

# Value of e-trading by non-financial sector UK businesses

## E-commerce survey of business, 2003

### Structure of this report:

- **Key Findings**
- **Introduction** - including uses, limitations and improvements
- **Sales over the Internet**
- **Purchases over the Internet**
- **Sales over other types of ICTs**
- **Background and Explanatory Notes** - including selection information and estimation.

### Key findings:

- The value of Internet sales more than doubled between 2002 and 2003; from £19 billion to £39.5 billion.
- In the same period, the value of Internet purchases rose from £18.7 billion to £39.9 billion.
- 67 per cent of all Internet sales and 78 per cent of Internet purchases were of physical products.
- Sales over other ICTs, for example, Electronic Data Interchange, e-mail and PC based fax, also rose, but more modestly, from £170.8 billion to £195.6 billion (14.5 per cent).
- The value of sales to households rose to £11.4 billion in 2003 from £6.4 billion in 2002.

### Introduction

This is the second and final release of data from the 2003 e-commerce survey. The first report was published earlier this month and focussed on the adoption and use of Information and Communication Technologies (ICTs) by UK businesses. The data in both of these articles provides information to policy makers, to help direct efforts to support ICT innovation, and to businesses to help them benchmark their own ICT use against other comparative businesses. The survey is part of a European Union (EU) initiative providing EU-comparable data on e-commerce. The definition of e-commerce used is that agreed by the Organisation for Economic Co-operation and Development (OECD) and the EU: it is the method by which the order is placed which determines whether a transaction is e-commerce - not the payment or delivery channels.

Unlike the results produced earlier this month on usage, the value data presented here is frequently dominated by a small number of, typically, the largest businesses.

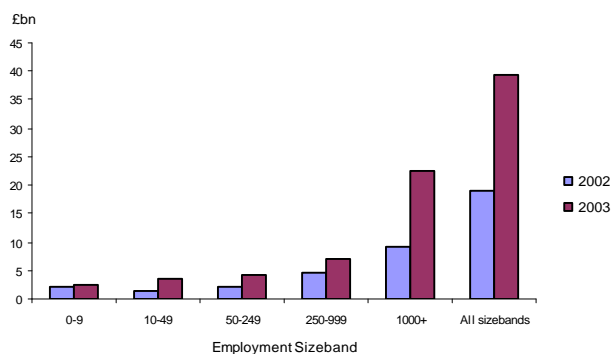
This is the fourth annual data-set produced and this survey is still in its infancy. Because of this and the definitional developments and developmental nature of ICT, these data are designated as experimental. The Office for National Statistics' Code of Practice Protocol on Dissemination permits this status where National Statistics are developing and undergoing evaluation. Full background and explanatory notes can be found at the end of this report.

### Sales over the Internet

The value of sales over the Internet accounted for 17 per cent of sales over all kinds of ICTs in 2003 and 2 per cent of the total sales by the non-financial sectors in 2003.

The rise, from £19bn in 2002 to £39.5bn in 2003, represented an increase of 108 per cent in the value of sales on-line, compared to a rise of just 25 per cent of businesses reporting that they sell on-line. This suggests that, in addition to more businesses selling on-line in 2003, businesses are also selling more.

Value of sales over the Internet by UK non-financial sector businesses, by sizeband, 2002 and 2003

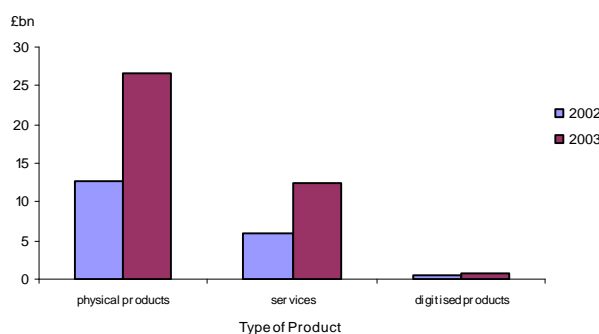


Anecdotally, businesses have reported:

- that improved access, ease of use, knowledge and cost incentives encourage more households to buy on-line, for example, accommodation and travel services;
- a large increase in the use of the Internet for the sale of office supplies to businesses;
- that increased sales have been driven by suppliers, with dealerships being required by manufacturers to deal on-line;
- that increased sales have also been driven by retailers, with manufacturers being required by large retailers to sell on-line, for example, supermarkets;
- their own active promotion of the Internet to customers.

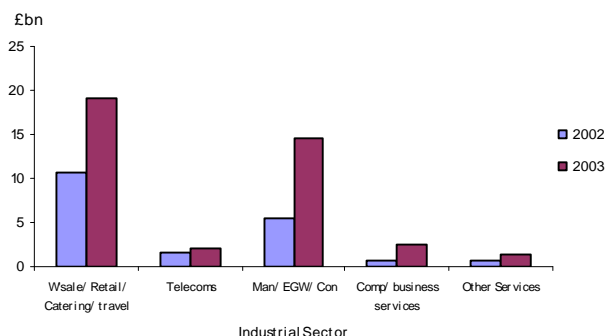
For every £100 sold on-line £67 was spent on physical products, £31 was spent on services and £2 was spent on digitised products. In 2003, the share of sales to businesses and households was £71 and £29 in every £100, respectively. This shows a slight shift toward businesses compared to 2002, when the share was £67 and £33 respectively.

Value of sales over the Internet by UK non-financial sector businesses, by type of product, 2002 and 2003



The Wholesale, Retail, Catering and Travel sector reported £19.1bn of on-line sales in 2003, representing £48 of every £100 sold on-line; while the Manufacturing sector reported the largest year on year rise in the value of on-line sales, from £5.5bn in 2002 to £14.6bn in 2003. Computing and Other Business Services reported a relatively modest total of £2.5bn in 2003, but this represented a four-fold increase on the £0.6bn value reported for 2002.

**Value of sales over the Internet by UK non-financial sector businesses, by broad industrial sector, 2002 and 2003**



Businesses in all employment sizebands sold more on-line, with businesses with employment of 1000 or more accounting for £57 of every £100 sold on-line. The largest relative increase year on year was among businesses with employment from 10 to 49, where the value of on-line sales rose 177 per cent from £1.3bn to £3.6bn.

### ***Sales of physical products over the Internet***

On-line sales of physical products rose 111 per cent from £12.6bn in 2002 to £26.6bn in 2003. The dominant sectors were Manufacturing and Wholesale, Retail, Catering and Travel, between them accounting for £93 of every £100 of physical products sold on-line.

Businesses in all employment sizebands sold more physical products on-line. Those businesses with employment of 1000 or more sold the majority, with £13.9bn, or £52 for every £100 sold. These businesses also showed the largest relative increase of 173 per cent, up from £5.1bn in 2002.

### ***Sales of services over the Internet***

The value of the sales of services on-line rose to £12.3bn in 2003 from £6bn in 2002, with the Wholesale, Retail, Catering and Travel sector accounting for £57 in every £100 of those sales, £7bn in 2003 from £3.3bn in 2002. In general terms, the larger the business the higher the value of services sold on-line, with sales by businesses with employment of 1000 or more at £8.4bn in 2003, or £68 of every £100 worth of services sold on-line.

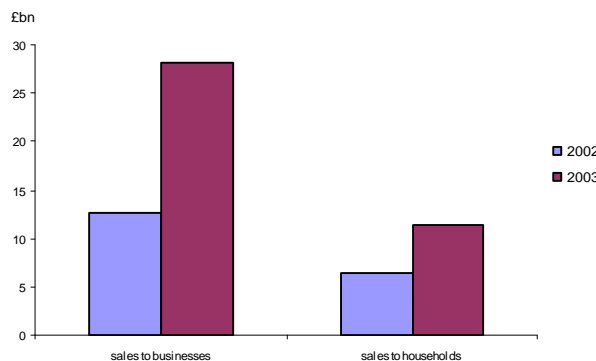
### ***Sales of digital products over the Internet***

Digitised products accounted for £2 of every £100 worth of on-line sales. That represented a 40 per cent increase year on year, from £0.5bn in 2002 to £0.7bn in 2003, led by the Manufacturing sector selling £43 of every £100 worth of digitised products sold.

### ***Sales to households over the Internet***

On-line sales to households showed a 78 per cent rise from £6.4bn in 2002 to £11.4bn in 2003. On-line sales to households represented 29 per cent of the total of on-line sales.

**Value of sales over the Internet by UK non-financial sector businesses, to businesses and households, 2002 and 2003**

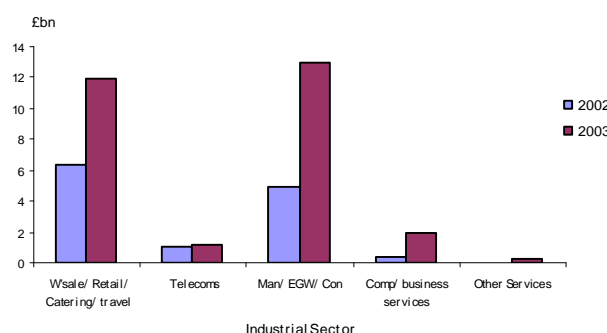


By sector, Wholesale, Retail, Catering and Travel dominated, accounting for £63 of every £100 sold on-line to households, a total of £11.4bn in 2003, compared to £6.4bn in 2002, a rise of 78 per cent. The largest relative increase by a sector was in the Computing and Other Business Services sector, which rose more than three-fold.

### ***Sales to businesses over the Internet***

On-line sales to businesses represented 71 per cent of total on-line sales, and rose from £12.7bn in 2002 to £28.2bn in 2003. By sector, Manufacturing and Wholesale, Retail, Catering and Travel dominated, accounting for £88 in every £100 sold on-line to businesses.

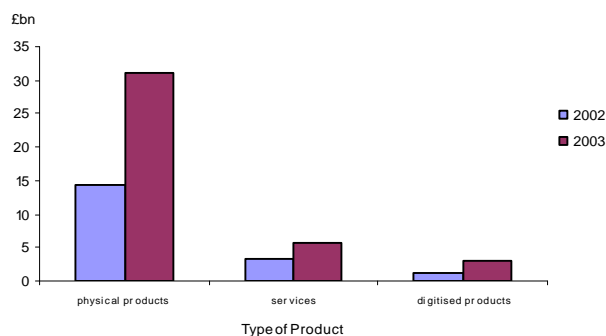
**Value of sales over the Internet by UK non-financial sector businesses to businesses, by broad industrial sector, 2002 and 2003**



### ***Purchases over the Internet***

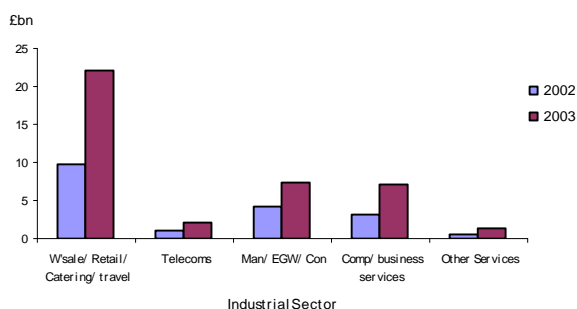
Businesses purchased £39.9bn worth of products and services over the Internet in 2003, a rise of 113 per cent from the 2002 figure of £18.7bn, reflecting a very similar rise to that presented in the data released earlier this month for businesses reporting that they buy on-line. The value of on-line purchases was split between physical products - 78 per cent, services - 14 per cent and digitised products - 8 per cent.

**Value of purchases over the Internet by UK non-financial sector businesses, by type of product, 2002 and 2003**



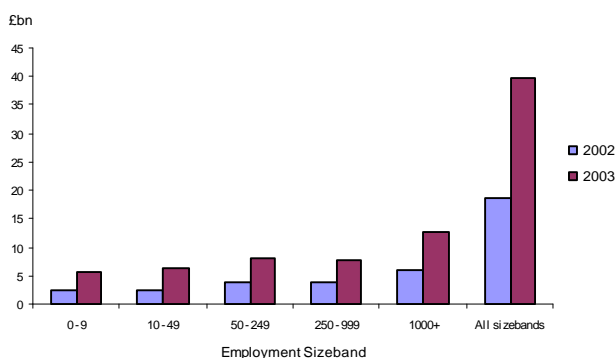
All sectors of the economy showed an increase year on year in their Internet purchases, often two-fold. The Wholesale, Retail, Catering and Travel sector dominated, spending £56 of every £100 of the £39.9bn total. Despite having spent only £3 in every £100, the Other Services sector showed the biggest percentage increase year on year at 160 per cent. This has been supported anecdotally by businesses in this sector reporting more supplies and equipment ordered on-line.

**Value of purchases over the Internet by UK non-financial sector businesses, by broad industrial sector, 2002 and 2003**



Typically, and irrespective of their size, the value of on-line purchases more than doubled, and the larger the size of the business, the higher the value of purchases ordered on-line. Businesses with employment of 1000 or more spent £31 of every £100 spent on-line; at the other extreme, businesses with fewer than 10 employment spent £14 of every £100 spent on-line.

**Value of purchases over the Internet by UK non-financial sector businesses, by sizeband, 2002 and 2003**



***Purchases of physical products over the Internet***

There were large year on year increases in the value of physical products bought on-line by businesses in all sectors. The Wholesale, Retail, Catering and Travel sector dominated, spending £61 of every £100 spent on-line.

By size, businesses with employment of 1000 or more spent £30 of every £100 spent on-line, which, by default means that the other £70 was spent by smaller businesses. To re-emphasise this, the largest percentage growth in on-line purchases between 2002 and 2003 was in businesses with fewer than 50 employment.

***Purchases of services over the Internet***

The amount spent on services ordered on-line rose to £5.7bn in 2003 from £3.2bn in 2002, a 78 per cent change. Again, the Wholesale, Retail, Catering and Travel sector dominated, spending £2.1bn on services bought on-line in 2003. This percentage increase was not the largest, however; the Telecommunications sector rose 150 per cent between 2002 and 2003 from £0.4bn to £1bn. At the other end of the scale, the Other Services sector rose by 22 per cent and stood at £0.2bn for 2003.

Businesses with employment of 1000 or more spent £40 of every £100 spent on services ordered on-line. The remaining £60 was fairly evenly shared across all other employment sizebands.

***Purchases of digital products over the Internet***

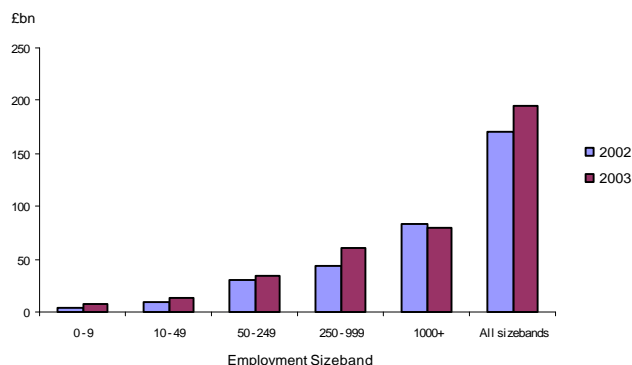
On-line purchases of digitised products took the smallest share of the total bought, at 8 per cent of the total, although the year on year percentage rise was the highest of the three purchase types, at 158 per cent. Again, the Wholesale, Retail, Catering and Travel sector reported the largest value of on-line purchases of digitised products, £35 of every £100 spent. The Other Services sector reported just £3 of every £100 spent on digitised products on-line.

By size, businesses with employment of 1000 or more, spent £32 of every £100 spent on on-line orders for services, and £35 by businesses with fewer than 50 employment. This is a relatively high level of purchases of digitised products on-line by small businesses. To further demonstrate this, half of all money spent on these products in the Computing and Other Business Services sector was spent by businesses with fewer than 10 employment.

**Sales over other types of ICTs (non-Internet)**

While the use of the Internet for selling has grown over recent years, ICT sales overall were dominated by other kinds of ICTs (i.e. non-Internet ICTs), for example, using Electronic Data Interchange, e-mail and automated telephone sales. In 2003, sales over other ICTs accounted for £83 in every £100 sold over all ICTs, although this was a reduction from the 2002 figure of £90 in every £100. By way of relative comparison, sales over the Internet rose by £20.5bn, from £19bn to £39.5bn, or 108 per cent, and over other ICTs by £24.8bn, from £170.8bn to £195.6bn, or 15 per cent, between 2002 and 2003.

**Value of sales over the Internet by UK non-financial sector businesses, by sizeband, 2002 and 2003**



The Manufacturing sector, with £112bn of sales, followed by the Wholesale, Retail, Catering and Travel sector, with £70.4bn worth of sales, accounted for £93 of every £100 spent using other ICTs.

#### ***Sales to households and businesses over other ICTs***

Not surprisingly, the household/business split of sales over other ICTs was dominated by businesses, accounting for £98 of every £100 spent. Again, the Manufacturing sector, with £112bn of sales to businesses, followed by the Wholesale, Retail, Catering and Travel sector with £67.5bn worth of sales, accounted for £93 of every £100 spent over other ICTs.

Sales to households over other ICTs were dominated by the Wholesale, Retail, Catering and Travel sector, at £2.9bn, representing £74 of every £100 worth of sales over other ICTs.

#### **BACKGROUND AND EXPLANATORY NOTES**

This survey is sent annually to 12,000 UK businesses of all sizes and covers most economic activity (see 'Coverage'). For the 2003 survey, just over 84 per cent of the questionnaires were returned and validated. The Inter-Departmental Business Register (IDBR) was used as the sampling frame. Businesses with less than 10 employment were included in the sample for the third successive year. Because of the difficulty in identifying and measuring the value of trade in the Financial, Banking and Insurance sector, the data do not include the activity of this sector. A recent pilot study of the sector is one initiative currently underway to overcome these difficulties and publish these data in the future.

The annual e-commerce survey is a relatively new survey and is still developing and has therefore been designated as experimental. The Office for National Statistics' Code of Practice Protocol on Dissemination permits this status where National Statistics are developing and undergoing evaluation.<sup>7</sup>

The 2002 estimates of the values of electronic trading have been revised. Businesses continue to have difficulty in estimating the proportion of their orders made and received electronically and have consistently overestimated these values, leading to downward revisions.

This area of measurement has been highlighted as one of difficulty and it is possible that revisions will continue to be a feature of the survey in the future.

As in previous years, data are subject to revision, and some 2002 data have been revised by businesses contacted in the process of validating the 2003 data. Where this is the case, the data are marked 'r'. Additionally, methodological aspects of the survey are still under development, both within the EU and worldwide, in the context of the European Statistical Office (Eurostat) and OECD discussions. The outputs of the e-commerce survey are, therefore, likely to remain under development, and subject to change, for a number of years.

The survey questionnaire was changed significantly for the 2002 survey following consultation with businesses, UK government users, Eurostat and other EU member states, and building upon the experience of the first two surveys. Changes have also been made to the 2003 questionnaire, partly due to international development in the methodology of measurement in ICT, and partly due to changes in the technology itself, which has raised new areas of policy interest. These have been kept to a minimum to try to achieve a time series within the next few years.

As a result of these changes, and mis-reporting by businesses, comparison is not advisable with data prior to 2002, even at an aggregate level.

#### **Definition of broad sectors**

The following UK SIC(92) Divisions define the broad sectors used in this report:

Manufacturing, Electricity, Gas and Water supply and Construction - Div 15-45  
Wholesale, Retail, Catering and Travel - Div 50-63  
Telecommunications - Div 64  
Computing and Other Business Services - Div 70-74  
Other Services - Div 85; 92-93.

#### **Coverage**

The value data element of the e-commerce survey covers the whole economy excluding:

UK SIC(92)	
Div	Title
01	Agriculture
02	Forestry, logging and related activities
05	Fishing
10	Mining of coal and lignite and extraction of peat
11	Extraction of crude petroleum and natural gas
12	Mining of uranium and thorium
13	Mining of metal ores
14	Other mining, quarrying
65	Financial intermediation
66	Insurance and pension funds
67	Other financial intermediation services
75	Public administration, defence and social security
80	Education
90	Sewage and refuse disposal and similar activities
91	Membership organisations not elsewhere classified
95	Private households as employers of domestic staff
99	Extra-Territorial organisations

**Definition of Internet orders for physical products, services and digitised products**

Internet orders for physical products, are goods ordered on-line for delivery off-line, for example, components, stationery, hardware, books, CD-ROMs, manufactured goods etc.

Internet orders for services, are services that are ordered on-line, but are delivered off-line, for example, accommodation and air travel.

Internet orders for digitised products, are products that are ordered and delivered (downloaded) on-line in digitised form, for example, reports, software and new kinds of web products which substitute physical products or services, such as on-line information and weather services.

**Further Information**

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**Table 1: Value of orders received over the Internet by UK businesses in the non-financial sector, from households and businesses, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
From households	2002	1.2	0.4	0.5	0.8	3.5 <sup>r</sup>	6.4
	2003	1.2	0.9	1.2	1.2	6.8	11.4
From businesses	2002 <sup>r</sup>	0.9	0.9	1.6	3.6	5.6	12.7
	2003	1.2	2.6	2.9	5.8	15.7	28.2
Total	2002 <sup>r</sup>	2.2	1.3	2.1	4.4	9.1	19.0
	2003	2.4	3.6	4.2	7.0	22.4	39.5

**Table 2: Value of orders received over the Internet by UK businesses in the non-financial sector, by type of product, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
Physical products	2002 <sup>r</sup>	1.3	0.9	1.5	3.7	5.1	12.6
	2003	1.5	2.5	3.2	5.5	13.9	26.6
Services	2002	0.7	0.3	0.4 <sup>r</sup>	0.7 <sup>r</sup>	3.9 <sup>r</sup>	6.0 <sup>r</sup>
	2003	0.7	1.0	0.8	1.4	8.4	12.3
Digitised products	2002	0.1	-	0.2	-	0.1 <sup>r</sup>	0.5 <sup>r</sup>
	2003	0.1	0.1	0.2	0.1	0.2	0.7
Total	2002 <sup>r</sup>	2.2	1.3	2.1	4.4	9.1	19.0
	2003	2.4	3.6	4.2	7.0	22.4	39.5

<sup>r</sup>- revised

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Note: Discrepancies may occur between totals and the sum of their independently rounded components

**Table 3: Value of orders received over the Internet by UK businesses in the non-financial sector, by broad industrial sector, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
Manufacturing/ EGW/ Construction	2002	0.4 <sup>r</sup>	0.4	0.5 <sup>r</sup>	1.6 <sup>r</sup>	2.6 <sup>r</sup>	5.5 <sup>r</sup>
	2003	0.3	0.4	0.9	1.3	11.7	14.6
W'sale/Retail/ Catering/Travel	2002	1.5	0.6	1.4	2.6	4.5	10.6
	2003	1.5	2.0	3.0	5.0	7.6	19.1
Telecommunications	2002	-	0.2	-	-	1.5	1.7
	2003	-	0.2	-	-	1.8	2.1
Computing/ Other business services	2002	0.2	0.1	0.1	0.1 <sup>r</sup>	0.1 <sup>r</sup>	0.6 <sup>r</sup>
	2003	0.5	0.8	0.2	0.5	0.4	2.5
Other Services	2002	-	-	0.1	0.1	0.4 <sup>r</sup>	0.7 <sup>r</sup>
	2003	0.1	0.2	0.1	0.1	0.9	1.3
Total	2002 <sup>r</sup>	2.2	1.3	2.1	4.4	9.1	19.0
	2003	2.4	3.6	4.2	7.0	22.4	39.5

**Table 4: Value of orders received over the Internet by UK businesses in the non-financial sector, from households and businesses, by broad industrial sector, 2002 and 2003**

		From households	From businesses
<i>£bn</i>			
Manufacturing/ EGW/ Construction	2002	0.6	4.9 <sup>r</sup>
	2003	1.6	13.0
W'sale/Retail/ Catering/Travel	2002	4.3	6.3
	2003	7.2	11.9
Telecommunications	2002	0.8	1.0
	2003	0.8	1.2
Computing/ Other business services	2002 <sup>r</sup>	0.1	0.4
	2003	0.6	1.9
Other Services	2002	0.6 <sup>r</sup>	-
	2003	1.1	0.2
Total	2002	6.4	12.7 <sup>r</sup>
	2003	11.4	28.2

<sup>r</sup>- revised

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Note: Discrepancies may occur between totals and the sum of their independently rounded components

**Table 5: Value of orders received over ICTs other than the Internet by UK businesses in the non-financial sector, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
Total	2002	4.7	8.8r	30.0r	43.3r	84.0r	170.8r
	2003	7.5	14.0	33.4	61.4	79.2	195.6

**Table 6: Value of orders placed over the Internet by UK businesses in the non-financial sector, by type of product, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
Physical products	2002	1.5	1.9r	3.4r	2.9r	4.6r	14.3r
	2003	4.0	4.9	6.7	6.2	9.2	31.1
Services	2002	0.8	0.3	0.3	0.7	1.1r	3.2r
	2003	0.9	0.8	0.8	0.9	2.3	5.7
Digitised products	2002	0.2	0.1r	0.2	0.2	0.5r	1.2r
	2003	0.6	0.5	0.5	0.5	1.0	3.1
Total	2002	2.6	2.3r	3.9r	3.8r	6.1r	18.7r
	2003	5.5	6.3	8.0	7.6	12.5	39.9



**Table 7: Value of orders placed over the Internet by UK businesses in the non-financial sector, by broad industrial sector, by size of business, 2002 and 2003**

Employment size		0-9	10-49	50-249	250-999	1000+	All sizebands
<i>£bn</i>							
Manufacturing/ EGW/ Construction	2002	0.6	0.2 <sup>r</sup>	0.5 <sup>r</sup>	1.1 <sup>r</sup>	1.9 <sup>r</sup>	4.3 <sup>r</sup>
	2003	0.5	0.7	1.2	1.9	3.0	7.3
W'sale/Retail/ Catering/Travel/	2002	0.8	1.5	2.5	1.9	3.1	9.8
	2003	2.2	3.8	5.2	4.9	6.2	22.2
Telecommunications	2002	-	0.1	-	-	0.8	1.0
	2003	0.1	0.2	0.1	0.1	1.7	2.2
Computing/ Other business services	2002	1.0	0.4 <sup>r</sup>	0.9	0.6	0.2	3.1 <sup>r</sup>
	2003	2.5	1.5	1.4	0.7	1.0	7.0
Other Services	2002	0.1	-	0.1	0.1	0.2 <sup>r</sup>	0.5 <sup>r</sup>
	2003	0.3	0.1	0.1	0.1	0.7	1.3
Total	2002	2.6	2.3 <sup>r</sup>	3.9 <sup>r</sup>	3.8 <sup>r</sup>	6.1 <sup>r</sup>	18.7 <sup>r</sup>
	2003	5.5	6.3	8.0	7.6	12.5	39.9

<sup>r</sup>- revised

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Note: Discrepancies may occur between totals and the sum of their independently rounded components