

Retail Sales, December 2013



Coverage: **GB**

Date: **17 January 2014**

Geographical Area: **GB**

Theme: **Economy**

Key Points

- Year-on-year estimates of the quantity bought in the retail industry showed strong growth in December 2013, increasing by 5.3% compared with December 2012. Comparing the 12 months of 2013 with the 12 months of 2012 the quantity bought in 2013 increased by 1.6% compared with 2012.
- Non-seasonally adjusted data show that small stores experienced higher growth year-on-year than large stores with the amount spent in small stores increasing by 8.1% compared with 2.6% in large stores. Non-food stores provided the main contribution to the growth in the amount spent at small stores.
- The underlying pattern in the data as suggested by the three month-on-three month movement show much weaker growth (0.4%) than suggested by the year-on-year increase (5.3%). Contractions in the quantity bought in food stores and petrol stations continued to offset growth in the quantity bought in non-food stores and non-store retailing.
- On the month the picture is one of strong growth with the quantity bought increasing by 2.6%. All store types saw an increase in the quantity bought but perhaps most notable is the record month-on-month increase in the quantity bought at department stores of 8.7%.
- In December 2013, the amount spent in the retail industry increased by 6.1% compared with December 2012 and by 2.6% compared with November 2013. Non-seasonally adjusted data show that the average weekly spend in the retail industry in December 2013 was £8.8 billion compared with £8.5 billion in December 2012 and £7.5 billion in November 2013.
- Internet sales, which are seasonally adjusted for the first time in this release, increased by 11.8% in December 2013 compared with December 2012 and by 1.8% compared with November 2013.
- Non-seasonally adjusted data show that the proportion of sales made online decreased by 0.2 percentage points to 11.8% of all retail sales (excluding automotive fuel).

Additional Information

This bulletin presents estimates of the quantity bought (volume) and amount spent (value) in the retail industry for the period 24 November 2013 to 28 December 2013. Unless otherwise stated, the estimates in this release are seasonally adjusted.

Users are reminded that the figures contained within this release are estimates based on a monthly survey of 5,000 retailers, including all large retailers employing 100 people or more. The timeliness of these retail sales estimates, which are published just two 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.

Key Figures

Table 1: All Retailing, December 2013 (seasonally adjusted percentage change)

	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
Amount spent (Value)	6.1	3.9	2.6	0.4
Quantity bought (Volume)	5.3	3.2	2.6	0.4
Value excluding automotive fuel	7.2	4.9	2.8	1.0
Volume excluding automotive fuel	6.1	3.7	2.8	0.8

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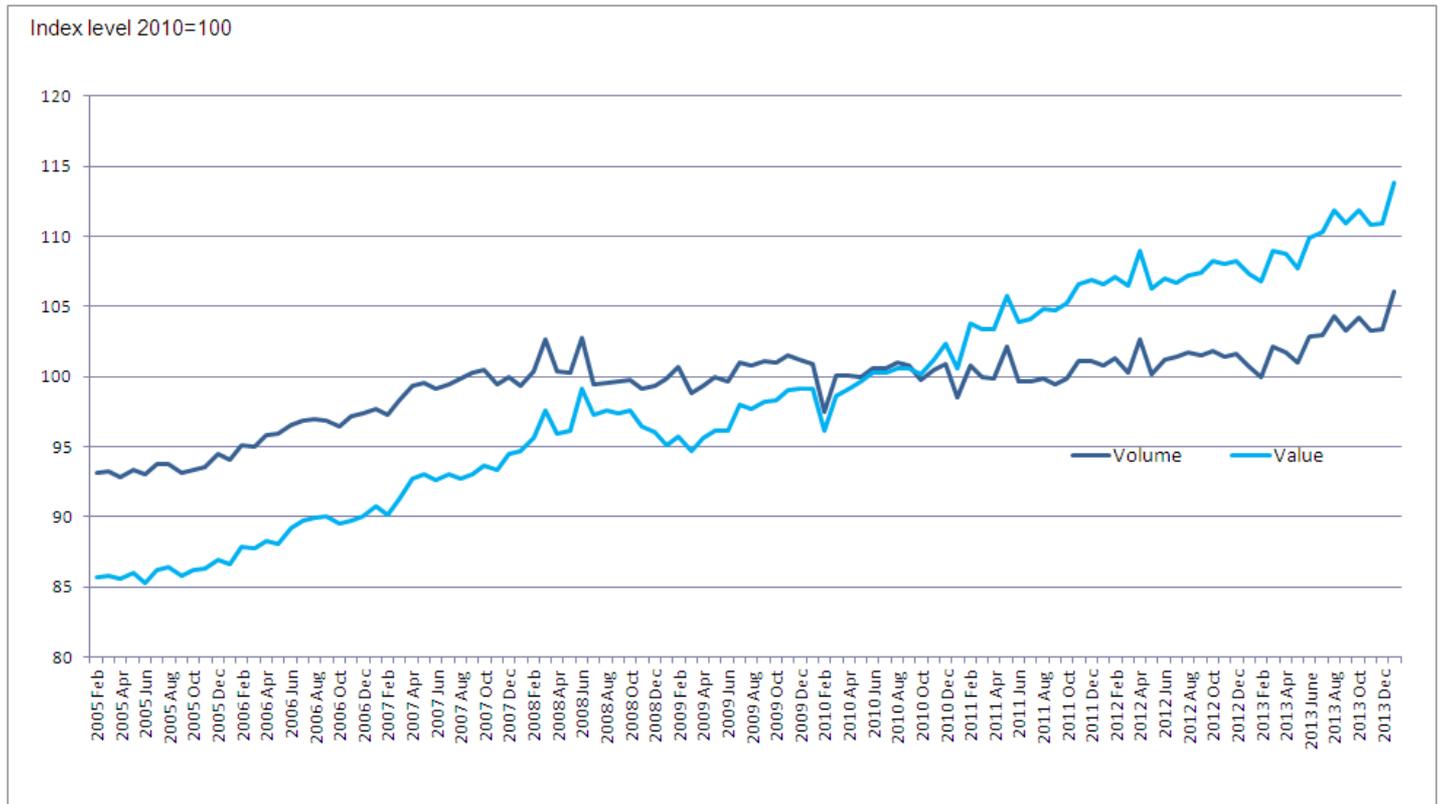
At a Glance

In December 2013, the quantity bought in the retail industry (volume) increased by 5.3% compared with December 2012. The amount spent (value) increased by 6.1%. Since December 2012, non-seasonally adjusted data show that the prices of goods sold in the retail industry (as measured by the implied price deflator) increased by 0.5%. More information on how the implied price deflator is calculated can be found in section 3 of the background notes.

Economic Context

To enable a comparison of change, figure 1 show the quantity of goods bought in the retail industry (all retailing sales volumes) and the amount spent (all retailing sales values), as indices referenced to 2010.

Figure 1: All retailing seasonally adjusted sales volumes and values



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Both the amount spent and amount bought grew steadily up until the onset of the 2008/09 economic downturn, when the quantity bought remained broadly flat until 2012 while amount spent continued to grow and growth improved noticeably in 2013. Growth in December for both series was particularly high, but this forms part of an overall upward trend in 2013, similar to that experienced prior to the 2008/09 economic downturn. This improvement has been based with all sectors growing throughout 2013.

Throughout 2013, the rate of store price inflation as measured by the implied price deflator has slowed and the quantity of goods bought has increased at a similar rate to the amount spent. The quantity bought in 2013 was 1.6% higher than in 2012 while the amount spent was 2.6% higher.

Retail sales data are coherent with the improving performance of the UK economy in 2013 – gross domestic product (GDP) grew by 1.6% during the first three quarters of the year, while the most recent Quarterly National Accounts showed that household spending continued to increase, while the rate of inflation fell to 2.0% in the year to December.

Contributions to Growth

The retail industry is divided into four retail sectors:

- Predominantly food stores (e.g. supermarkets, specialist food stores and sales of alcoholic drinks and tobacco);
- Predominantly non-food stores (e.g. non-specialised stores, such as department stores, textiles, clothing & footwear, household goods and other stores);
- Non-store retailing (e.g. mail order, catalogues and market stalls); and
- Stores selling automotive fuel (petrol stations).

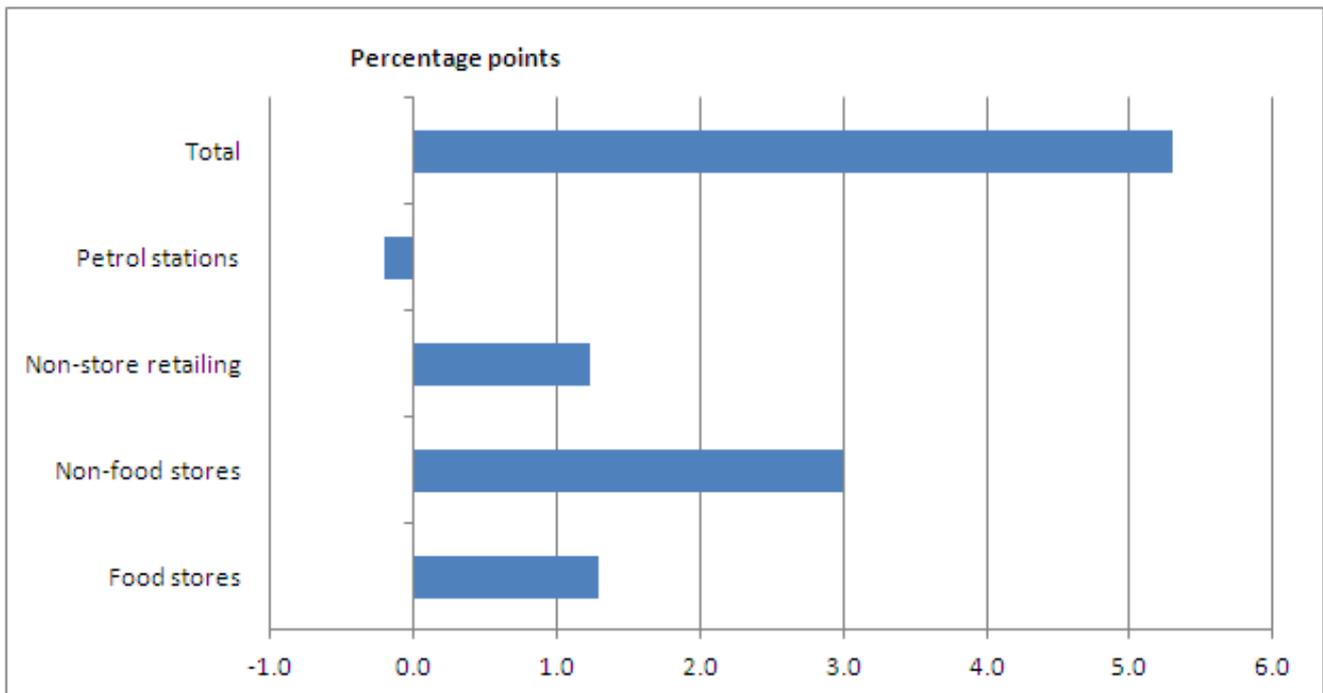
In December 2013, for every pound spent in the retail industry:

- 42 pence was spent in food stores;
- 41 pence in non-food stores;
- 6 pence in non-store retailing; and
- 11 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 retail between December 2012 and December 2013.

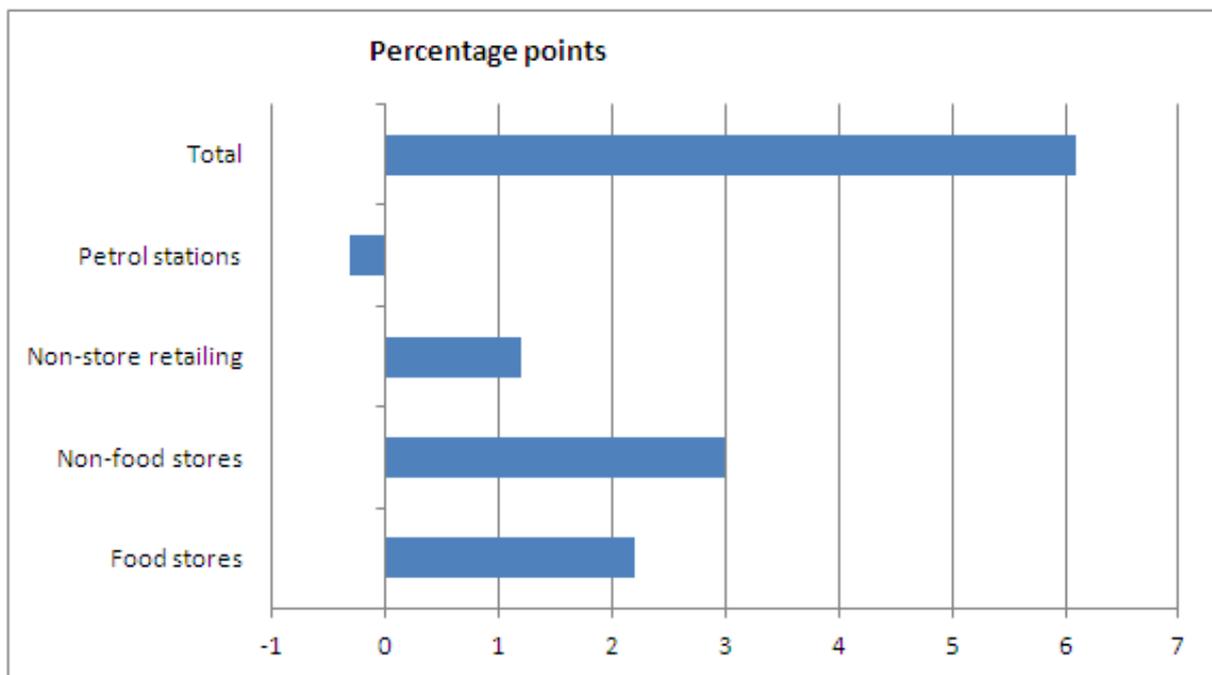
Figure 2: Contributions to year-on-year value growth from the four main retail sectors



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In December 2013, three out of four of the main sectors, non-food stores, food stores and non-store retailing, contributed to the increase in the quantity bought (volume) with the largest contribution from non-food stores sector.

Figure 3: Contributions to year-on-year value growth from the four main retail sectors**Download chart**[XLS](#) [XLS format](#)

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In December 2013, three out of four of the main sectors, non-food stores, food stores and non-store retailing, contributed to the increase in amount spent (value). The largest contribution came from the non-food stores sector.

Distribution Analysis**Performance of large and small stores**

Comparing the amount spent in December 2013 with December 2012, non-seasonally adjusted data show that small stores fared better than large stores with the amount spent in small stores increasing by 8.1% and large stores by 2.6%.

Table 2 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 40-99 employees saw the largest growth in the amount spent comparing December 2012 with December 2013, while large stores experienced weaker but still moderate growth in the amount spent at 2.6%.

Table 2: Changes in reported retail sales values between December 2012 and December 2013

Number of employees	Weights (%)	Growth since December 2012 (%)
100+	81.0	2.6
40-99	2.4	34.8
10-39	5.8	4.7
0-9	10.8	8.2

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Which type of store fared best?

Table 3 has been compiled using data from the [RSI Data tables, table 4 \(2.1 Mb Excel sheet\)](#). It shows the value of sales by store size and store type.

Table 3: Amount spent year-on-year change (NSA) by size and type of store

	All	Large	Small
All	3.6	2.6	8.1
Food stores	2.2	2.5	0
Non-food stores	4.4	3.3	8.9
Non-specialised stores	7.9	8.8	-4.2
Textile, clothing and food stores	2.3	2.9	-3.4
Household goods stores	-1.4	-5.8	12.4
Other stores	7.4	4.1	12.6
Non-store retail	14.1	8.9	25.8
Automotive fuel	-2.7	NA	NA

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The table shows that not all small store types saw an increase in the amount spent but the main contributions to the growth in the amount spent in small stores came from non-food stores, particularly household goods stores and other stores (the reference table [RSI Index Categories and their weights \(38 Kb Excel sheet\)](#) provides a full description of store types within this group) and non-store retailing.

More information on the performance of the retail industry by store type and size can be found in the reference table, [Business Analysis \(25.5 Kb Excel sheet\)](#), which shows the extent to which individual businesses reported actual changes in their sales between December 2012 and December 2013. The table contains information only from businesses that reported in December 2012 and December 2013. 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+ employees and 10–99 employees with annual turnover of more than £60 million, while 'small and medium' is defined as 0–99 employees.

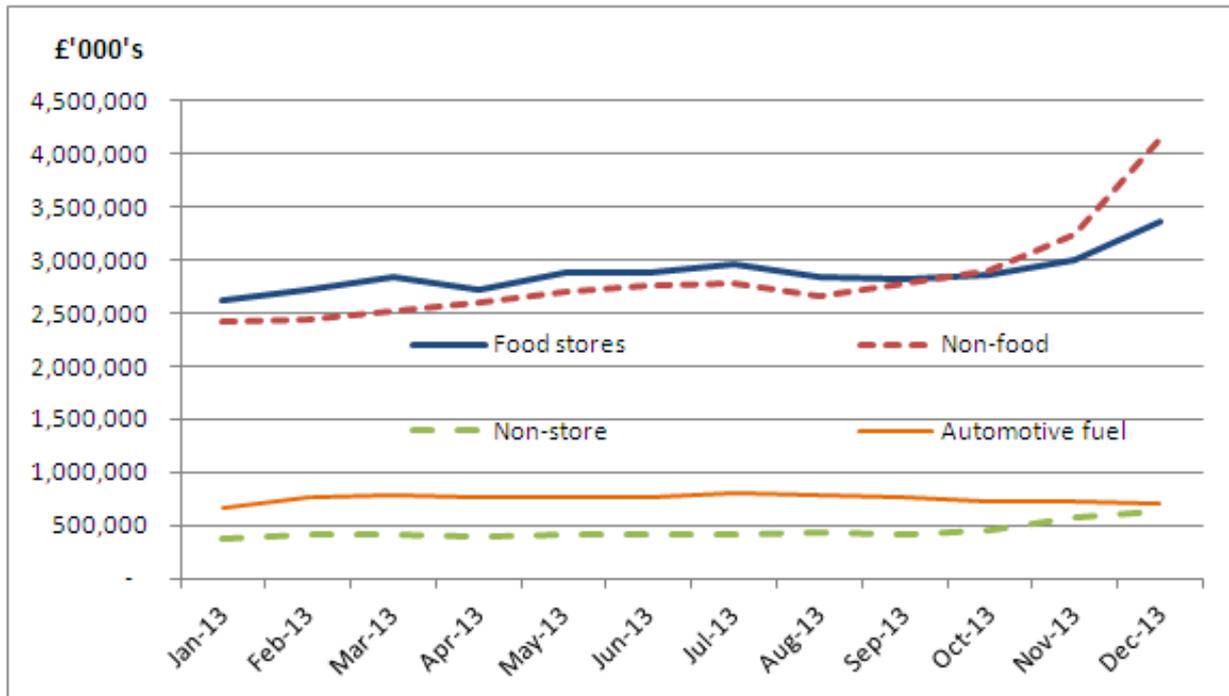
Amount Spent in the Retail Industry

In the December 2013 five week reporting period, the amount spent in the retail industry was £44.1 billion (non-seasonally adjusted). This compares with £30.1 billion in the four weeks of November 2013 and £42.6 billion in the five weeks of December 2012.

This equates to an average weekly spend of £8.8 billion in December 2013, £7.5 billion in November 2013 and £8.5 billion in December 2012.

Figure 4 shows the average weekly spend throughout 2013. It shows on average more was spent in a week at food stores than any other store type up until October 2013 when more was spent in non-food stores than any other store type.

Figure 4: average weekly spend (NSA) in the retail industry by store type in 2013



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Monetary data are available in the reference table [Retail Sales, Data in Pounds \(£ thousands\). \(915 Kb Excel sheet\)](#)

Sector Summary

Key Points

- The increase in the quantity bought in non-specialised stores of 11.7% is the highest year-on-year growth since January 2000.
- The quantity bought in other stores increased by 11.1% while the amount spent increased by 10.0%. Both are the highest year-on-year growth rates since January 2011.
- Upwards pressure to average store prices again came from predominantly food stores and clothing stores. All of the other main store groupings saw average prices fall in comparison with November 2013.

Table 4: Sector Summary, December 2013

	Percentage change over 12 months			Average weekly sales (£ billion)
	Quantity bought (volume)	Amount spent (value)	Average store price	
Predominantly food stores¹	2.9	5.3	2.3	3.3
Predominantly non-food stores²	7.0	7.1	-0.3	4.1
Non-specialised stores³	11.7	11.0	-0.8	1.0
Textiles, clothing & footwear stores	4.0	5.9	1.5	1.2
Household goods stores	0.4	0.6	-0.6	0.7
Other stores	11.1	10.0	-1.3	1.3
Non-store retailing	21.6	21.7	-0.1	0.6
Fuel stores	-1.7	-2.8	-1.0	0.7
Total	5.3	6.1	0.5	8.8

Table notes:

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

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Internet Sales**Internet sales in detail**

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

- A seasonally adjusted value index; and
- Year-on-year and month-on-month growth rates.

ONS are currently investigating whether it is possible to seasonally adjust the proportion of sales made online. More information on the seasonal adjustment of these estimates can be found in section 4 of the background notes or in the quick guide to Internet sales.

Internet sales are estimates of how much was spent online through retailers across all store types in Great Britain. The reference year is 2010=100.

Key Points

- Average weekly spending online in December 2013 was £675.4 million. This was an increase of 11.8% compared with December 2012.
- The amount spent online accounted for 11.8% of all retail spending excluding automotive fuel.
- The online spend in department stores was estimated at 35.1% reflecting feedback from retailers that suggested that investment in their Internet sites has boosted sales but at the same time detracted from sales in store.

Table 5 shows the year-on-year growth rates for total Internet sales by sector and the proportion of sales that made online in each retail sector.

Table 5: Summary of Internet Statistics for December 2013

Category	Year on year growth % (Value SA)	Proportion of total sales made online (NSA)
All retailing (excl. automotive fuel)	11.8	11.8
All food	12.6	3.5
All non-food	14.8	9.5
Department stores	35.1	11.5
Textile, clothing & footwear stores	9.1	10.9
Household goods stores	-0.9	6.3
Other stores	15.1	8.2
Non-store retailing	9.2	71.7

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Background notes

1. Future improvements

We are reviewing the seasonal adjustments for the proportion of sales made online, a further update on progress will be provided next month.

2. What's New

We have included seasonally adjusted estimates of the value of Internet sales for the first time this month. These show seasonally adjusted year-on-year growth rates along with estimates of the month-on-month growth rates. These statistics are published in the reference tables which contain all Internet sales statistics available.

A short story questioning the [impact of weather on retail sales](#) was published on 15 January.

3. Understanding the data

[Quick Guide to the Retail Sales Index \(116.9 Kb Pdf\)](#)

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 per cent 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), an internationally consistent 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 cafeterias. Consequently, online sales of services by retailers, such as car insurance, would also be excluded.
- The monthly survey collects two figures from each sampled business: the total turnover for retail sales for the standard trading period, and a separate figure for sales made over the Internet. The total turnover will include Internet sales. The separation of the Internet sales figure allows an estimate relating to Internet sales to be calculated separately.

Definitions and explanations

- The **value** or current price series records the growth since the base period (currently 2010) of the value of sales 'through the till' before any adjustment for the effects of price changes.
- The **volume** or constant price series are constructed 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 \(116.9 Kb Pdf\)](#).

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 that can be obtained from year-on-year growth rates. Public sector institutions use the data to assist in informed decision and policy making and tend to be most interested in a snapshot view of the retail industry, which is taken from the month-on-month growth rates.

4. Methods

Information on retail sales methodology is available in [Retail Sales Methodology and Articles](#).

1. Composition of the data

Estimates in this statistical bulletin are based on financial data collected through the monthly Retail Sales Inquiry. The response rates for the current month reflect the response rates at the time of publication. Late returns for the previous month's data are included in the results each month. Response rates for historical periods are updated to reflect the current level of response at the time of this publication.

Table 6: Overall Response Rates

				Overall response rates (%)	
		Period	Turnover	Questionnaire	
2013		Dec	91.2	60.5	
		Nov	98.4	74.7	
		Oct	98.9	79.1	
		Sept	98.8	80.6	

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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 December 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-12-ARIMA. 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 three 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 in this case being the peak in December and the fall in January
- **irregular** or 'noise', for example deeper falls within the non-seasonally adjusted series due to harsh 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 to leave a seasonally adjusted time series consisting of the trend and irregular components.

In the non-seasonally adjusted RSI we see large rises in December each year and a fall in the following January, but these are not evident in the seasonally adjusted index. This peak in December is larger than the subsequent fall but the trend and irregular components in both months are likely to be similar, meaning 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 arise from the differences in the reporting periods. The reporting period for December 2013 was 24 November 2013 to 28 December 2013, compared with 25 November to 29 December the previous year. Table 7 shows the differences between the calendar and seasonally adjusted estimates.

Table 7: Retail Sales, Calendar Effects

Year on year percentage change		
	Value	Volume
Calendar adjusted	-6.0	3.4
Seasonally adjusted	6.1	5.3

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5. Quality**1. Basic quality information**

- The standard reporting periods can change over time due to the movement of the calendar. Every five or six years the standard reporting periods are brought back into line by adding an extra week. For example, January is typically a four-week standard period but January 1986, 1991, 1996, 2002 and 2008 were all five-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 it is recommended that users focus on the seasonally adjusted estimates as these have the systematic calendar related component removed. Due to the volatility of the monthly data, it is recommended that growth rates are calculated using an average of the latest three months of the seasonally adjusted estimates.
- When interpreting the data, consideration should be given to the relative weighted contributions of the sectors within the all retailing series. Based on SIC 2007 data, total retail sales consists of: predominantly food stores 41.5%, predominantly non-food stores 41.3%, non-store retailing 5.7% and automotive fuel 11.5%.

2. Standard errors

Standard errors of non-seasonally adjusted chained volume index movements have been developed for RSI to determine the spread of possible movements and 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 one can be that the estimate is close to the true value for the retail population.

- The standard error for year-on-year growth in all retail sales (non-seasonally adjusted) volumes is 0.9%. This means that the year-on-year growth rate for all retail sales (non-seasonally adjusted) volumes falls within the range 3.1 ± 1.8 percentage points with a probability of 95%.
- The standard error for month-on-month growth in all retail sales (non-seasonally adjusted) volumes is 0.5%. This means that the month-on-month growth rate for all retail sales (non-seasonally adjusted) volumes falls within the range 17.7 ± 1.0 percentage points with a probability of 95%.

The papers '[Measuring the accuracy of the Retail Sales Index](#)' (1.04 Mb Pdf), written by Winton, J and Ralph, J (2011) and '[Updated accuracy measures for the Retail Sales Index](#)' (29.6 Kb Pdf)

Sanderson, R (2013) reports on the calculation of standard errors for month-on-month and year-on-year growth rates in the RSI as well as providing an overview of standard errors and how they can be interpreted.

3. Summary quality report

A [Summary Quality Report \(93.5 Kb Pdf\)](#) for the RSI.

This report describes, in detail the intended uses of the statistics presented in this publication, 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. The table below shows summary information on the size and direction of the revisions made to the volume data covering a five-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, December 2013

Volume seasonally adjusted

	Growth in latest period (per cent)	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 three months compared with previous three months	0.4	-0.27	0.36
Latest month compared with previous month	2.3	-0.13	0.40

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A spreadsheet giving these estimates and the calculations behind the averages in the table is available on the ONS website.

6. Publication Policy

Details of the policy governing the release of new data are available from the 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 the ONS 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](#) are available.

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

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