cases at 24%, with incident numbers increasing steadily since 2006 to 390 incidents in 2014. In 2014, 41% of these incidents were due to *E. coli*, rising from 18% in 2013, although partially attributed to changes in reporting practices.

Almost four fifths of environmental contamination was caused by fires in 2014, with the majority of the rest due to spills and leaks. Allergen incidents rose 42% in 2014 to 129 compared to 91 recorded in 2013.

Reduced levels of salmonella contamination may have been due to import restrictions on paan leaves mainly from Bangladesh. Variations in weather may have contributed to the rise in *E. coli* incidents related to shellfish although there is no clear cause.

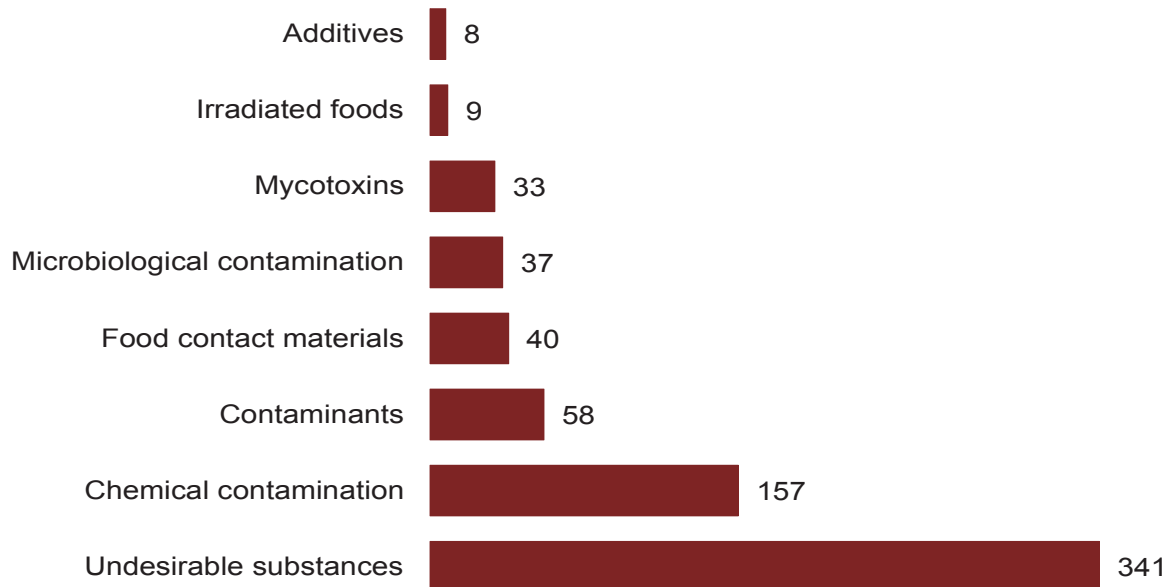
Source: *Annual Report of Incidents, 2014 (FSA)*.



<sup>2</sup> ‘Other’ includes food contact materials, veterinary medicines, use of authorised ingredients, pesticides etc. Microbiological contamination is the main cause of food poisoning.



### 7.3: Number of unsatisfactory analyses found in imported food by type, 2012-13



Samples taken as part of this programme are targeted towards areas of known or suspected risk. 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 2012-13 sampling programme, 4327 samples were submitted for chemical analysis. Of these, 4170 were reported as satisfactory. The most commonly sampled food groups were: fruit and vegetables (26%), fats and oils (14%), meat/meat products (12%), herbs/spices (11%) and fish/shellfish (6%).

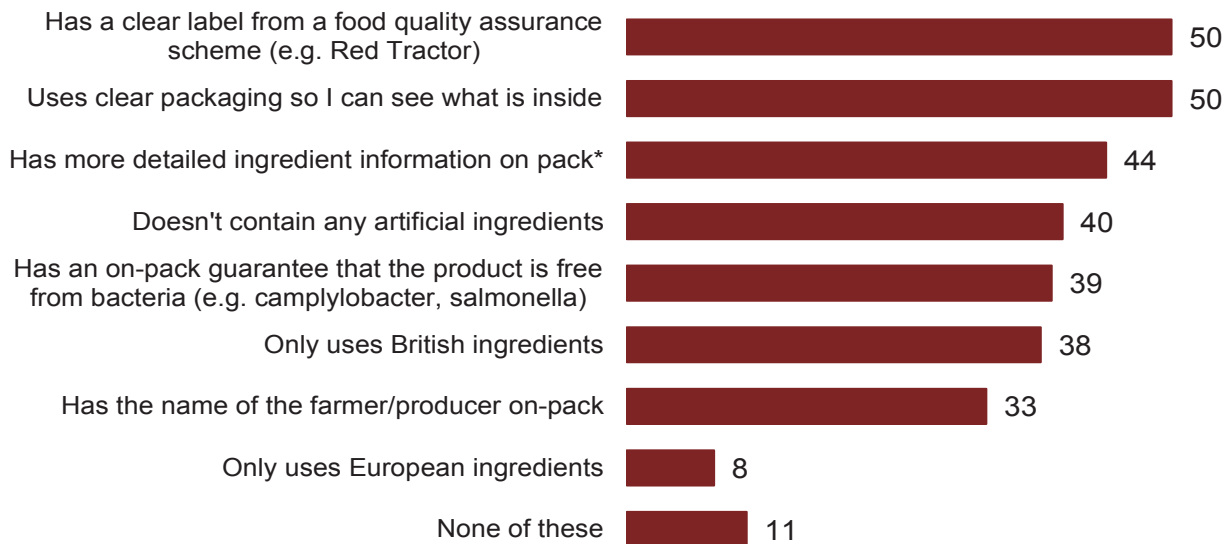
As seen in previous years, Asia was the source continent of the highest number of non-compliances, with the majority of these samples originating from China, India and Thailand.

Source: *National co-ordinated risk-based food sampling programme 2012-13, FSA.*



<sup>3</sup> Sampling was targeted at foods most likely to be affected by the specific areas of concern e.g. nut products were tested for mycotoxins.

## 7.4: Factors That Would Make People Trust Food And Drink Companies/Brands More, March 2015



\* eg where ingredients are sourced, how the ingredient is used

EU regulation requires that country of origin details be provided for various food products, primarily unprocessed meat and fruit and vegetables. The country of origin must also be provided 'whenever its absence is likely to mislead consumers as to the true country of origin'.

Reflecting this and a voluntary initiative by Food and Drink Federation members, fresh meat, poultry and fish now carry origin details, highlighting a British provenance when applicable. Referencing British origin is clearly worth doing as 38% of people say only using British ingredients encourages their trust in a product. This falls to 8% for European ingredients.

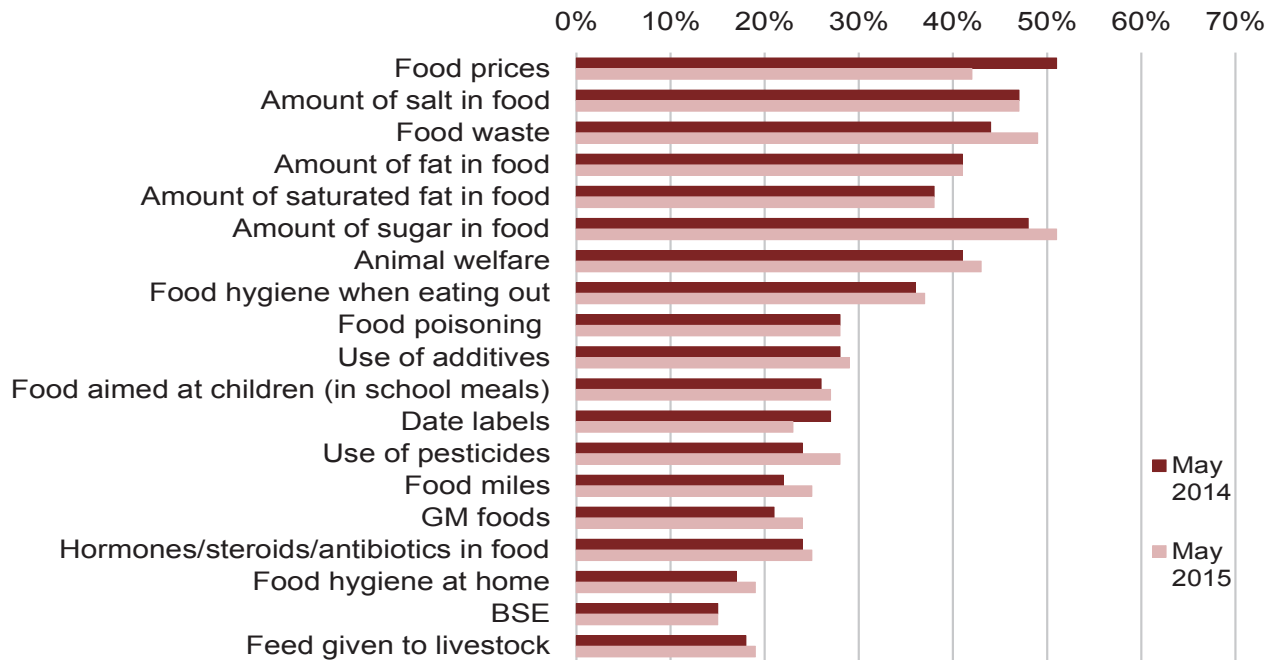
While the experiences of for example Weetabix and Hovis show that commitment to British ingredients can pose challenges in the event of poor crops, highlighting such ingredients where they are present should benefit operators.

However, nearly half of Brits say that more detailed ingredient information, such as the origin or how it is used, on-pack would encourage them to trust a food/drink company or brand more. This suggests significant scope for operators to build trust among consumers by providing more information on ingredients, where they come from and why they are used.

Source: *Consumers' Food Safety Concerns Report, UK, May 2015, Lightspeed GMI/Mintel.*



## 7.5: Percentage of people concerned about certain food issues, 2014-15



The main food issue of concern to people is the amount of sugar in food, with 51% concerned in May 2015, an increase from 48% in May 2014. Year on year food prices fell for the first time since 2006 in the year to May 2014, continuing below zero up to publication, and food prices were below general inflation.

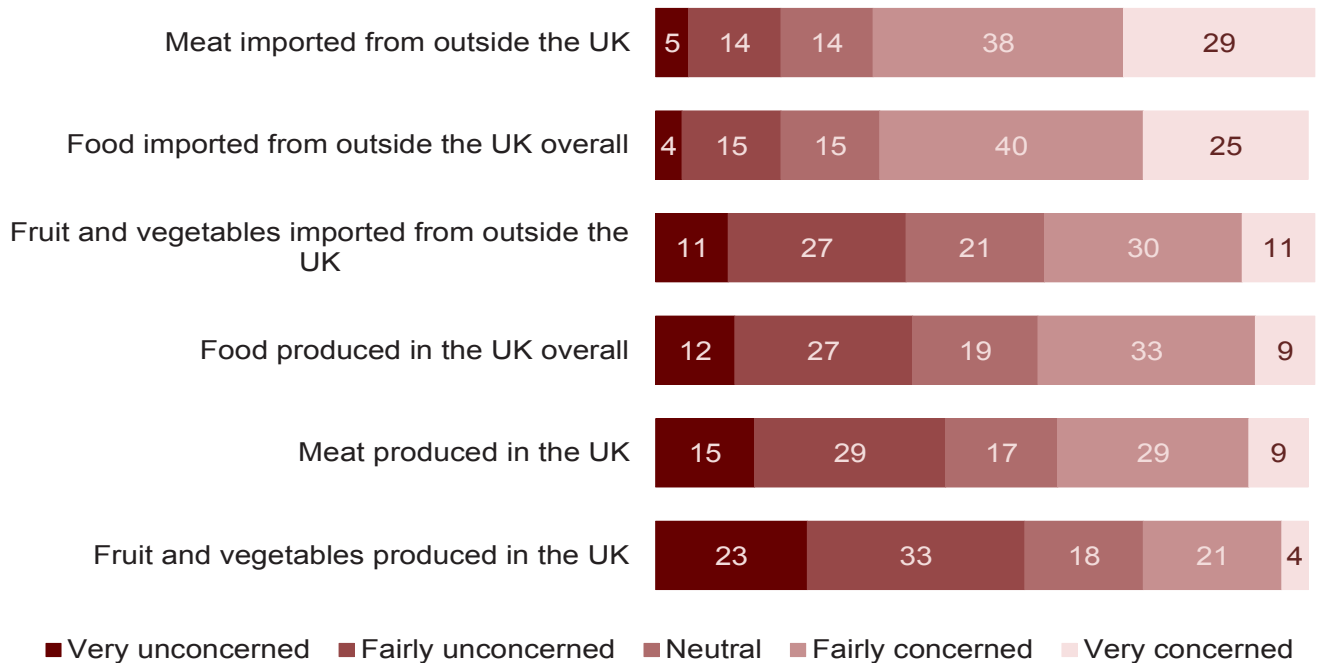
Most food issues show an unchanged or lower level of concern than the previous year. Notable exceptions to this were concerns about sugar, animal welfare, pesticides, and GM in foods.

Food prices, salt, sugar, fat, waste and animal welfare are the issues where more than 40% of people are concerned. In May 2015 14% of respondents reported no food safety issues of concern.

Source: *Biannual public attitudes tracker (FSA) May 2015*



## 7.6: Percentage of people concerned about where food is produced



Food safety in imported products, in particular meat from outside the UK, caused the most concern for respondents<sup>6</sup>.

67% of survey respondents expressed concern about imported meat compared to 62% in 2012, of which 29% were very concerned (24% in 2012). This compared with 9% being very concerned and 29% showing some concern for meat produced in the UK.

39% of respondents were unconcerned about food produced in the UK, although 27% were fairly concerned.

The safety of fruit and vegetables produced in the UK concerned the least number of respondents with only 4% being very concerned, whilst 74% expressed either no concern or no opinion.

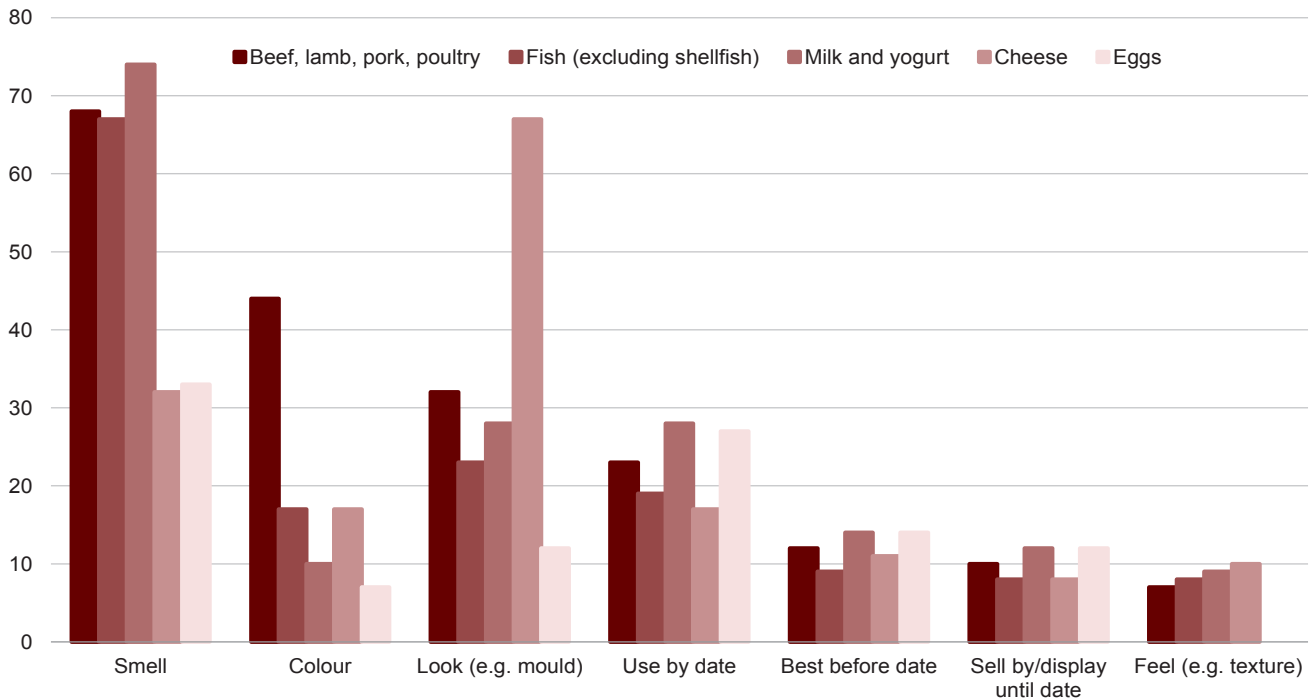
Source: *Food and You Survey 2014*<sup>7</sup>, (FSA).



<sup>6</sup> Survey sample was a stratified, clustered random probability sample of private UK Households.

<sup>7</sup> This survey was carried out during 2014; although there were changes to the survey questions in 2014, it is possible that these results have been influenced by the horsemeat fraud activity in early 2013.

## 7.7: Methods used to assess whether food is safe to eat



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 second, third or fourth most commonly reported method of indicating food safety.

How food smelled was the method used by between 68% and 74% 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 19% of respondents said that their preferred method was whether the eggs floated in water.

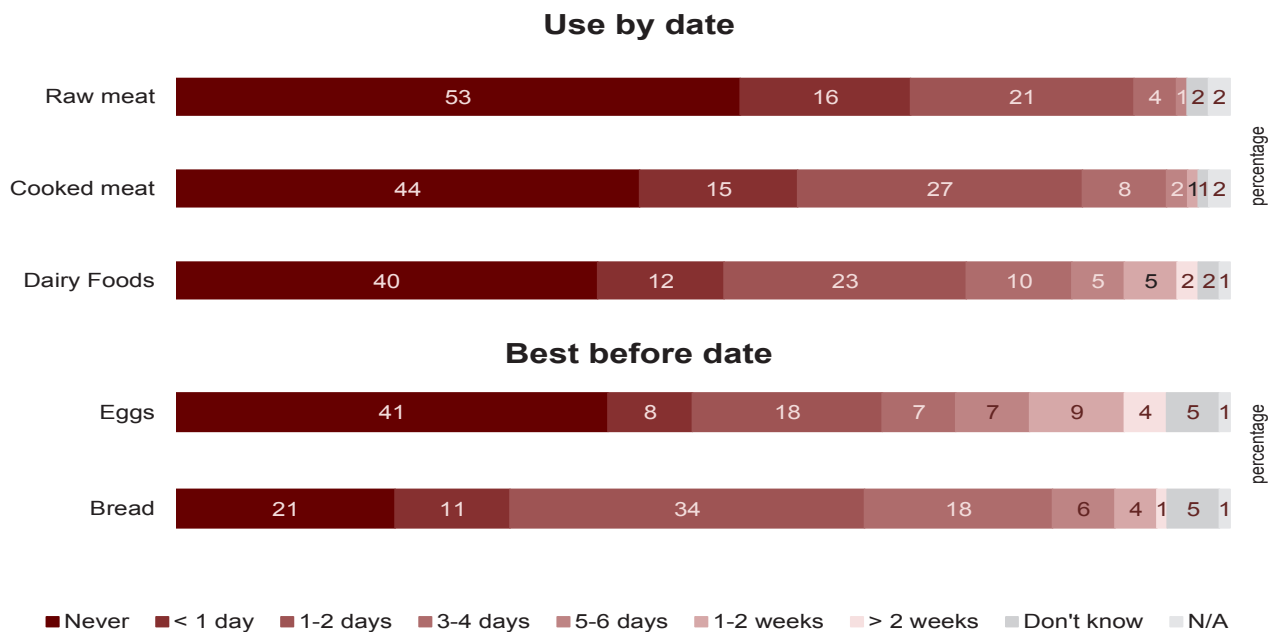
Promoting food safety and protecting public health are central strategic objectives of the Food Standards Agency (FSA).

Source: *Food and You Survey 2014*<sup>8</sup>, FSA



<sup>8</sup> Survey sample was a stratified, clustered random probability sample of private UK Households.

## 7.8: Maximum time after use by date / best before date that respondents would eat / use food



The FSA recommends that foods should be consumed before the specified use by date as it could be dangerous to eat food after this, even though it might look and smell fine.<sup>9</sup>

When asked about bread and eggs, respondents were more likely to report that they would eat them for longer after the recommended date, compared with any other food asked about. For example 28% and 26% of respondents said they would eat bread and eggs (respectively) three days or more after the best before date.

Twenty-two per cent of respondents said they would eat dairy products three days or more after the use by date. Respondents were less likely to report that they would eat meat for longer after the recommended date, compared with the other foods asked about. For example, 11% of respondents reported that they would eat cooked meat three days or more after the use by date, while six per cent said they would use raw meat three days or more after the use by date.

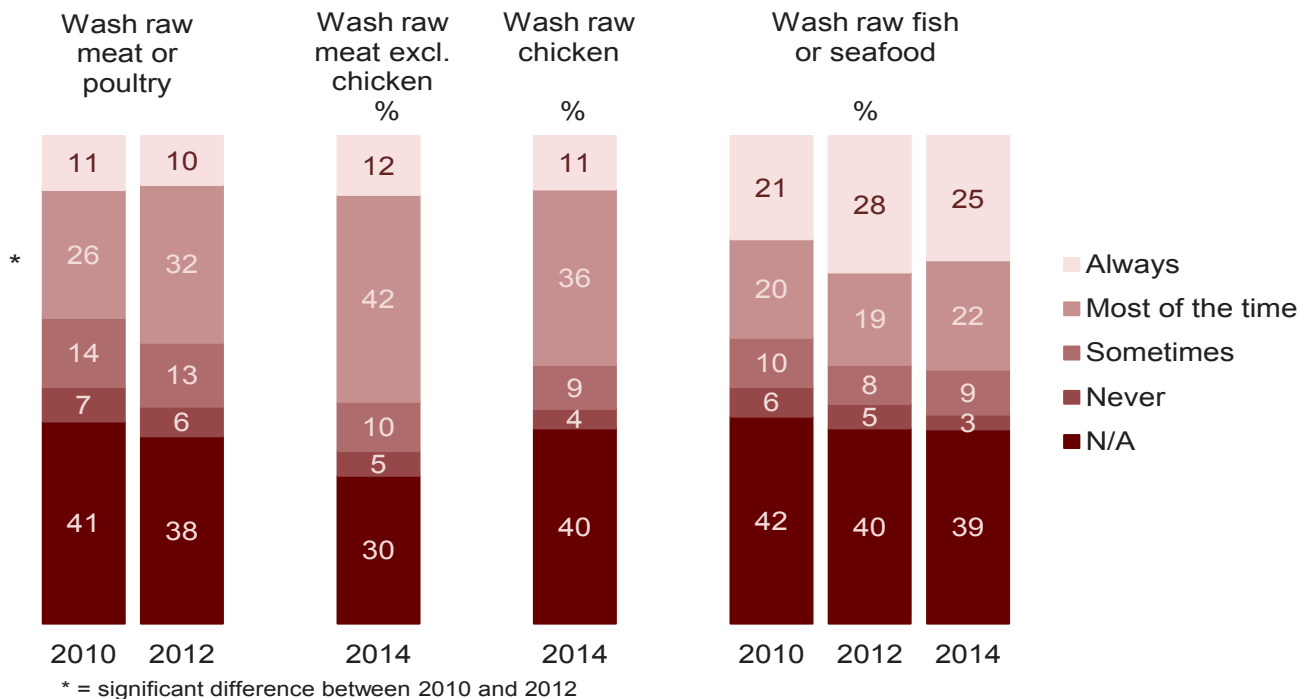
Some differences were observed at Wave 3 (2014) compared with findings at Wave 2 (2012). Respondents were more likely to report eating raw meat less than a day after the use by date (16% compared with 13% at Wave 2) and less likely to say they would eat it between one and two days after (21% compared with 24% at Wave 2). Respondents were less likely to say they would never eat eggs after the best before date (41% compared with 45% at Wave 2).

Source: *Food and You Survey 2014*, (FSA).



<sup>9</sup> Although dairy foods were asked about with respect to 'use by' dates, current guidelines state that each dairy product should have a date mark which is appropriate for the specific product. Foods which are microbiologically highly perishable or likely to become an immediate danger to human health after a short period of time will have a use by date. Other products may have a best before date. Further detail of these guidelines can be found at the following link: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69316/pb132629-food-date-labelling-110915.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69316/pb132629-food-date-labelling-110915.pdf)

## 7.9: Frequency of washing raw meat, fish or poultry<sup>10</sup>



The Food and You Survey has asked about food preparation practice in four waves over four years. Similar to findings at Waves 1 (2010) and 2(2012), 22% of respondents reported that they never washed raw fish or seafood when preparing and cooking it, while 53% reported that they did at least some of the time. Thirty nine per cent of Wave 3 (2014) respondents said they always washed raw fish or seafood.

Compared with washing fish and seafood, a higher proportion of respondents reported that they never washed raw meat or poultry. Changes to the question at Wave 3 to separate raw meat and poultry other than chicken from raw chicken make comparisons with Waves 1 and 2 difficult. Nevertheless there appeared to have been an increase in the proportion of respondents reporting that they never washed raw meat at Wave 3, particularly meat other than chicken. This follows a higher proportion of respondents reporting that they never washed raw meat or poultry at Wave 2 compared with at Wave 1 (32% compared with 26%).

Respondents were more likely to report washing chicken than other meats. Forty two per cent said they never washed meat other than chicken, with 46% reporting that they did so at least sometimes. Thirty six per cent of respondents said that they never washed chicken, but over half (53%) reported washing chicken at least sometimes.

Source: *Food and You Survey 2014, FSA*



<sup>10</sup> The FSA recommends that raw meat and fish are not washed prior to cooking due to the risk of cross contamination from water splashing on the sink, surrounding surfaces, and utensils, which may come into contact with ready to eat food.

## 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:	46.3 (excluding 46.35) + 46.17
Food Retailing:	47.2 (excluding 47.26) + 47.11 + 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.

## 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) 2013-14.

## 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.