

# Information paper

## Summary Quality Report for Retail Sales

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### Introduction

This report is part of a rolling programme of quality reports being introduced by the Office for National Statistics (ONS). The full programme of work being carried out on [statistical quality](#)<sup>1</sup> is available on the National Statistics website.

The Retail Sales estimates are a key economic indicator and one of the earliest short-term measures of economic activity. It is used to estimate consumer spending on retail goods and the output of the retail sector, both of which are used in the compilation of the National Accounts. It is the only official short-term measure of retail sales data within Great Britain.

### Summary of Quality

#### Relevance

*The degree to which the statistical product meets user needs for both coverage and content.*

The Retail Sales Inquiry surveys approximately 5000 retail businesses each month. The sample used is representative of all businesses across the sector and consists of a wide range of small, medium and large retailers in Great Britain. Large retailers are defined as having 100+ employment and also 10-99 employment with more than £40 million turnover each year, while small to medium retailers are defined as having 0-99 employment. There are approximately 900 large businesses in the survey, and all large businesses are included in the RSI each month. In addition, approximately 4100 small and medium businesses are included in the survey on a sampled basis each month. Collectively these businesses cover approximately 75 per cent of the retail sector in terms of turnover.

The main monthly output measures include average weekly value and volume estimates, in both seasonally adjusted and non-seasonally adjusted forms. The value estimates reflect the average total turnover that businesses have collected

over a standard reporting period, while the volume estimates are calculated by taking the value estimates and adjusting to remove the impact of price changes. The value and volume measures of retail sales estimates are widely used in private and public sector institutions, particularly by the Bank of England and Her Majesty's Treasury, to assist in informed decision and policy making.

Retail Sales estimates are also used within the compilation of the National Accounts. As a requirement for the Statistical Offices of the European Community (Eurostat), information on production and current price sales are provided to Eurostat.

An experimental Internet estimate is published each month to illustrate the magnitude of this type of activity within the retail sector.

## Accuracy

*The closeness between an estimated result and the (unknown) true value.*

[Revisions](#)<sup>5</sup> and sampling variations are a consequence of the trade-off between timeliness and accuracy. All sample survey estimates are subject to statistical error which refers to the uncertainty in any process or calculation that uses sampling, estimation or modelling. Retail Sales estimates for the most recent month are subject to revision due to:

- late responses to the monthly retail sales inquiry;
- revisions to seasonal adjustment factors which are re-estimated every month;
- changes from the annual seasonal adjustment parameter review; and
- annual updating of the business register that forms the basis of the sample for the retail sales inquiry (usually occurring in January and having most effect on the results published in February).

Revisions to data provide one indication of the reliability of key indicators. A summary table is included in the Statistical Bulletin each month and gives information on the size and direction of the revisions which have been made to the volume data covering a five year period. A [spreadsheet](#)<sup>12</sup> giving these estimates and the calculations behind the averages in the table is also available.

There are stringent monthly quality assurance procedures in place to understand and explain movements in respondent and higher level aggregated data. Tables of data and revisions to data, showing index numbers and growth rates, help to identify unusual behaviour.

Methodological research is currently ongoing to calculate an estimate of the standard errors for the Retail Sales estimates.

## Timeliness and Punctuality

*Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.*

The [National Statistics Release Calendar](#)<sup>3</sup> and [publication hub](#)<sup>13</sup> is available online and provides twelve months advanced notice of releases and information relating to the most recent release. Publication dates are fixed in advance and have never been delayed or missed.

The Retail Sales estimates are usually published 15 to 20 working days after the end of the reporting period. It is one of the most timely official indicators for retail statistics in the world. The Retail Sales estimates are published on the ONS website as a [Statistical Bulletin](#)<sup>2</sup>.

As the Retail Sales estimates are a short-term indicator, users expect the estimates to be available as soon as possible after the end of the reporting period to which they refer. As a result revisions are an inevitable consequence of the trade off between timeliness and accuracy.

## Accessibility and Clarity

*Accessibility is the ease with which users are able to access the data, also reflecting the format(s) in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.*

The RSI Statistical Bulletin conforms to the [Code of Practice for Official Statistics](#)<sup>4</sup>, [release practices protocol](#).

The Retail Sales Statistical Bulletin, detailed statistical data monitor (SDM28) and time series datasets are available for download after 9.30am on the day of publication. Supplementary material is also published to provide additional information when appropriate. Time series datasets are available to download free of charge. ONS policy allows a list of agreed officials to have access to data at a minimum of 24 hours before publication.

For queries on the Retail Sales estimates contact the Retail Sales branch by email: [retail.sales.enquiries@ons.gov.uk](mailto:retail.sales.enquiries@ons.gov.uk) or by telephone, 01633 455602.

## Comparability

*The degree to which data can be compared over time and domain.*

The time series published are comparable over time, with monthly estimates available back to 1988. Where possible, changes to methodology are applied to the whole series to ensure comparability is maintained over time. For example, the [introduction of chain-linking](#)<sup>10</sup> and other method changes in April 2009 resulted in

revisions to historical data. The estimates were updated to ensure comparability over time.

The published volume estimates are calculated by removing the impact of the price from the value estimates. This provides a comparable series over time without the impact of changes in price.

## Coherence

*The degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.*

Household final consumption expenditure estimates are also published by the ONS and are the largest single component of the expenditure measure of GDP, accounting for about 60 per cent of spending. The monthly estimate of retail sales is often seen as an early indicator of consumer spending but direct comparisons with the Household final consumption expenditure estimates need to be made with caution. For example, Retail sales only account for a [subset of total consumer spending](#)<sup>9</sup>, as only about a third of household consumer expenditure is on goods sold by businesses classified as retailers. In general, the retail sales estimates contribute approximately 30 per cent of Household Final Consumption Expenditure, 12 per cent of the Index of Services and 5 per cent of the output measure of Gross Domestic Product.

Data from the ONS Annual Business Inquiry (ABI) can be used as a consistency check when it becomes available. In practice, the ABI covers the United Kingdom while the Retail Sales covers Great Britain, so this needs to be taken into account in any comparison.

Alternative non-official estimates of the retail sector are also available. Careful [comparison between non-official and official estimates](#)<sup>8</sup> needs to be made due to the considerable differences in scope and methods.

## Summary of methods used to compile the output

The Retail Sales estimates are derived using information from a comprehensive and broad based survey of around 5000 different types of retail businesses. Each month there are approximately 900 large businesses (defined with employment over 100, or between 10 and 99 employment and over 40 million pounds annual turnover), and 4100 small and medium businesses (defined with employment between 0 and 99) in the survey. All large businesses are included each month, while the small and medium businesses are included on a rotating basis

The main output measures include value and volume estimates, in both seasonally adjusted and non-seasonally adjusted forms. The value estimates reflect the total turnover that businesses have collected over a standard period, while the volume estimates are calculated by taking the value estimates and adjusting to remove the impact of price changes.

The methods used within the calculation of the Retail Sales estimates include: indices which are referenced to 2005 equal to 100, use of annual chain-linking for the calculation of the volume estimates to ensure changes in prices are taken into account, use of commodity indices from the Consumer Prices Index for the calculation of RSI industry deflators, and seasonal adjustment at an appropriate level of industry detail.

The Retail Sales production team also uses a variety of standard procedures, such as monitoring individual business returns, and analysing movements, to ensure that the published estimates are of high quality. The procedures are used to understand and explain movements in the both the respondent and aggregate data.

## References

Title of Reference		Website Location
1	Statistical Quality Programme	<a href="http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/index.html">http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/index.html</a>
2	Retail Sales Homepage	<a href="http://www.statistics.gov.uk/StatBase/Product.asp?vLnk=870">http://www.statistics.gov.uk/StatBase/Product.asp?vLnk=870</a>
3	National Statistics Release Calendar	<a href="http://www.statistics.gov.uk/ReleaseCalendar/findreleases.asp?">http://www.statistics.gov.uk/ReleaseCalendar/findreleases.asp?</a>
4	Publication hub	<a href="http://www.statistics.gov.uk/hub/index.html">http://www.statistics.gov.uk/hub/index.html</a>
5	Code of Practice for Official Statistics	<a href="http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html">http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html</a>
6	Retail Sales revisions policy and analysis	<a href="http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisionsPolicy.pdf">http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisionsPolicy.pdf</a> <a href="http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisions.xls">http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisions.xls</a>
7	Triennial review of the Retail Sales Inquiry	<a href="http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13527">http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13527</a>
8	Methodology of the experimental measure of Internet retail sales	<a href="http://www.statistics.gov.uk/downloads/theme_economy/November_2008_Internet_Supplementary_note.pdf">http://www.statistics.gov.uk/downloads/theme_economy/November_2008_Internet_Supplementary_note.pdf</a>
9	Comparing official and non-official estimates of retail sales	<a href="http://www.statistics.gov.uk/pdfdir/rssn1008.pdf">http://www.statistics.gov.uk/pdfdir/rssn1008.pdf</a>
10	Early estimates of consumer spending	<a href="http://www.statistics.gov.uk/cci/article.asp?ID=1036">http://www.statistics.gov.uk/cci/article.asp?ID=1036</a>
11	Changes to the retail sales methodology in May 2009	<a href="http://www.statistics.gov.uk/cci/article.asp?id=2220">http://www.statistics.gov.uk/cci/article.asp?id=2220</a> <a href="http://www.statistics.gov.uk/downloads/theme_economy/FAQ.pdf">http://www.statistics.gov.uk/downloads/theme_economy/FAQ.pdf</a>
12	Retail Sales Revisions Spreadsheet	<a href="http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisions.xls">http://www.statistics.gov.uk/downloads/theme_economy/RSIRevisions.xls</a>
13	Publication Hub	<a href="http://www.statistics.gov.uk/hub/index.html">http://www.statistics.gov.uk/hub/index.html</a>

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