

## **The Retail Sales Work plan 2014**

**20 March 2014**

**(Updated 23 October 2014)**

## Introduction

This document sets out the methodological work plan for retail sales and Internet sales statistics. The plan includes a list of all regular updates that take place on an annual basis and as well as describing the change, provides the user with an assessment of the impact on the time series data. Further the plan provides information on further development and research that will be undertaken in the next calendar year as well as planned articles on retail sales.

Users are invited to provide comments on this work plan to the retail sales team through emailing [retail.sales.enquiries@ons.gsi.gov.uk](mailto:retail.sales.enquiries@ons.gsi.gov.uk)

### 1. Developments and or reviews applicable to both retail sales and Internet sales statistics

There are a number of planned developments that will affect both retail sales and Internet sales statistics. These are as follows:

#### 1.1 Review of imputation methods

The variables collected for the Retail Sales Index are:

- The value of total retail sales inclusive of VAT
- Of which how much was collected via the Internet.

For a small subset of the RSI sample extra variables are included to allow for the calculation of the Monthly Commodity Index (MCI). These include

- The value of food sales
- The value of alcohol, confectionary and tobacco sales
- The value of clothing and footwear sales,
- The value of household goods sales; and
- The value of other goods sales.

For those respondents that do not return these data each month a value is imputed using a ratio imputation method as described in the Quick Guide to RSI. The imputation method is the same for all variables collected and in reviewing this method a more appropriate imputation method has been found.

The current method, sometimes referred to as mean of ratios calculates growths for each business in a given strata for the current and previous period. After the largest 1-% of companies are removed, these growths are then averaged to provide the imputation link. This link is then multiplied by the previous value for the missing business.

In the new method sometimes referred to as ratio of means, the same businesses are used to calculate the growth, but this time the current and previous period values are averaged first and then a ratio is taken. There is no need to remove the largest 10% now as the ratio of averages is much more stable and reduces imputation bias. Because the two averages are over the same number of businesses, this actually cancels to be a ratio of two sums as shown in figure 1.

Figure 1: New imputation method

$$\text{Imputed value} = \text{Previous value for non-responding business} \times \frac{\sum_{class} \text{Current value}}{\sum_{class} \text{Previous value}}$$

The changes associated with this new method have been analysed and an implementation date is under negotiation. An article explaining the changes users can expect as a result of this new methodology will be published at the same time.

**Update: The review was completed and a new imputation method introduced in June 2014. This affected data from May 2013 however the impact on data was minimal in all months except December 2013 and the changes were unbiased with both upwards and downwards movements. More information can be found in ONS article '[Change to Imputation Method used for the Turnover Question in Monthly Business Surveys](#)' published 19 June 2014.**

### 1.2 Review of reference tables

A review of the reference tables published will be conducted with a view to reducing the number of tables published and how they are published. This review will be completed with a user consultation to ensure the publication of these tables meets user's needs. This review will be completed by the end of March 2014 and consultation will begin shortly after.

**Update: After consultation we published new reference tables replacing reference tables 1-4 which were introduced in June 2014.**

### 1.3 Review of MCI sample and published data

The MCI sample consists of 31 large retailers who provide data on total turnover, internet sales and the commodities listed above. While most respondents are able to provide information against all or most of these commodities, some are only able to provide information against one. Therefore, ONS, have taken the decision to review the sample used to collate the Monthly Commodity Index and in doing so will determine if the published data can be improved to provide more explanation of the commodities bought at different store types. This review will be completed by June 2014.

**Update: This work has not been done given ONS drive towards electronic data collection (EDC). This work has been put on hold until the review of EDC has been completed. We hope to include this review within the EDC remit which will reduce ONS compliance costs.**

### 1.4 Review of measures of uncertainty for retail sales estimates

Estimates of the standard errors for the 12 month and one month growth of the volume non-seasonally adjusted index have been published for the periods 2009 and 2010 -2012. The review of these measures will look at the:

1. Possibility of extending the methodology to allow publication of standard errors for the period reported.
2. Possibility of creating estimates of the standard error for the value non-seasonally adjusted 12 month and 1 month growth rates for Internet sales

3. How these estimates are presented.

This review will be completed by September 2014.

**Update: This work has been put on hold and the review will be completed by December 2014.**

## **2. Internet sales developments**

For Internet sales statistics planned developments and or reviews are as follows:

### **2.1 Introduction of seasonally adjusted Internet sales as a proportion of total retail sales (excluding fuel).**

Two methods are being considered. The first is to seasonal adjust the proportion of Internet sales of total retail sales directly. The second is to create the seasonally adjusted proportion using seasonally adjusted total Internet sales and total retail sales excluding fuel. The method used will be communicated to user via the ONS website when implemented. The current implementation date is March 2014, subsequently the changes from this method will be introduced in February 2014 bulletin released March 27.

**Update: Seasonally adjusted internet sales data was introduced in the [February 2014 statistical bulletin](#), released 27 March 2014.**

### **2.2 Feasibility study of chained volume measures for Internet sales.**

The review into deflating current price Internet sales data will involve assessing consumer price indices to assess their feasibility as a deflator for total Internet sales data. At present many of the CPI's produced use data collected in-store and this may not be a true reflection of the price of the same commodities sold online. A report on this initial study will be produced by October 2014 and this work plan will subsequently be updated with the actions arising from this study.

**Update: This work has been put on hold and the report will be completed by December 2014.**

### 3. Timetable of yearly changes applicable to both retail sales and Internet sales

Methodological change / Review	Description and known impact	Implementation Date	First publication when change will appear
Updating of weights for all index categories	Each year the weights used in the calculation of RSI are changed to reflect the total turnover of each industry as a proportion of total retail. Retail sales data for the most recent full year are used to calculate these weights which are then fixed for a period of 12 months.	April 2014	March 2014, released 25 April 2014 <b>Update: Completed and released 25 April 2014</b>
Annual seasonal adjustment review	Each year the Time Series and Seasonal adjustment branch in Survey Methodology Division review the seasonal adjustment parameters used for each of the 26 Index categories in both current price and chained volume measure forms. These reviews are applied to the whole series and thus can result in revisions to the back series.	September 2014	August 2014, released 18 September 2014 <b>Update: Completed and released 18 September 2014</b>
Update of reference year	To ensure consistency with the UK National Accounts, the reference year for the RSI is updated when a set of Quarterly National Accounts consistent with Blue Book is available. When the reference year is updated users can expect revisions to the index series however, growth rates should be maintained from the reference period onwards.	September 2014	August 2014, released 18 September 2014 <b>Update: Completed and released 23 October 2014</b>

## **4. Planned articles**

### **4.1 Revisions**

An article on revisions to the Retail Sales Index will examine the extent to which the RSI is revised one month and 12 months after publication. The article will focus on the year-on-year, month-on-month and three month-on-three month growth rates as well as looking at the extent to which year-on-year growth rates for small and large stores are revised. A comparison to how other National Statistics Institutes treat revisions to measures of retail trade will be made and the rationale for RSI having a different revisions policy to the National Accounts will be explained.

**Update:** ONS article '[Revisions to the Retail Sales Index 2014](#)' was published on 4 April 2014.

### **4.2 International comparisons**

An article on how the ONS Retail Sales Index compares to the measures of retail trade for the US, Euro area, EU 28 and Japan will be published in June 2014. The article will compare the methods and compilation of these measures as well as latest estimates, providing users with an understanding of conceptual and methodological differences.

**Update:** ONS article '[International Measures of Retail Sales](#)' was published on 6 June 2014.