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An experimental measure of Internet retail sales

Introduction

Sales made over the Internet are an important and evolving part of the retail sector and there are clear benefits in an official monthly estimate.

Internet retail sales are already collected as part of the monthly Office for National Statistics (ONS) Retail Sales Inquiry (RSI). However, the value of sales made over the Internet has not been separately identified within the RSI estimates. This is because the RSI collects data on total turnover from each of the businesses in the sample, but does not ask retailers to specify how much of this was transacted over the Internet.

This supplementary note accompanies the first experimental estimate of Internet retail sales and provides an overview on how this estimate has been compiled. The experimental measure of Internet retail sales will be produced on a monthly basis and will be disseminated at the same time each month as the Retail Sales First Release (<http://www.statistics.gov.uk/StatBase/Product.asp?vLnk=870>).

Capturing Internet retail sales using the Retail Sales Inquiry

The Retail Sales Inquiry (RSI) is a monthly survey of approximately 5,000 businesses in Great Britain. The RSI covers sales from businesses registered as retailers where the retail sector is defined as the sale of goods to the general public for household consumption. Businesses are classified according to the internationally defined Standard Industrial Classification (SIC). The RSI includes a broad coverage of all sectors and includes small, medium and large businesses. Collectively all of these businesses cover approximately 75 per cent of the retail sector in terms of turnover in Great Britain.

Each business within the RSI is asked to provide total retail turnover including sales from stores, via the internet, mail order, stalls and markets, door-to-door and telephone sales. The RSI covers Internet businesses whose primary function is retailing but also covers Internet retail sales by other British retailers, such as online sales by supermarkets, department stores and catalogue companies. This means that the RSI covers three of the main types of household Internet spending:

- a. spending on goods from specialist Internet retailers
- b. spending on goods from store-based retailers
- c. spending on goods from catalogue-based mail order retailers

The RSI does not cover household spending on services bought from the retail sector as it is specifically designed to only cover goods. Businesses are also asked to separate out the non-goods elements of their sales. For example, on-line sales of services, such as car insurance, are excluded from the coverage of the RSI. Businesses specialising in providing material for downloading over the Internet, such as music and mobile phone ring tones, are covered if they are retailers only and are not also involved in the production or processing of such material. Sales of downloads by store-based retailers would be included in their total sales figures.

The ONS estimate of Internet sales has been calculated for large and small and medium sized businesses separately, as described in the next two sections.

Estimating Internet retail sales for large businesses

The RSI includes the 900 largest retailers each month. In addition, a separate Monthly Commodity Inquiry (Table 5 in the RSI First Release) collects sales by main commodity directly from 34 of the leading retailers within Great Britain.

In order to capture Internet retail sales, an additional question has been included in the Monthly Commodity Inquiry since 2007 which asks: "Of your total retail turnover this month, what was the value of Internet sales?". Here, Internet sales are defined to include sales from orders received over the Internet, irrespective of the payment or delivery method.

Of the 34 retailers, 25 have internet sales and have been able to provide a breakdown of turnover, to include the value of Internet retail sales each month. Additional Internet retail sales data can also be obtained each month from a further 14 large businesses, who are primarily involved in Internet related activities and are also already included within the RSI survey each month. In total, the 39 large businesses, account for approximately 40% of total turnover within Great Britain.

During the continued development of ONS Internet retail sales series, the Internet turnover data provided by this sub-sample of large businesses will be weighted together to represent Internet sales from all large businesses. Further development work is described below.

Estimating Internet retail sales for small and medium businesses

In order to derive an estimate of Internet retail sales for all businesses, an understanding of the scale and coverage of Internet retail sales for small and medium businesses is needed.

A pilot survey from March 2008 to June 2008 was conducted for small and medium businesses. To limit the burden of form filling on businesses, this pilot targeted six sectors where Internet retail sales were more likely: Mail order; Clothing; Electrical household appliances and radio and television goods; Photographic, optical and precision equipment, office supplies and equipment (inc. computers); Jewellery, sports, Other in specialised stores not elsewhere classified; and Books, newspapers and stationery. Other sectors that may have some internet activity were not assessed in the pilot survey.

From March 2008 to June 2008 a random sample of 89 businesses was selected each month from the RSI from these identified sectors. Some businesses were included in consecutive months to give a degree of continuity over time. All businesses in the pilot survey were asked: "Do you have any Internet sales?", and if a positive response was received to this they were asked "Would you be able to provide an estimate of these sales each month, if required?".

The information collected from this pilot was then used to derive an initial factor to represent all small and medium businesses within those identified sectors. These factors have been applied to aggregate turnover returns to give an estimate of the Internet related activity.

In the short term, the factors for small and medium businesses will be fixed, based on the pilot survey. They will be reassessed and updated on a regular basis from further pilot surveys and additional information. Further development work is described below.

Internet retail sales as a percentage of total retail sales

The average weekly sales estimates over the Internet for large businesses, and separately for small and medium businesses are weighted together to give an overall estimate of average weekly sales by the Internet for all retailers.

Based on this approach, Table 1 and Figure 1 give the average weekly Internet retail sales as a percentage of average weekly total sales, for all retailers, within Great Britain. Data is available from November 2006.

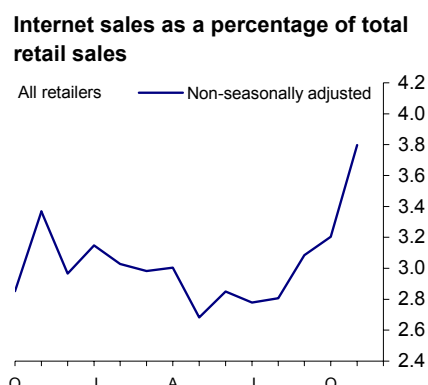
The data are not seasonally adjusted as the time series is not long enough to produce a reliable estimate of seasonality. Seasonally adjusted estimates can be calculated once at least three years of consistent data are available. Nonetheless the year-on-year percentage change of the non-seasonally adjusted data gives a rough approximation to performing seasonal adjustment, although it does not allow for effects such as evolving seasonality, or the change in standard reporting periods over time.

Table 1: Value of retail sales and Internet retail sales, for all retailers (non seasonally adjusted)

Value of retail sales and Internet retail sales, for all retailers (non-seasonally adjusted)					
		Average weekly value for all retailing (£ million) †	Average weekly value for Internet retail sales (£ million)	Internet sales as a percentage of total retail sales (%)	Internet sales as a percentage of total retail sales year on year (%)
2008	Jun	5,122.3	146.0	2.8	16.2
	Jul	5,157.2	143.3	2.8	8.8
	Aug	5,057.2	142.0	2.8	14.3
	Sep	5,036.1	155.4	3.1	16.0
	Oct	5,246.4	168.1	3.2	12.3
	Nov	5,797.0	220.1	3.8	12.8

† The average weekly value for all retailing equates to that reported in the Retail sales First Release

Figure 1: Internet sales as a percentage of total retail sales, for all retailers (non seasonally adjusted)



Comparisons against other available indicators

There are a wide range of different data sources available which report retail sales made using the Internet. For example, ONS publishes an annual e-commerce survey (<http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=6645>) where one output is the value of Internet retail sales by United Kingdom businesses with 10 or more employees. This data is not available on either a monthly or quarterly basis, as the 2007 results were released in November 2008. This information is complementary but does not provide a direct indication of retail sales made using the Internet within Great Britain due to differences in scope and methodology. This article (<http://www.statistics.gov.uk/cci/article.asp?ID=1353>) describes how Internet retail sales are covered by the RSI in comparison to other ONS surveys.

A wide range of non-official statistics on Internet related retail activity are also available. For example, the Interactive Media in Retail Group (<http://www.imrg.org>) compile an index which tracks 'online sales', which they define as 'transactions completed fully, including payment, via interactive channels' from any location, including in-store. Verdict Research (<http://www.verdict.com>) publish an estimate which includes all online spending on goods by consumers and therefore excludes spending on services (including flights, tickets and insurance) and business expenditure.

The British Retail Consortium publishes a non-food and non-store sales indicator which is described as 'transactions which take place over the internet, or via mail order, or via telesales'. This indicator is not purely an internet specific indicator, because it includes mail order and also excludes food sales, for example it does not include on-line sales of food from leading supermarkets.

Additionally, some businesses independently publish their own estimates for Internet retail sales in annual reports.

These estimates can differ greatly due to significant differences in scope, coverage and methodology. Care needs to be taken in the interpretation and comparison of alternative estimates.

Continued development

Development work is ongoing in ONS to ensure that the ONS estimate of Internet retail sales is robust and representative, particularly for small and medium businesses. A dedicated question relating to Internet retail sales, applicable for all businesses within the RSI, will be included in the RSI questionnaire in 2009. This will be used to update the proportion of retail sales that relate to Internet sales for all businesses, and this continued development work will ensure that this indicator reflects the dynamic nature of this evolving sector. A further article describing these changes will be published once additional developments have been made.

Until all development work is completed, the Internet retail sales estimate will remain as an experimental estimate and will not be a National Statistic.

Contact details

If you have a query about the Retail Sales Inquiry please email: retail.sales.enquiries@ons.gsi.gov.uk