

Statistical bulletin

Retail sales, Great Britain: June 2015

A first estimate of retail sales in volume and value terms, seasonally and non-seasonally adjusted.



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1 . Main points

- Year-on-year estimates of the quantity bought in the retail industry continued to show growth for the 27th consecutive month in June 2015, increasing by 4.0% compared with June 2014. This was the longest period of sustained year-on-year growth since May 2008, when there were 31 periods of growth
- The underlying pattern in the data, as suggested by the 3 month on 3 month movement in the quantity bought, continued to show growth for the 28th consecutive month, increasing by 0.7%. This is the longest period of sustained growth since consistent records began in June 1996
- Compared with May 2015, the quantity bought in the retail industry was estimated to have decreased by 0.2%. Falls were reported by predominantly food stores, other stores, household goods stores and petrol stations
- Average store prices (including petrol stations) fell by 2.9% in June 2015 compared with June 2014. This is the 12th consecutive month of year-on-year price falls with all store types reporting decreases. The largest contribution came once again from petrol stations which fell by 10.0%, the 22nd consecutive month of year-on-year falling prices in this store type
- In June 2015, the amount spent in the retail industry increased by 0.9% compared with June 2014, but decreased by 0.1% compared with May 2015. Non-seasonally adjusted data show that the average weekly spend in the retail industry was £7.1 billion, unchanged from the previous month and the June 2014 figure
- The value of sales made online in June 2015 increased by 1.4% compared with May 2015 and accounted for 12.4% of all retail sales. Online sales increased by 11.4% compared with June 2014
- The value of sales made online in June 2015 increased by 1.4% compared with May 2015 and accounted for 12.4% of all retail sales. Online sales increased by 11.4% compared with June 2014
- Revisions in this release were caused by the incorporation of late data. The earliest revisions point for current price, non-seasonally adjusted data was June 2014. More information on revisions can be found in the background notes

2 . About this release

This bulletin presents estimates of the quantity bought (volume) and amount spent (value) in the retail industry for the period 31 May 2015 to 4 July 2015. Unless otherwise stated, the estimates in this release are seasonally adjusted.

Users are reminded that the figures contained in this release are estimates based on a monthly survey of 5,000 retailers, including all large retailers employing 100 people or more and those with annual turnover of greater than £60 million who employ 10 to 99 people.

3 . The quality of the estimate of retail sales

Retail sales estimates are produced from the monthly business survey – RSI. The timeliness of these retail sales estimates, which are published just 3 weeks after the end of each month, makes them an important early economic indicator. The industry as a whole is used as an indicator of how the wider economy is performing and the strength of consumer spending. Results are revised for the previous 13 published periods. More information about the data content for this release can be found in the background notes.

Revisions are an inevitable consequence of the trade-off between timeliness and accuracy. The response rate in June 2015 was 60.1% of questionnaires, accounting for 92.5% of registered turnover in the retail industry. Therefore the estimate is subject to revisions as more data become available.

All estimates, by definition, are subject to statistical uncertainty and for the retail sales index we publish the standard error associated with the non-seasonally adjusted estimates of year-on-year and month-on-month growth in the quantity bought as a measure of accuracy. More information on these standard errors can be found in the background notes of this bulletin and in the quality tables of this release.

It should be noted that we are continually working on methodological changes to improve the accuracy of the retail sales estimates; progress on these can be found on the ONS continuous improvement page on our website.

For different ways to access the data see the reference tables section on our website. These include:

- non-seasonally adjusted and seasonally adjusted volume and value indexes by industry
- year-on-year and month-on-month growth rates by industry

4 . Main figures

Table 1: All retailing, June 2015 (seasonally adjusted percentage change)

Great Britain

| | Most recent month on a year earlier | Most recent 3 months on a year earlier | Most recent month on previous month | Most recent 3 months on previous 3 months |
|----------------------------------|--|---|--|--|
| Value (Amount spent) | 0.9 | 1.3 | -0.1 | 0.7 |
| Volume (Quantity bought) | 4.0 | 4.4 | -0.2 | 0.7 |
| Value excluding automotive fuel | 1.9 | 2.2 | 0.0 | 0.7 |
| Volume excluding automotive fuel | 4.2 | 4.3 | -0.2 | 1.0 |

Source: Office for National Statistics

At a glance

In June 2015, the quantity bought in the retail industry (volume) increased by 4.0% compared with June 2014. The amount spent (value) increased by 0.9%. In June 2015, non-seasonally adjusted data show that the prices of goods sold in the retail industry (as measured by the implied price deflator) decreased by 2.9%. More information on how the implied price deflator is calculated can be found in section 3 of the background notes.

Amount spent in the retail industry

In the 5 week reporting period during June 2015, the amount spent in the retail industry was £35.6 billion (non-seasonally adjusted). This compares with £28.3 billion in the 4 week reporting period for May 2015 and £35.3 billion in the 5 week reporting period for June 2014.

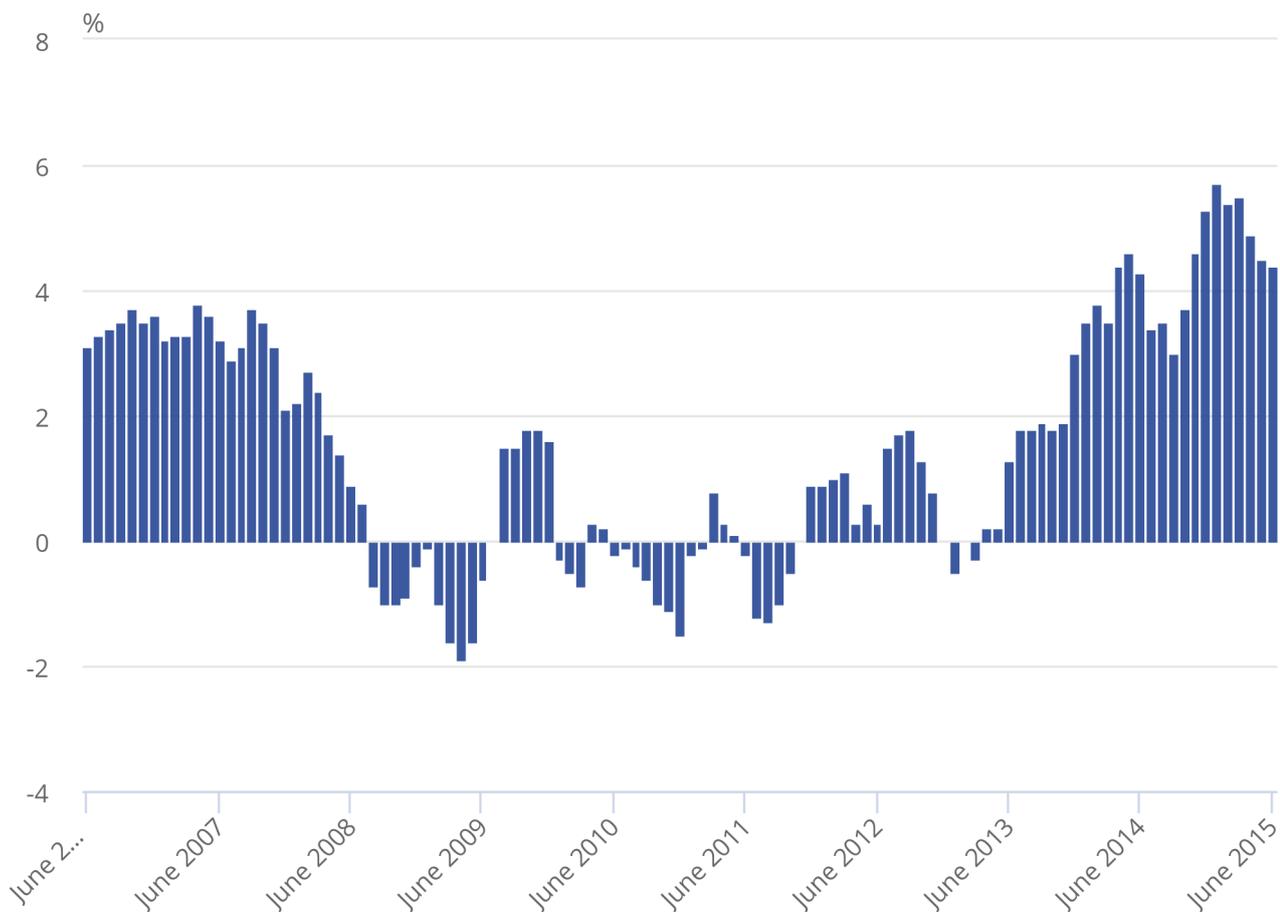
This equates to an average weekly spend of £7.1 billion in June 2015, unchanged from the previous month and the June 2014 figure.

5 . Economic context

Figure 1: 3 month on 3 month a year earlier growth in the volume of retail sales, 3 months to June 2006 to 3 months to June 2015

Great Britain

Figure 1: 3 month on 3 month a year earlier growth in the volume of retail sales, 3 months to June 2006 to 3 months to June 2015
Great Britain



Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Three distinct periods emerge from Figure 1. Between June 2006 and July 2008 retail sales volumes were experiencing continuous growth with the volume of sales increasing by 2.4% over the period. Growth in inflation ([Consumer Prices Index](#)) was consistently lower than average weekly earnings over most of this period, meaning real earnings grew, which possibly increased the purchasing power of consumers.

However, between August 2008 and May 2013, the volume of retail sales fluctuated between periods of contraction and expansion, and as a result broadly the same volume of sales were recorded toward the beginning and end of the period. This weakness may be partly explained by the economic climate over this period. Growth in [average weekly earnings](#) had been lower than inflation over most of the period, which implies that earnings fell in real terms. However, the value of retail sales continued to grow, increasing by 12.8% over the period, reflecting rising prices between these dates.

The third period shown in Figure 1 started in June 2013, when growth in volume terms began to increase notably, despite average weekly earnings growing at a slower rate than CPI until September 2014. The volume of retail sales in June 2015 was 7.7% higher than it was in June 2013.

In 2013 prices in retail outlets began to fall and this accelerated throughout 2014 and coincided with increased growth in retail sales over this period. In addition, this upturn in spending has been accompanied by a decline in the [savings ratio](#), from an average of 8.5% over the period 2008 to 2012, to an average of 6.1% in 2014.

6 . Contributions to growth

The retail industry is divided into 4 retail sectors:

- predominantly food stores (for example, supermarkets, specialist food stores and sales of alcoholic drinks and tobacco)
- predominantly non-food stores (for example, non-specialised stores, such as department stores, textiles, clothing and footwear, household goods and other stores)
- non-store retailing (for example, mail order, catalogues and market stalls)
- stores selling automotive fuel (petrol stations)

In June 2015, for every pound spent in the retail industry:

- 41 pence was spent in food stores
- 42 pence in non-food stores
- 7 pence in non-store retailing
- 10 pence in stores selling automotive fuel

Using these as weights, along with the year-on-year growth rates, we can calculate how each sector contributed to the total year-on-year growth in the quantity bought.

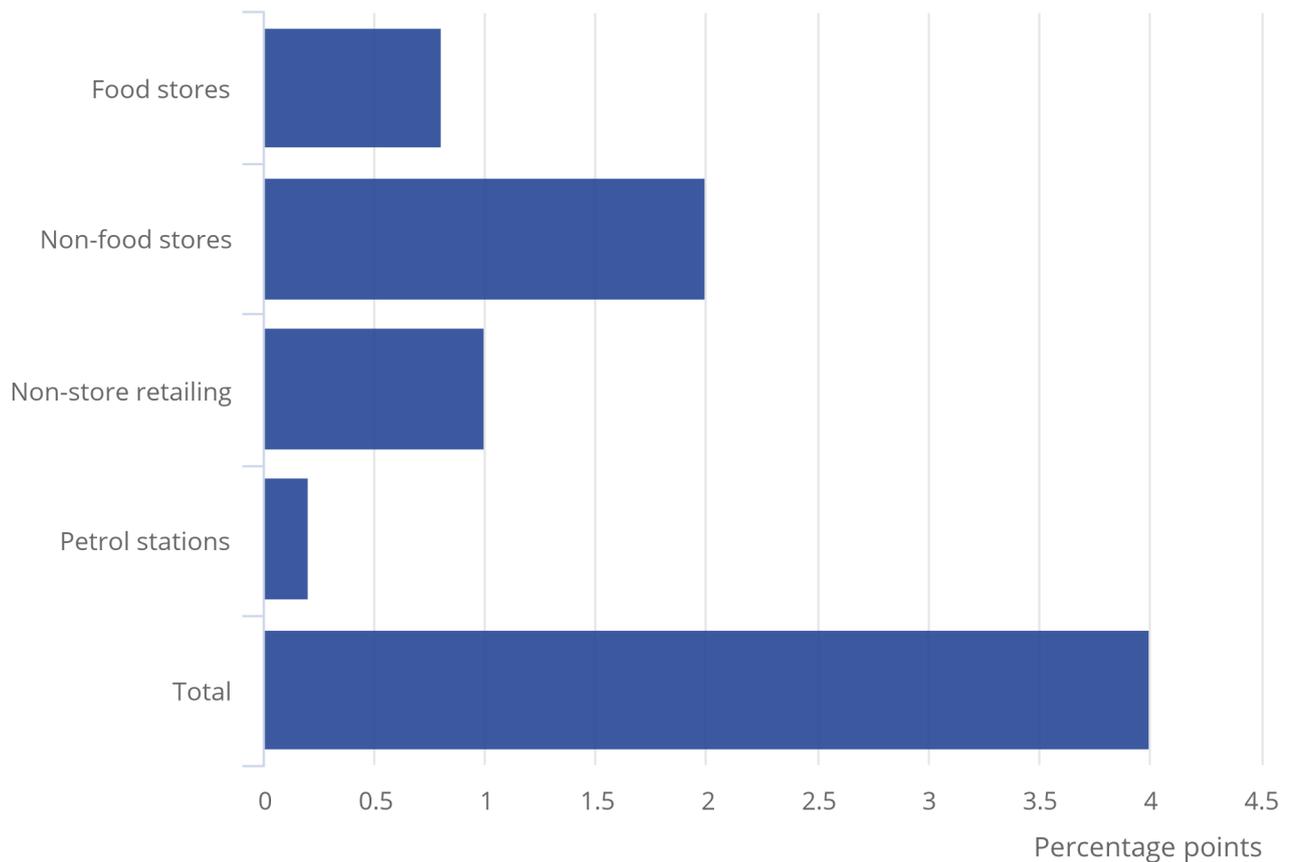
Figures 2 and 3 show the contribution of each sector to the quantity bought (volume) and amount spent (value) in the retail industry between June 2015 and June 2014.

Figure 2: Contributions to year-on-year volume growth from the 4 main retail sectors (June 2015 compared with June 2014)

Great Britain

Figure 2: Contributions to year-on-year volume growth from the 4 main retail sectors (June 2015 compared with June 2014)

Great Britain



Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

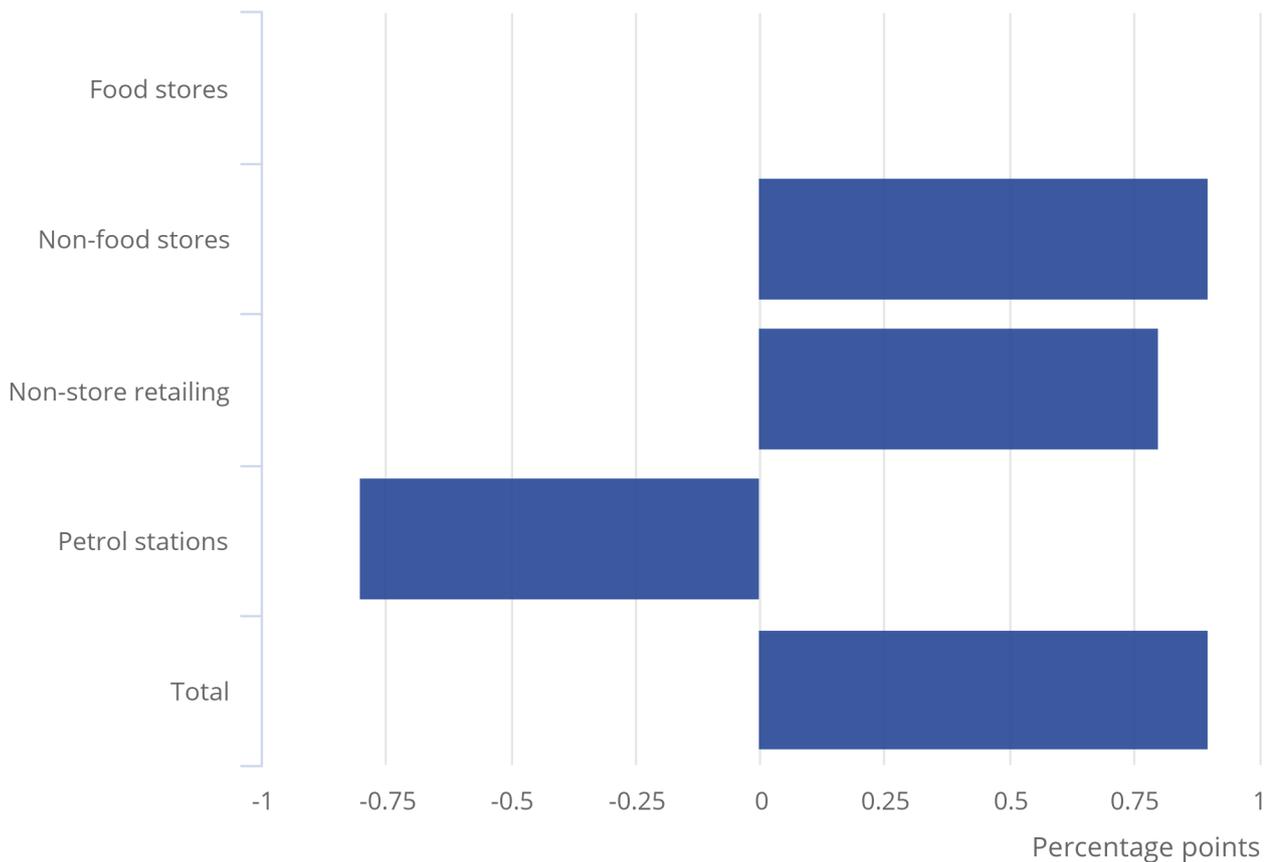
In June 2015, all 4 main retail sectors saw an increase in the quantity bought (volume). The largest contribution came from the non-food stores sector.

Figure 3: Contributions to year-on-year value growth from the 4 main retail sectors (June 2015 compared with June 2014)

Great Britain

Figure 3: Contributions to year-on-year value growth from the 4 main retail sectors (June 2015 compared with June 2014)

Great Britain



Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

In June 2015, 2 out of the 4 main sectors (non-store retailing and non-food stores) contributed to the increase in amount spent (value). The largest contribution came from the non-food stores sector.

7 . Sector summary

Main points:

- in June 2015, all store types except other stores showed increases in the quantity bought compared with June 2014
- all store types except other stores and petrol stations showed increases in the amount spent year-on-year
- in June 2015, all store types saw falls in average store price compared with June 2014

Table 2: Sector summary, June 2015

Great Britain

| | Percentage change over 12 months | | | Average weekly sales (£ billion) |
|--|----------------------------------|----------------------|---------------------|----------------------------------|
| | Quantity bought (volume) | Amount spent (value) | Average store price | |
| Predominantly food stores ¹ | 1.9 | 0.0 | -1.9 | 2.9 |
| Predominantly non-food stores ² | 4.6 | 2.3 | -2.0 | 3.0 |
| Non-specialised stores ³ | 7.0 | 4.5 | -2.3 | 0.6 |
| Textile, clothing and footwear stores | 6.2 | 4.7 | -1.2 | 0.9 |
| Household goods stores | 7.8 | 4.9 | -2.5 | 0.6 |
| Other stores | -0.3 | -2.9 | -2.5 | 0.9 |
| Non-store retailing | 14.8 | 10.8 | -3.4 | 0.5 |
| Fuel stores | 2.3 | -7.9 | -10.0 | 0.7 |
| Total | 4.0 | 0.9 | -2.9 | 7.1 |

Source: Office for National Statistics

Notes:

1. Supermarkets, specialist food stores and sales of alcoholic drinks and tobacco
2. Non-specialised stores, textiles, clothing and footwear, household goods and other stores
3. Department stores

More information on how average store prices are calculated can be found in the quick guide to retail sales or in the background notes.

8 . Focus on textiles, clothing and footwear stores

In textile, clothing and footwear stores in June 2015 compared with June 2014:

- the quantity bought increased by 6.2%
- the amount spent increased by 4.7%
- average store price decreased by 1.2%

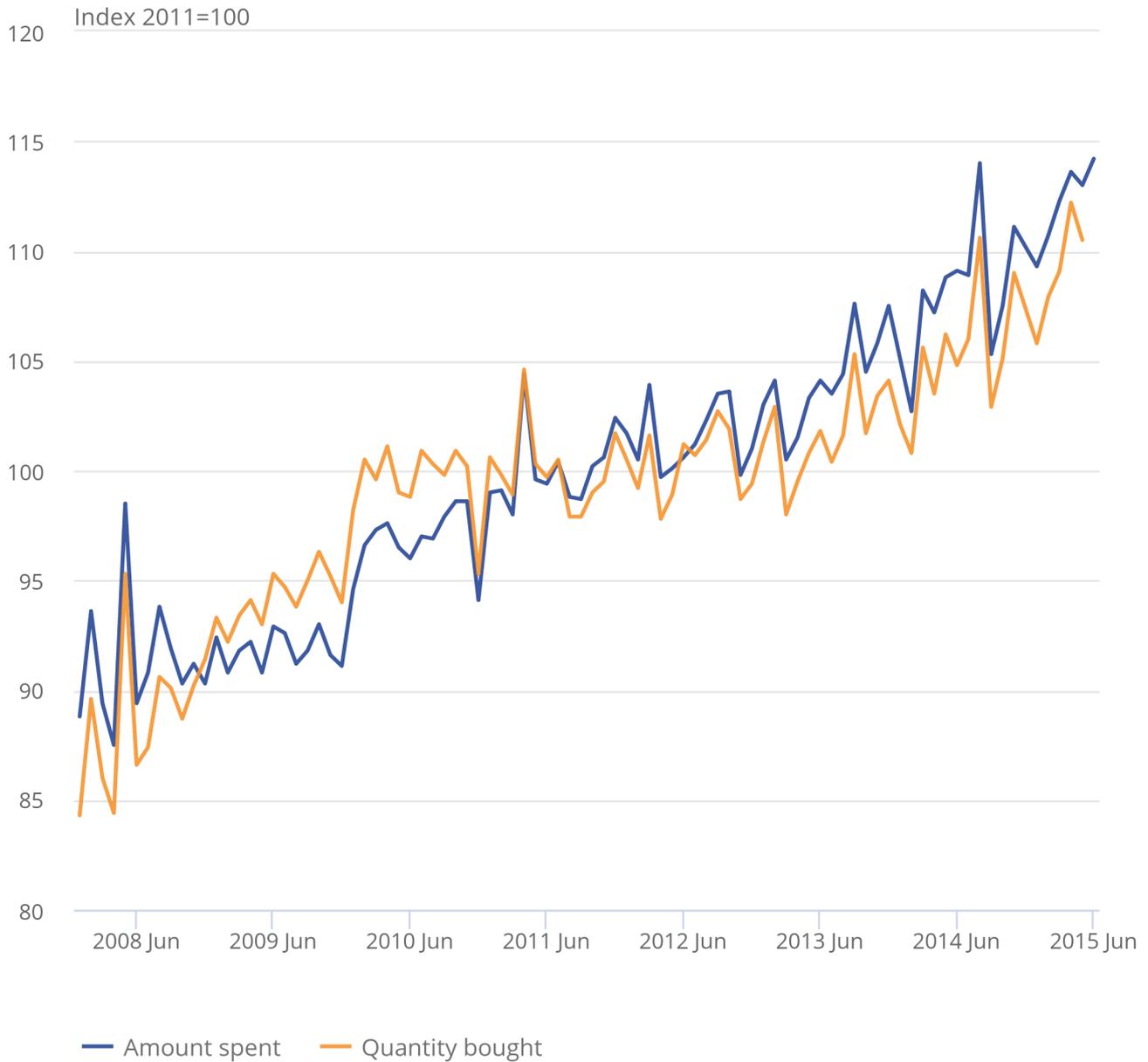
Compared with May 2015:

- the quantity bought increased by 0.8%
- the amount spent increased by 1.1%
- average store price decreased by 0.4%

Figure 4: Quantity bought and amount spent (seasonally adjusted) in the textile, clothing and footwear sector, January 2008 to June 2015

Great Britain

Figure 4: Quantity bought and amount spent (seasonally adjusted) in the textile, clothing and footwear sector, January 2008 to June 2015
Great Britain



Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Figure 4 shows the longer-term picture for the quantity bought and amount spent in textile, clothing and footwear stores. It shows that the performance of this sector is volatile, however, since late 2012 to early 2013, the underlying trend is one of growth after a stagnant period that followed the economic downturn, when disposable income was limited.

It is worth considering some of the factors that could be the cause of some of the volatility seen in the monthly series, for example:

- unseasonal weather
- store price
- in-store sales

Focusing first on unseasonal weather, we saw the effect of this in September 2014 when unseasonably warm weather meant that consumers delayed purchases of autumn and winter clothing and lead to a fall in both the amount spent and quantity bought. In April 2015 we saw the effect of warmer than average weather which resulted in an increase in the amount spent and quantity bought.

Unseasonably wet or cold weather will also impact on sales as we saw in March 2013 when the second coldest March on record resulted in a fall in the amount spent and quantity bought.

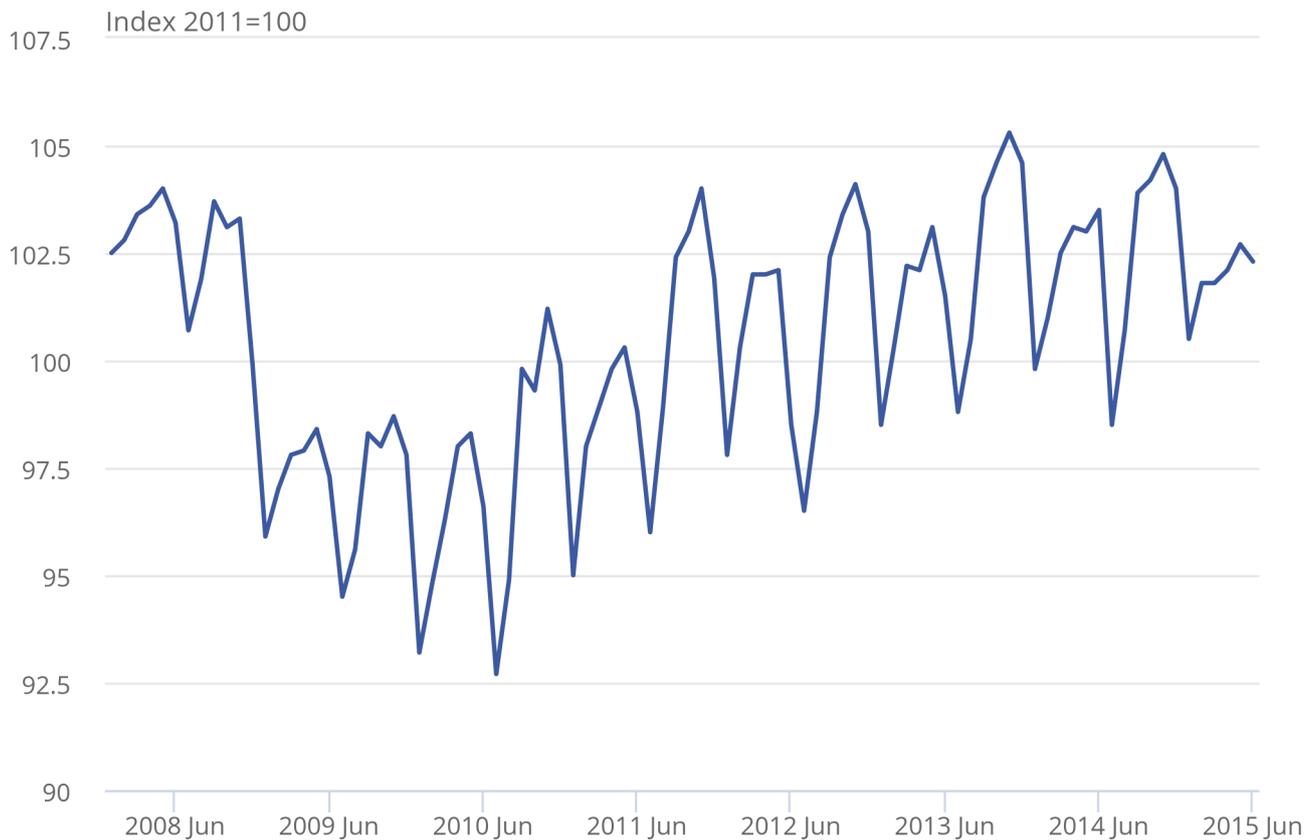
Looking at store pricing and in-store sales together, Figure 5 shows average store prices and clearly expresses a seasonal pattern that coincides with traditional in-store sales periods.

Figure 5: Average store price (non-seasonally adjusted) in textile, clothing and footwear stores, January 2008 to June 2015

Great Britain

Figure 5: Average store price (non-seasonally adjusted) in textile, clothing and footwear stores, January 2008 to June 2015

Great Britain



Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Source: Monthly Business Survey - Retail Sales Inquiry - Office for National Statistics

Generally, prices will fall slightly in December as sales start in preparation for Christmas followed by a larger fall in January as the post-Christmas sales period reaches its peak. The second fall of the year comes in June and July when the summer sales period starts. These sales periods will impact on the quantity bought and amount spent within the sector.

It is also worth noting that high cotton prices in 2010 to 2012 caused average store prices to increase steadily during this period and coupled with low levels of disposable income resulted in the stagnation of the amount spent and quantity bought by consumers.

In June 2014, we did not see falling prices as sales were delayed due to warmer weather, and this may have distorted the year-on-year growth in June 2015 in both amount spent and quantity bought. However, it is also clear from Figure 5 that the prices in store have not increased in January 2015 to June 2015 as much as they have in previous years.

9 . Internet sales in detail

Seasonally adjusted internet sales data are provided within this release. These seasonally adjusted estimates are published in the RSI internet tables and include:

- a seasonally adjusted value index
- year-on-year and month-on-month growth rates

Internet sales are estimates of how much was spent online through retailers across all store types in Great Britain. The reference year is 2011=100.

Main points:

- average weekly spending online in June 2015 was £815.4 million; this was an increase of 11.4% compared with June 2014
- the amount spent online accounted for 12.4% of all retail spending, excluding automotive fuel, compared with 11.3% in June 2014
- the decrease of 14.7% in other stores was the lowest year-on-year fall since March 2012, when it fell by 16.9%
- Table 3 shows the year-on-year growth rates for total internet sales by sector and the proportion of sales made online in each retail sector.

Table 3: Summary of internet statistics for June 2015

| Great Britain | | |
|---------------------------------------|---|---|
| Category | Value Seasonally Adjusted Year-on-year growth (%) | Value Seasonally Adjusted Proportion of total sales made online (%) |
| All retailing | 11.4 | 12.4 |
| All food | 13.3 | 4.2 |
| All non-food | 5.8 | 9.1 |
| Department stores | 13.3 | 10.8 |
| Textile, clothing and footwear stores | 9.8 | 12.2 |
| Household goods stores | 22.0 | 6.8 |
| Other stores | -14.7 | 6.4 |
| Non-store retailing | 15.0 | 73.1 |

Source: Office for National Statistics

10 . Distribution analysis

Table 4 illustrates the mix of experiences among different-sized retailers. It shows the distribution of reported change in sales values of businesses in the RSI sample, ranked by size of business (based on number of employees). It shows that businesses with 40 to 99 employees saw the largest growth in the amount spent, comparing June 2015 with June 2014. Businesses with 100 and over employees experienced growth of 1.4%.

Table 4: Change in reported retail sales values between June 2015 and June 2014

| Great Britain | | |
|---------------------|-------------|----------------------------|
| Number of employees | Weights (%) | Growth since June 2014 (%) |
| 100 and over | 78.8 | 1.4 |
| 40-99 | 2.6 | 19.7 |
| 10-39 | 6.7 | 3.0 |
| 0-9 | 11.9 | -13.0 |

Source: Office for National Statistics

More information on the performance of the retail industry by store type and size can be found in the reference table, Business Analysis. This shows the extent to which individual businesses reported actual changes in their sales between June 2014 and June 2015. The table contains information only from businesses that reported in June 2014 and June 2015. Cells with values less than 10 are suppressed for some classification categories; this is denoted by "c". Note that "large" businesses are defined as those with 100 and over employees and 10 to 99 employees with annual turnover of more than £60 million. "Small and medium" businesses are defined as 0 to 99 employees.

11 . International data

The only international estimate of retail sales available for June 2015 was published by the US Census Bureau on 14 July 2015. In its advanced retail sales estimates for June 2015, the amount spent in the US retail industry, including motor vehicles and parts and food services, decreased by 0.3% from the previous month and increased by 1.4% compared with June 2014. Total sales for the 3 months to June 2015 were up 1.7% from the same period a year ago.

The latest estimates from [Eurostat](#) for May 2015 of the volume of retail trade across the European Union increased by 0.2% in the euro area (EA19) and by 0.3% in the EU28 when compared with April 2015. Compared with May 2014, the retail sales index increased by 2.4% in the EA19 and by 3.0% in the EU28. It should be noted that an accurate comparison cannot be made as Eurostat data are calculated on a 2010 = 100 basis, while GB data are now calculated on a 2011 = 100 basis.

12. Background notes

1. Future improvements

We are currently updating the RSI workplan for the next 12 months, if you have any feedback on improvements we could make to RSI please e-mail comments to retail.sales.enquiries@ons.gsi.gov.uk.

2. What's New

We have implemented new commodity weights in the retail sales data for June 2015.

3. Relevant links

A [subset of the retail sales dataset](#) will be published on our Data Explorer page today. Please note the link will not work until the data are published.

[Overview of internet retail sales in 2014](#)

[Has 2014 been a good year for retailers](#)

[Revisions to the Retail Sales Index](#) details why revisions to the non-seasonally adjusted and seasonally adjusted data can occur. Revisions triangles can be found under section 5 Quality in the background notes.

[International Measures of Retail Sales](#)

[Disclosure control policy](#)

[Comparability of RSI Sales and External Indicators](#)

[RSI Workplan](#)

[Why is the retail sales revisions policy different from the National Accounts revisions policy?](#)

[RSI Quality and Methodology Information paper](#)

[BRC Sales Monitor May 2015](#)

[National Accounts Workplan](#)

[14 ways ONS statistics help you understand the economy - A closer look at the circular flow of income](#)

[Impact of quarterly employment question on the monthly survey response](#)

[Investigating the effect of quarterly collection of employee jobs data on the estimated standard error of change for total turnover on the Monthly Business Survey](#)

[Government Statistical Service \(GSS\) uncertainty guidance](#)

4. Understanding the data

1. [Quick Guide to the Retail Sales Index](#)

2. Interpreting the data

- The Retail Sales Index (RSI) is derived from a monthly survey of 5,000 businesses in Great Britain. The sample represents the whole retail sector and includes the 900 largest retailers and a representative panel of smaller businesses. Collectively all of these businesses cover approximately 90% of the retail industry in terms of turnover
- The RSI covers sales only from businesses classified as retailers according to the [Standard Industrial Classification 2007 \(SIC 2007\)](#), consistent with the international [NACE Rev 2](#) classification of industries. The retail industry is division 47 of the SIC 2007 and retailing is defined as the sale of goods to the general public for household consumption. Consequently, the RSI includes all internet businesses whose primary function is retailing and also covers internet sales by other British retailers, such as online sales by supermarkets, department stores and catalogue companies. The RSI does not cover household spending on services bought from the retail industry as it is designed to only cover goods. Respondents are asked to separate out the non-goods elements of their sales, for example, income from cafes. Consequently, online sales of services by retailers, such as car insurance, would also be excluded
- The monthly survey collects 2 figures from each sampled business: the total turnover for retail sales for the standard trading period, and a separate figure for internet sales. The total turnover will include internet sales. The separation of the internet sales figure allows an estimate relating to internet sales to be calculated

3. Definitions and explanations

- The **value** or current price series records the growth of the value of sales “through the till” before any adjustment for the effects of price changes
- The **volume** or constant price series are created by removing the effect of price changes from the value series. The Consumer Prices Index (CPI) is the main source of the information required on price changes. In brief, a deflator for each type of store (5-digit SIC) is derived by weighting together the CPI components for the appropriate commodities, the weights being based on the pattern of sales in the base year. These deflators are then applied to the value data to produce volume series
- The **implied deflator** or the **estimated price of goods** is derived by dividing the non-seasonally adjusted value and volume data to leave a price relative. In general, this implied price deflator should be quite close to the retail component of the CPI. More information on the implied price deflator can be found in the [Quick Guide to Retail Sales](#)

4. Use of the data

The value and volume measures of retail sales estimates are widely used in private and public sector organisations, both domestically and internationally. For example, private sector institutions such as investment banks, the retail industry itself and retail groups use the data to inform decisions on the current economic performance of the retail industry. These organisations are most interested in a long-term view of the retail sector, taken from the year-on-year growth rates. Public sector institutions use the data to help inform decision and policy making. They tend to be most interested in a snapshot view of the retail industry, which is taken from the month-on-month growth rates.

In a recent survey users found the Retail Sales Index statistics important to their work. It was found crucial for financial modelling of sectors and recognised as a timely indicator for the economy. It has been used as a comparative tool with BRC and other market sources to boost context. Practically, it has been utilised as a comparative tool for business performance and the ability to access internet retail sales has been particularly beneficial to some. On a non-industry level, the RSI was perceived as important for informing political opinions or simply for curiosity by individuals who were not necessarily utilising it as a reference for work purposes.

The Retail Sales Index feeds into estimates of gross domestic product (GDP) in two ways. Firstly it feeds into the services industries when GDP is measured from the output approach. Secondly it is a data source used to measure household final consumption expenditure which feeds into GDP estimates when measured from the expenditure approach.

The data feed into the [first \(or preliminary\) estimate of GDP](#), the [second estimate of GDP](#) and the third estimate which is published in the [Quarterly national accounts](#).

5. Methods

- Information on retail sales methodology is available on our website

1. Composition of the data

Estimates in RSI are based on financial data collected through the monthly Retail Sales Inquiry. Response rates at the time of publication are included for the current month, and the 3 months prior. The response rates for those historical periods are updated to reflect the current level of response, incorporating data from late returns. 2 response rates are included, with 1 percentage for the amount of turnover returned, and the other percentage for the amount of questionnaire forms. Historical response rates are available in the quality information reference table.

Table 5: Overall response rates

Great Britain, March 2015 to June 2015

| Year | Period | Turnover | Questionnaire |
|------|--------|----------|---------------|
| 2015 | June | 92.5 | 60.1 |
| | May | 98.3 | 75.8 |
| | April | 98.2 | 77.5 |
| | March | 99.0 | 77.3 |

Source: Office for National Statistics

2. Seasonal adjustment

Seasonally adjusted estimates are derived by estimating and removing calendar effects (for example, Easter moving between March and May) and seasonal effects (for example, increased spending in January as a result of Christmas) from the non-seasonally adjusted (NSA) estimates. Seasonal adjustment is performed each month and reviewed each year, using the standard, widely used software, X-13-ARIMA-SEATS. Before adjusting for seasonality, prior adjustments are made for calendar effects (where statistically significant), such as returns that do not comply with the standard trading period (see section Methods, Calendar effects), bank holidays, Easter and the day of the week on which Christmas occurs.

The data collected from the retail sales survey estimate the amount of money taken through the tills of retailers; these are non-seasonally adjusted data. These data consist of 3 components:

- trend which describes long-term or underlying movements within the data
- seasonal which describes regular variation around the trend, that is, peaks and troughs within the time series (the most obvious is the peak in January and the fall in February)

- irregular or “noise”, for example, deeper falls within the non-seasonally adjusted series due to bad weather impacting on retail sales

To ease interpretation of the underlying movements in the data, the seasonal adjustment process estimates and removes the seasonal component. It leaves a seasonally adjusted time series made up of the trend and irregular components.

In the non-seasonally adjusted RSI we see large rises in January each year and a fall in the following February, but these are not evident in the seasonally adjusted index. This peak in January is larger than the subsequent fall but the trend and irregular components in both months are likely to be similar. This means that the movements in the unadjusted series are almost completely as a result of the seasonal pattern.

3. Calendar effects

The calculation of the RSI has an adjustment to compensate for calendar effects that come from the differences in reporting periods. The reporting period for June 2015 was 31 May 2015 to 4 July 2015, compared with 1 June 2014 to 5 July 2014 in the previous year. Table 6 shows the differences between the calendar and seasonally adjusted estimates.

Table 6: Retail sales, calendar effects

| Great Britain | | |
|---------------------|--------------------------------|--------|
| | Year-on-year percentage change | |
| | Value | Volume |
| Calendar adjusted | 1.1 | 3.7 |
| Seasonally adjusted | 0.9 | 4.0 |

Source: Office for National Statistics

6. Quality

1. Basic quality information

- The standard reporting periods can change over time due to the movement of the calendar. Every 5 or 6 years the standard reporting periods are brought back into line by adding an extra week. For example, January is typically a 4 week standard period but January 1986, 1991, 1996, 2002, 2008 and 2014 were all 5 week standard periods. The non-seasonally adjusted estimates will still contain calendar effects. If the non-seasonally adjusted estimates are used for analysis, this can lead to a distortion depending on the timing of the standard reporting period in relation to the calendar, previous reporting periods and how trading activity changes over time
- The non-seasonally adjusted series contain elements relating to the impact of the standard reporting period, moving seasonality and trading day activity. When making comparisons users should focus on the seasonally adjusted estimates as these have the systematic calendar-related component removed. Due to the volatility of the monthly data, growth rates should be calculated using an average of the latest 3 months of the seasonally adjusted estimates
- When interpreting the data, consideration should be given to the relative weighted contributions of the sectors in the all retailing series. Based on SIC 2007 data, total retail sales consists of: predominantly food stores 40.9%, predominantly non-food stores 42.0%, non-store retailing 7.0% and automotive fuel 10.1%

2. Standard error

- Standard errors determine the spread of possible movements and are a means of assessing the accuracy of the non-seasonally adjusted month-on-month and year-on-year estimates of all retail sales volumes. The lower the standard error, the more confident we can be that the estimate is close to the true value for the retail population

- The standard error of year-on-year movement for 'All Retailing' is 1.0%. It has remained at 1.0% since May 2015. It was lower at 0.9% from June 2014 onwards with the only other decrease in May 2014, at 0.8%. Before this period, the year-on-year movements mostly remained at 0.9% with the only other fluctuations occurring in August 2013 and September 2013, where there was a standard error of 1.0%
- Table 7 shows the year-on-year movement for the non-seasonally adjusted chained volume measure alongside the standard error, across the published sector breakdowns for June 2014 and June 2015. The differences between June 2014 and June 2015 highlight that the standard error has increased the most in 'Non-store retailing' and 'Automotive fuel'. The greatest decreases are for 'Textiles, clothing and footwear stores'

- More information on standard errors can be found in the 'Retail Sales Quality Tables' (164.5 Kb Excel sheet) reference tables, which are part of this release

Table 7: Year-on-year estimates and standard errors (chained volume measures, non-seasonally adjusted) June 2014 and June 2015

Great Britain

| Sector | June 2014 | | June 2015 | |
|---------------------------------------|---|---|---|---|
| | 12-month movement June 2014 (percentage change) | Standard error of 12-month movement, median (percentage points) | 12-month movement June 2015 (percentage change) | Standard error of 12-month movement, median (percentage points) |
| All retailing | 3.4 | 0.9 | 3.9 | 1.0 |
| Predominantly food stores | 0.8 | 0.6 | 1.9 | 0.6 |
| Predominantly non-food stores | 5.1 | 1.1 | 4.4 | 1.1 |
| Non-specialised stores | 3.4 | 1.6 | 7.0 | 1.7 |
| Textile, clothing and footwear stores | 3.2 | 1.4 | 6.2 | 1.2 |
| Household goods stores | 4.8 | 1.6 | 7.6 | 1.6 |
| Other stores | 8.0 | 2.7 | -0.6 | 2.8 |
| Non-store retailing | 13.0 | 4.7 | 14.7 | 5.2 |
| Automotive fuel | 1.8 | 3.7 | 2.4 | 4.0 |

Source: Office for National Statistics

3. Summary quality report

The [RSI Quality and Methodology Information paper](#) describes in detail the intended uses of the statistics in this bulletin, their general quality and the methods used to produce them.

4. Revisions triangles

Revisions to data provide one indication of the reliability of key indicators. Table 8 shows summary information on the size and direction of the revisions made to the volume data covering a 5 year period. Note that changes in definition and classification mean that the revision analysis is not conceptually the same over time.

Table 8: All retailing, volume, seasonally adjusted, revisions triangles summary statistics, June 2015

Volume seasonally adjusted, Great Britain

| | Growth in latest period (%) | Revisions between first publication and estimates twelve months later (percentage points) | |
|---|-----------------------------|---|---|
| | | Average over the last five years (mean revision) | Average over the last five years without regard to sign (average absolute revision) |
| Latest 3 months compared with previous 3 months | 0.7 | -0.20 | 0.29 |
| Latest month compared with previous month | -0.2 | -0.12 | 0.36 |

Source: Office for National Statistics

7. Publication policy

Details of the policy governing the release of new data are available from our Media Relations Office. Also available is a list of the organisations given [pre-publication access](#) to the contents of this bulletin.

Accessing data

The complete run of data in the tables of this statistical bulletin is available to view and download in electronic format using our Time Series Data service. Users can download the complete bulletin in a choice of zipped formats, or view and download their own sections of individual series. The [Time Series Data can be accessed on our website](#).

Alternatively, for low-cost tailored data call 0845 601 3034 or email info@ons.gsi.gov.uk

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8. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk