

# Concentration ratios for businesses by industry in 2004

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This article presents an overview of concentration ratios together with statistics produced by the Office for National Statistics (ONS) for 1992 to 2004 as published in the *United Kingdom Input-Output Analyses, 2006 Edition* on 18 August 2006. These estimates are consistent with those published in the 2006 *Blue Book* and 2006 *Pink Book*.

The availability of concentration ratios provides users with an estimate of the importance and contribution of relatively large businesses in each industry.

## Introduction

This article provides detailed information and statistics produced by ONS covering UK concentration ratios based on the Input-Output Annual Supply and Use Tables. These statistics provide users with an estimate of the economic importance of relatively large businesses in each industry.

The focus of this article is on concentration ratios, changes that have taken place, and the extent of the concentration, but not about the competitive nature of the market structure. Concentration ratios can, however, also provide information regarding an industry's competitiveness and the scope available for economies of scale. This article includes specific sections covering:

- definition and methodology
- source of information
- key messages
- industry and market structures, including classifications
- changes to concentration ratios
- examples of changes to some industries, including privatisations
- changes in the largest UK publicly quoted companies
- largest UK private companies

The data for these analyses have been derived from the 2004 Input-Output Annual Supply and Use Tables published by ONS in August 2006, and the 2004 ONS Annual Business Inquiry (ABI), a key input in producing the Input-Output Annual Supply and Use Tables.

## Definition and methodology

Concentration ratios provide estimates of the extent to which the largest firms contribute to activity in an industry. They can be derived using variables such as sales (turnover), employment and profits, but this article mainly focuses on gross value added (GVA) and output. GVA and output are key variables used in National Accounts and the Input-Output Annual Supply and Use Tables.

The concentration ratios in this article are based on ABI data for each Input-Output (I-O) industry. The percentage of GVA contributed by the leading businesses in each I-O industry has been calculated for the top five and top 15 businesses, as follows:

$$\text{Concentration ratio} = \frac{\text{Sum of GVA for the largest businesses}}{\text{Total GVA for industry}}$$

The top five and top 15 largest businesses in each industry were identified by ranking contributors to the 2004 ABI, in order of GVA by value. This article also provides corresponding concentration ratios for these top businesses showing their total output as a proportion of total output of the industry.

### Source of information

The company information collected and shown in this article is based on reports in the financial press and company websites, as well as already published ONS material. Examples include the *ONS Sector Classification Guide*, *Private non-financial corporations Sector Report*, *Mergers and Acquisitions* releases and previous *Blue Books*. The company names and associated comments are based on published information and do not reveal any disclosive information collected by ONS business surveys. For non-ONS sources, a fuller list of specific references is shown at the end of this article.

### Key messages

Appendix 1 shows for each I-O industry, GVA and total output at current basic prices for the top five and top 15 businesses, expressed as a percentage of the industry's GVA and total output at current basic prices, as derived from the 2004 ABI. Also shown in Appendix 1 are comparative estimates of GVA and total output at current basic prices from the 2004 Input-Output Annual Supply and Use Tables.

Figure 1 shows that, for around half of the industries covered, the top five businesses contribute less than 30 per cent of industry GVA and total output at current basic prices.

Table 1 shows the top ten and bottom ten industries in terms of the contribution made by the top five businesses.

Figure 2 shows that, for around half of the industries covered, the top 15 businesses contribute more than 50 per cent of industry GVA and total output at current basic prices.

Figure 1  
Top five businesses' contribution to GVA and total output: frequency distribution in 2004

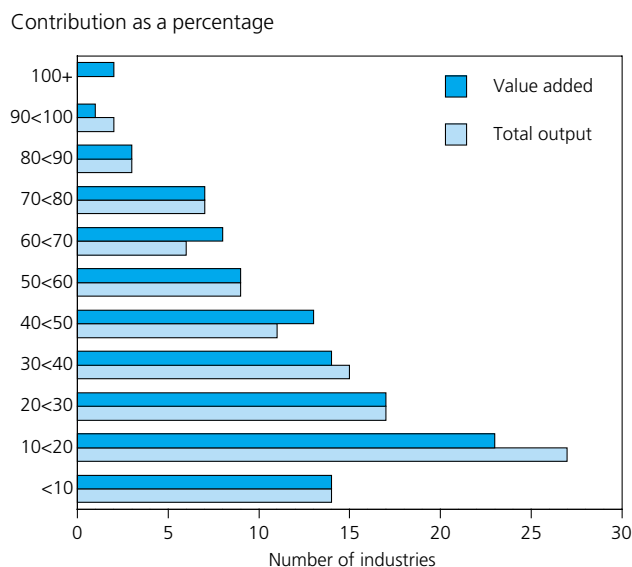


Figure 2  
Top 15 businesses' contribution to GVA and total output: frequency distribution in 2004

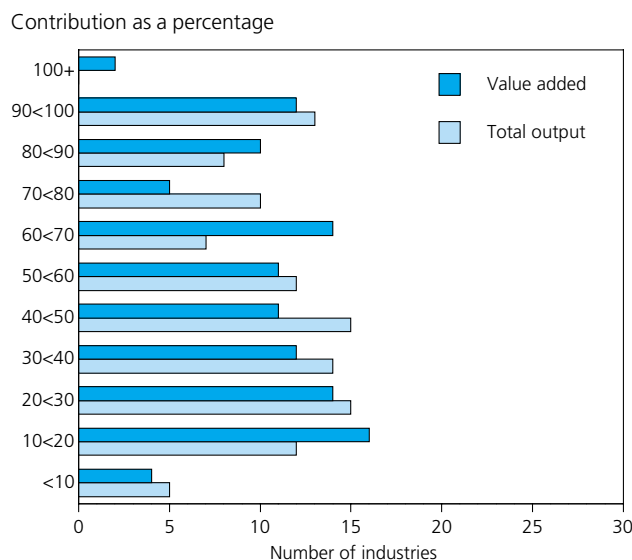


Table 1

### Contribution to GVA and total output at current basic prices of top five businesses by industry group

Top ten industries with greatest percentage contribution by the top five businesses to GVA and total output:

I-O no.	I-O group name
15	Sugar
20	Tobacco products
86	Gas distribution
10	Oils and fats
16	Confectionery
46	Man-made fibres
4	Coal extraction
19	Soft drinks and mineral waters
41	Pesticides
67	Weapons and ammunition

Bottom ten industries with least contribution by the top five businesses to GVA and total output:

I-O no.	I-O group name
59	Metal forging, pressing, etc.
48	Plastic products
122	Other service industries
81	Furniture
88	Construction
114	Other business services
57	Structural metal products
63	General purpose machinery
31	Wood and wood products
90	Wholesale distribution

For all of these I-O groups the contribution is over 70 per cent. A few very large players dominate all of these industries. The same can also be said of industries not covered in the table: 96 (Air transport) and 100 (Banking and finance).

For all of these I-O groups, the contribution is less than 10 per cent.

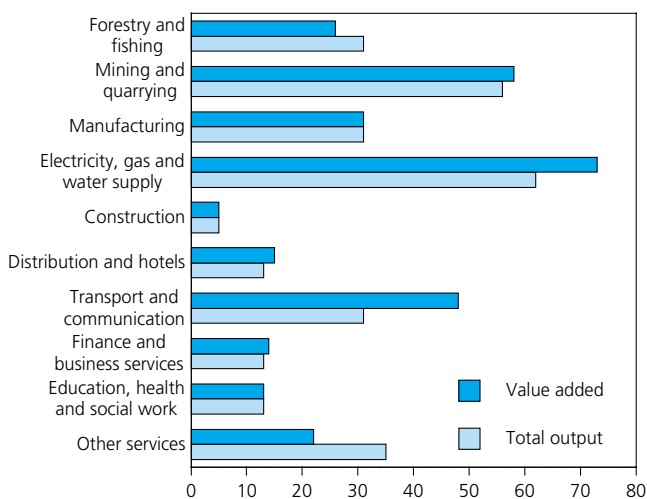
Figure 3 shows that, in the UK, there are wide variations between the concentration ratios across the 123 I-O industry groups and, for certain industries, between time periods.

Some industries include many small businesses, some of which are run by the self-employed, and these industries have low GVA concentration ratios. Examples of these industries are shown in Table 2.

In the UK, there are a number of industries where a few, very large, businesses have dominated their respective industries for several years, and these industries have high GVA concentration ratios. Some of these industries have many of the characteristics of oligopolies. Examples of these industries are shown in Table 3.

**Figure 3**  
Contribution to GVA and total output of the top five businesses by industry in 2004

Contribution as a percentage



**Table 2**  
Broad industry groups with low GVA concentration ratios

Name of industry
Farming
Clothing and textiles
Printing and publishing
Furniture
Construction
Computer services

**Table 3**  
Broad industry groups with high GVA concentration ratios

Name of industry
Oil and gas extraction as well as refining
Sugar
Soft drinks
Tobacco
Gas distribution
Airlines
Banking
Accountancy
Postal services

### Industry and market structures

The UK Input-Output Annual Supply and Use Tables are compiled using 123 industry groups, where the industries are defined using the 2003 version of the *Standard Industrial Classification 2003* (SIC (2003)), which is consistent with the United Nations classification NACE Rev. 1.1.

The SIC (2003) provides a hierarchical system for classifying businesses and other statistical units across the whole economy by the type of economic activity in which they are engaged. The 123 I-O industry groups link one-to-one or one-to-many to SIC (2003) classes at the 4-digit level.

Businesses are classified on the ONS Inter-Departmental Business Register (IDBR) to industries on a SIC (2003) basis according to the descriptions of their main business activity at each local unit that they operate. The IDBR complies with the European Union Regulation on Harmonisation of Business Registers for Statistical Purposes. This is also in line with the classifications and principles used by international National Statistical Institutions in producing their National Accounts. Businesses on the IDBR are also classified by legal status, as listed below:

- companies
- sole proprietors
- partnerships
- public corporations
- central government
- local government, and
- non-profit organisations

The IDBR is updated using administrative data from the VAT (updated weekly) and pay-as-you-earn (PAYE) schemes (updated quarterly) provided by HM Revenue and Customs (HMRC) together with information from other sources such as ONS Business Surveys, Companies House and Dun and Bradstreet.

Coverage of businesses on the IDBR is not completely exhaustive. Only businesses with an annual turnover greater than the threshold (£61,000 from the date of the 2006 Budget statement) must register with HMRC for VAT. Similarly, only businesses with employees earning above the tax threshold must register with HMRC for PAYE.

Therefore, certain types of businesses may be under-represented, for example:

- self-employed run businesses without employees and with low turnover
- businesses operating with employees all paid below the income tax threshold and with low turnover
- non-profit institutions serving households exempt from VAT registration and operating with unpaid workers
- businesses trading exclusively in exempt goods

Information on the IDBR is updated frequently, reflecting an ever-changing economy as businesses restructure themselves and change their activity over time. Businesses are born and businesses die. In 2004, according to the IDBR, there were over 2.1 million business enterprises registered, providing around 99 per cent coverage of all economic activity in the UK.

The Small Business Service (an executive agency of the Department of Trade and Industry) estimates that there were 4.3 million business enterprises in the UK in 2004. This estimate excludes government and non-profit organisations but includes estimates of very small businesses based on the ONS Labour Force Survey and HMRC's Survey of Personal Incomes that do not appear on the IDBR. As the Small Business Service estimates are based on survey data, the reliability of their estimates of the smallest-sized enterprises is lower than estimates of larger- and medium-sized businesses based on administrative data.

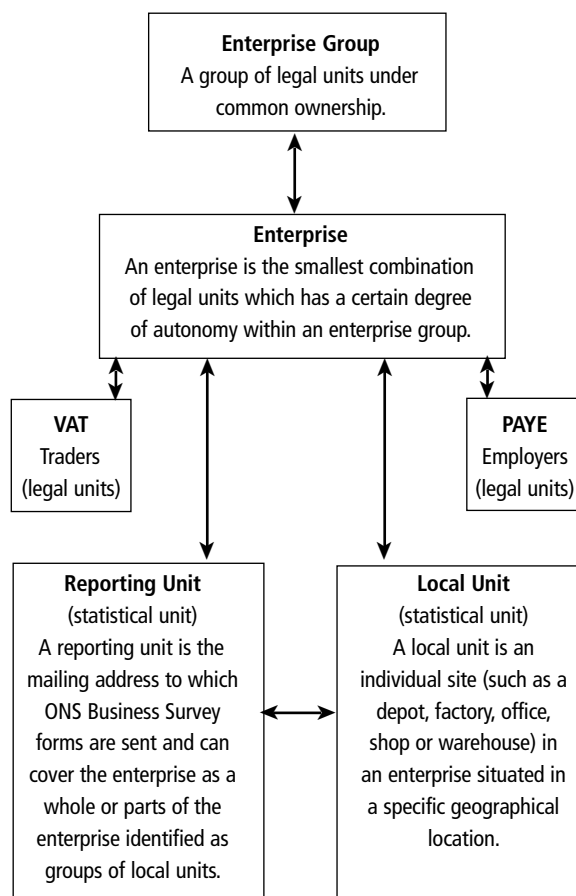
The IDBR provides a sampling frame for surveys of businesses carried out by ONS and by other government departments. For example, the ABI collects statistical information mainly at the enterprise level (a combination of VAT and/or PAYE-registered legal units which have a certain degree of autonomy) using the IDBR.

ABI data are used to produce analyses of economic activity feeding into the Input-Output Annual Supply and Use Tables, and the wider National Accounts.

The legal statuses used to classify businesses on the IDBR are very close to the definitions of the institutional sectors used within the National Accounts.

Figure 4 shows the links between administrative legal units and statistical reporting units on the IDBR.

Figure 4  
Links between administrative legal units and statistical reporting units



There are different ways of classifying industries and markets in terms of their concentration and competition, for example:

- the number of firms
- how easy is it to enter the industry – cost and difficulty of start-ups
- the nature of the product
- the extent of price controls/regulation

These points are characteristics of the four main market structures:

- perfect competition
- monopoly
- monopolistic competition, and
- oligopoly

Key features of each of the main market structures are summarised in Table 4, and described in fuller detail in Table 5.

Table 4  
Features of the main market structures

Type of market structure	Number of businesses	Freedom of entry	Nature of product	Price controls
Perfect competition	Very many	Open, unrestricted	Various	Elastic, driven by buyer
Monopoly	One	Closed, restricted	Unique	Inelastic, firm control
Monopolistic competition	Many	Open, unrestricted	Heterogeneous	Relatively elastic
Oligopoly	Few	Limited, restricted	Similar	Relatively inelastic

Table 5  
Four main market structures

<b>Perfect competition</b>	<p>Perfect competition is a market situation where:</p> <ul style="list-style-type: none"> <li>■ many providers and purchasers exist in the market place, none of whom are large enough to influence the price</li> <li>■ there is freedom of entry and exit into the market</li> <li>■ purchasers and providers have equal knowledge of, for example, information on prices and output in the industry</li> <li>■ all businesses produce a similar product</li> </ul> <p>Examples include the agriculture industry, a stock exchange, and the car and home insurance industry.</p>
<b>Monopoly</b>	<p>A monopoly is a market situation whereby there is only one provider of the good or service, and characterised by the absence of competition for the goods or services they provide and a lack of substitute goods or services.</p> <p>There are various types of monopolies:</p> <ul style="list-style-type: none"> <li>■ legal monopoly: imposed by statute or under regulation, for example a government or state monopoly such as British Rail and British Airways before privatisation</li> <li>■ natural monopoly: where economies of scale mean that a single firm can supply all purchasers, for example, in the electricity and water industries</li> <li>■ local monopoly: where, within a small area, a single firm is the only source of a product. An example would be a petrol station</li> </ul>
<b>Monopolistic competition</b>	<p>Industries dominated by a single business may allow the business to act like a monopoly and thereby create monopolistic competition. Examples include accountancy businesses, construction companies, restaurant chains and supermarkets. Large businesses may monopolise the market through horizontal integration, selling different products but belonging to the same parent company, for example, a publishing firm selling a range of magazines. Vertically integrated businesses can also form a monopoly, for example, an electricity company covering generation, distribution, transmission and supply.</p>
<b>Oligopoly</b>	<p>An oligopoly is a market dominated by a small number of providers. Often, an oligopoly is defined as an industry or market in which the top four businesses have a concentration ratio above 40 per cent. There are numerous examples of industries and markets that have, or have moved towards, oligopolistic structures, for example: aerospace, brewing, car manufacture, cement, steel, supermarket and tobacco industries as shown in Table 7.</p>

Table 6  
Examples of businesses cutting across several Input-Output industry groups

Name of business	Activity
BP	Oil and gas extraction, organic chemicals and solar electricity panels
Cadbury Schweppes	Confectionery and soft drinks
GlaxoSmithKline	Mineral waters, soft drinks and pharmaceuticals
National Grid	Electricity transmission network and natural gas transportation system
Unilever	Food and personal-care products
Sony	Electrical goods and media communications

Large businesses, groups and multinationals, can have significant interests in a variety of industries and markets, each of which may be oligopolistic in nature. For example, a brewing company may manufacture goods and also have a strong distribution side. In the Input-Output Annual Supply and Use Tables, these types of businesses may have units in several I-O industry groups. Table 6 shows examples of some key businesses operating in the UK which cut across several I-O industry groups.

Table 7 shows examples of industries/markets that have, or have moved towards, oligopolistic structures.

Other, less common, market structures include cartels, duopolies, triopolies, monopsonies and oligopsonies, as described below.

Cartels are where several businesses act together to manage prices or production, often under an informal and secret

Table 7  
Examples of sectors with large businesses

Sector	Name of business
Oil and gas extraction	British Gas, BP, ConocoPhillips, ExxonMobil, Shell
Sugar	British Sugar, Tate & Lyle
Soft drinks	Cadbury Schweppes, Coca Cola
Brewers	Allied Domecq, Carlsberg Tetley, Diageo, Interbrew, Scottish & Newcastle
Tobacco	BAT, Gallaher Group, Imperial Tobacco Group
Wood and paper products	Argo-Wiggins Appleton
Pharmaceuticals	Astra-Zeneca, Eli Lilly, GlaxoSmithKline, Pfizer
Glass	Pilkington
Food and personal-care products	Procter & Gamble, Unilever
Steel manufacturing	Corus
Electrical retail	Currys, Dixons, Kesa (Comet)
Food retail	Asda/WalMart, Morrisons, Sainsbury, Tesco
Motorway service operators	Macquarie (Moto), Roadchef, Welcome Break
Fast food	Burger King, KFC, McDonalds
Home DIY	B&Q, Focus, Homebase
Airlines	British Airways
Airport operator	British Airports Authority
Postal services	Royal Mail
Mobile phone networks	O2, Orange, T-Mobile, Vodafone
Banks	Barclays, HBOS, HSBC, LloydsTSB, Royal Bank of Scotland, Banco Santander
Accountancy	Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers

Source: See 'Source of information'

agreement, in effect acting as a single monopoly. This collusion reduces competition with each other and thereby reduces risk, increases profits and prevents new businesses from entering the market place. Typically, members of a cartel may agree on:

- choice of area
- choice of customers
- credit terms
- discounts
- output levels/quotas
- prices
- who should win a contract (bid rigging)

Agreements of this type are prohibited by the Cartels and the Competition Act 1998 and Articles 81 and 82 of the EC Treaty. Any business found to be a member of a cartel could be fined up to 10 per cent of its worldwide turnover. In addition, the Enterprise Act 2002 makes it a criminal offence for individuals to dishonestly take part in the most serious types of cartels.

The market structures covered so far are described in terms of providers. Market structures can also be defined in terms of purchasers.

A monopsony is where there is a single purchaser and several providers, also known as a buyer monopoly. Although very rarely does a monopsony exist in its purest form, examples include the labour market in a small community in which a single large business is the dominant employer, or government purchases of weapons.

An oligopsony is where the total number of purchasers is small in number but the number of providers is large, for example, farmers selling to a limited number of retailers.

### Changes to concentration ratios

The Input-Output Annual Supply and Use Tables show industry and product structural changes over time, together with changes to the balance of domestic production, consumption, imports and exports.

During the period 1992 to 2004, the composition of businesses in some industries changed radically but still maintained relatively high concentration ratios. Industries such as I-O groups 100 (banking and finance) and 110 (accountancy services) had high concentration ratios in the late 1980s. Several mergers and takeovers have contributed to increasing concentration ratios.

On the other hand, some industries have been affected by privatisations and non-consolidations, and some of these changes have contributed to reducing concentration ratios.

Changes to industry concentration ratios may occur for a variety of reasons, including:

- demergers, joint ventures, mergers and takeovers
- deregulation and regulation
- globalisation, including toll processing
- nationalisations and privatisations
- new products and technologies
- organic growth
- production efficiencies, including outsourcing/contracting-out
- reclassifications, resulting from changes in the composition of the businesses' output
- restructurings

Structural changes such as demergers, mergers and takeovers generate rapid changes to industries' concentration ratios. Invariably there is a dominant party in either a merger or takeover. Table 8 shows some of the largest mergers and takeovers involving UK businesses since the mid-1990s.

Mergers can be achieved through vertical integration, where the businesses operate at different stages in the production chain, or through horizontal integration, where the separate businesses compete in the same industry.

Table 8  
Largest UK mergers and takeovers

Value of takeover/merger (£ billion)	Businesses involved	Year
101.4	Vodafone and Mannesmann	2000
42.7	Vodafone and AirTouch	1999
34.3	BP and Amoco	1998
24.0	Grand Metropolitan and Guinness	1997
23.8	Royal Bank of Scotland and National Westminster	2001
21.4	GlaxoWellcome and SmithKline Beecham	2000
21.0	Astra and Zeneca	1999
19.0	Orange and Mannesmann	1999
18.0	BP and Atlantic Richfield Corporation	2000
17.6	Telefonica and O2	2006
12.4	Unilever and Bestfoods	2000
10.4	Cable & Wireless and Hong Kong Telecom	2000
10.4	Halifax and Bank of Scotland	2001
10.3	Orange and France Telecom	2000
10.3	Ferrovial and BAA	2006
9.5	Orange and Hutchinson Whampoa	1999
9.5	Banco Santander and Abbey	2004
9.4	Glaxo and Wellcome	1995
9.1	HSBC and Household International	2003
8.9	Linde and BOC Group	2005
8.4	CGU and Norwich Union	2000
8.4	BAT Industries Financial and Zurich International	1998

Businesses merge, for example, to generate economies of scale to compete with larger businesses or extend production over a larger range of goods or services. There are several types of economies of scale, for example:

- commercial – purchasing input materials in bulk and increasing market share
- financial – availability of loans at lower rates of interest thereby reducing debt and increasing cash flows
- labour – reduction of the labour force covering overlapping or similar activities
- managerial – employment of specialist managers or reduction of administrative overheads
- marketing – spreading the cost of advertising and promotion or better use of existing brand reputation
- research and development – developing better products more quickly
- technical – joint production using expensive machinery more efficiently and intensely

These changes, together with outsourcing or selling parts of the newly merged business, can increase or decrease demand for other businesses' products, which can also have an impact on other industries' concentration ratios.

## Oil companies

Many oil companies are multinational businesses carrying out a wide range of activities, cutting across several I-O groups, for example:

- crude oil and gas extraction (I-O group 5)
- refining of petroleum (I-O group 35)
- supply and marketing of petroleum products (I-O groups 35 and 89)
- manufacture and marketing of chemicals (I-O group 38)
- solar electricity and panels (I-O groups 73 and 85)
- gas and power generation, transmission and supply (I-O group 86)
- research and development (I-O group 108)
- technical testing (I-O group 112)

There have been several large mergers and takeovers in the oil industry in the UK and globally over the past two decades, which have helped to raise the industry's concentration ratio. For example, since the UK government sold its last shares in British Petroleum in 1987, the company has changed substantially. BP plc is the result of several mergers and takeovers by British Petroleum of other large companies including Britoil (1987), US Standard Oil Company (1987), Amoco (1998), Arco (2000) and Burmah Castrol (2000).

BP is now not only the largest company in the UK but one of the three largest oil companies in the world, together with ExxonMobil and Royal Dutch Shell. Table 9 shows the largest UK oil companies.

Table 9  
Largest UK oil companies

	Name of business
1	BP
2	ExxonMobil
3	Shell
4	Conoco Phillips
5	Talisman Energy
6	Chevron Texaco
7	Amerada Hess
8	Total
9	BG
10	Esso

## Sugar

I-O group 15 (sugar) has been dominated by two major companies in the UK for several decades, British Sugar and Tate & Lyle.

The UK sugar beet industry is the leading supplier of sugars to the UK market, providing around half the country's needs. The remainder is met by sugar cane imports from developing countries, which is a unique market position that no other

country matches. The UK sugar beet crop is grown by about 7,000 farmers.

British Sugar, which is wholly owned by Associated British Foods, processes and markets all sugar beet grown in the UK. British Sugar also holds the entire UK sugar beet quota, which has been the situation since the UK joined the European Community in 1973.

Tate & Lyle was formed through a merger in 1921 between Henry Tate and Abram Lyle’s refining companies. Tate & Lyle is now the largest refiner of cane sugar in the world.

About a dozen UK sugar traders dealing with the import and export of sugar are mainly classified to I-O group 90 (wholesale).

### Pharmaceuticals

I-O group 43 (pharmaceuticals) has undergone several mergers and takeovers in the past decade, resulting in a major consolidation and rationalisation of the UK pharmaceuticals industry.

The UK pharmaceuticals industry now has two dominant businesses: GlaxoSmithKline and Astra Zeneca. These two businesses are also major players in the global market, which is driven by a small number of very large players. These UK pharmaceuticals businesses cover a range of activities from pharmaceuticals to research and development, which again cut across different I-O groups.

In 1989, SmithKline Beecham was formed through the merger of SmithKline, a business based in the USA, and Beecham, which at the time was one of the oldest UK drug companies.

In 1993, Imperial Chemical Industries demerged its agrochemicals, pharmaceuticals and specialities businesses to form Zeneca Group.

In 1995, Glaxo Wellcome was created as a merger between Glaxo and Wellcome, at the time the largest merger ever in the UK.

In 1999, Astra Zeneca was formed through the merger of Zeneca Group, a major player in the UK drug market, and the Swedish firm Astra AB.

In 2000, GlaxoSmithKline was formed from the merger of Glaxo Wellcome and SmithKline Beecham, and became the largest drug company in the world and, at the time, the largest UK company.

GlaxoSmithKline has one of the largest research and development budgets in the world. In addition to drug products, GlaxoSmithKline owns a number of other businesses producing household name products such as Lucozade and Ribena.

### Motor vehicles

I-O group 77 (motor vehicles) has undergone major transformation over the past three decades. In the late 1980s, this industry was dominated by large British car producers which have since either ceased production or been taken over,

and the market is now dominated by large Japanese and other overseas car producers based in the UK.

Since the 1950s, sales by UK car manufacturers have declined, and producers have consolidated. For example, British Leyland was formed through merging Austin Morris and Leyland, which produced Rover, Jaguar and Triumph cars. British Leyland was nationalised in 1977, and ten years later formed Rover Group.

Table 10 shows examples of the range of cars produced by UK-based producers over the past 50 years.

UK car producers faced strong competition from imports with lower costs of production and higher quality, which now account for over half of UK car sales. Through this period, many UK car producers and manufacturers of car components ceased production, and some businesses were acquired by overseas producers, for example:

- Jaguar and Aston Martin are owned by Ford
- Rolls Royce and Bentley are owned by Volkswagen (although the Rolls Royce name passed to BMW)
- MG Rover, owned by Nanjing Automobile Group in 2005

Japanese businesses, in particular Honda, Nissan (the first Japanese company to build a car plant in Europe) and Toyota, have built modern manufacturing plants in the UK,

Table 10  
Examples of makes of cars produced in the UK over the past 50 years

Car manufacturer	Car manufacturer
AC	Lagonda
Alvis	Land Rover
Armstrong Sidley	Lotus
Aston Martin	Marcos
Austin	McLaren
Austin Healy	MG
Bentley	MG Rover
Berkeley	Morgan
BMC	Morris
BMW	Nash
Bond	Nissan
Bristol	Peugeot
British Leyland	Range Rover
Caterham	Reliant
Citroen	Riley
Daimler	Rolls Royce
De Lorean	Rover
Elva	Singer
Fairthorpe	Standard
Ford	Sunbeam
Healy	Toyota
Honda	Triumph
Hillman	Turner
Humber	TVR
Jaguar	Vauxhall
Jensen	Wolseley

where production processes are highly efficient and produce high quality products. New technologies and changes in production processes allow for almost 24 hours a day, and seven days a week, production. However, these factories were loss-making through the 1990s, because of missed sales targets, relatively high inflation, large investment and the strength of the pound sterling, but are now highly profitable. In 2005, Japanese businesses produced nearly 767,000 cars, of which around 70 per cent went for export, including Japan.

In 2005, the UK produced around 1.6 million cars, which is about 300,000 below the record set in the early 1970s. This is also much higher than the low of 880,000, in 1982.

Ford, one of the world's largest car companies, stopped producing Ford cars in the UK in 2002 but the UK is still one of Ford's centres for engine production. However, Ford continues to produce luxury brands such as Aston Martin, Jaguar and Land Rover in the UK.

The global car manufacturing market is led by companies like DaimlerChrysler, Ford, GM, Renault-Nissan, Toyota and Volkswagen, building on strategic links with smaller companies such as Fiat and Mitsubishi. Businesses such as BMW, Honda and PSA (Peugeot and Citroen) are also major businesses.

The UK car manufacturing industry is led by businesses as shown in Table 11.

**Table 11**  
**Largest UK car producers**

Name of business/location of factories	Production at major British car factories in 2005 (thousands)
Nissan	
Sunderland	315
Toyota	
Burnaston (Derbyshire)	264
BMW (Mini)	
Cowley (Oxford)	200
Vauxhall	
Ellesmere Port (Cheshire), Luton	189
Honda	
Swindon	187
Land Rover	
Solihull	176
Peugeot	
Ryton (Coventry)	127
Jaguar	
Birmingham, Coventry, <sup>1</sup> Halewood	84

<sup>1</sup> Stopped assembling cars in September 2004.

Source: FT Research

## Retail distribution

I-O group 91 (retail distribution) and the high street have changed substantially over the past two decades with larger retail businesses growing at the expense of smaller retailers. The number of retail businesses in Great Britain, as reporting units recorded on the ONS Business Register, has declined from over 219,000 in 1992 to around 194,000 in 2004.

However, the retail distribution industry was one of the top ten fastest growing I-O industries in terms of GVA between 1992 and 2004.

The introduction of Sunday trading (1994 Sunday Trading Act), Internet shopping and home deliveries continue to impact on consumer shopping habits.

UK retailers continue to face various challenges, for example, the impact of large out-of-town shopping facilities and competition from businesses based in Europe and USA now trading in the UK.

Table 12 shows the ten largest UK retailers.

**Table 12**  
**Ten largest UK retailers**

	Name of business	Type of retailer
1	Tesco	Supermarket
2	J Sainsbury	Supermarket
3	Morrisons	Supermarket
4	Kingfisher	Diversified
5	Marks & Spencer	General merchandise
6	Somerfield	Supermarket
7	Great Universal Stores	Non-store
8	Dixons Group	Electricals
9	Boots	Drug store
10	John Lewis Partnership	Department store

Note: Asda is not in the list as it is owned by WalMart, a multinational company based in the USA.

## Telecommunications

I-O group 99 (telecommunications) has undergone major changes in terms of industry composition, and reduction of its concentration ratios. These changes have been led by various factors, including:

- development of broadband Internet access, email, text messaging, mobile phones, mp3 players, digital networks, optical fibre cables and the Internet itself
- rapid expansion of a few large companies
- market deregulation
- non-consolidation of some businesses
- ending of the monopoly held by British Telecom

The UK's largest mobile phone business, Vodafone, is the result of several mergers and takeovers across the world, and growth from its investment in new products and digital technologies. Vodafone was originally formed in 1984 as a subsidiary of Racal Electronics plc and, in 1985, made the

UK's first ever mobile call. The company was fully demerged and became an independent company in 1991, at which time it changed its name to Vodafone Group plc. In 1999, Vodafone merged with AirTouch, a mobile phone network in the USA, and changed its name to Vodafone AirTouch. In 2000, Vodafone AirTouch purchased Mannesmann for over £100 billion and, at the time, formed the largest takeover in the world. The company renamed itself as Vodafone Group in July 2000. As a result of the changes to the industry mentioned above, together with a number of mergers, takeovers and acquiring of stakes in various companies across the world, Vodafone has become the largest mobile communications company in the UK and the world.

British Telecom (BT) is the world's oldest telecommunications company, dating back to the mid-nineteenth century, and was one of the largest UK companies through the 1980s and 1990s. BT was privatised in three tranches in 1984, 1991 and 1993. New legislation removed BT's monopoly in running telecommunication systems and treated it in the same way as other operators.

Since the early 1990s, competition between suppliers of fixed telecommunication services has developed rapidly. UK household and business users can now choose their direct-to-the-house fixed-link telephone provider.

Through competition, deregulation, restructuring and evolution of new technologies, the original privatised monopoly has been demerged into smaller companies, and has evolved through joint ventures into a global company. Table 13 shows the new BT Group as a holding company for the four separately managed businesses.

**Table 13**  
**Structure of BT Group in 2005**

Name of business	Activity
BT Retail	Serving UK fixed-line customers
BT Wholesale	Running the UK network
BT Global Services	A data-centric broadband business focused on corporate and wholesale markets
BT Openworld	A mass market Internet access business focused increasingly on broadband services

Some of the restructured parts and demerged companies from the original BT company are now classified to other I-O industry groups. For example, two of the largest demerged parts from BT are:

- BT Wireless – BT's mobile business, re-branded as mmO2 and then O2
- Yell – international directories and e-commerce business, including the Yellow Pages brand

In November 2001, mmO2 demerged from BT to become an independent wholly-owned company, and launched the O2 consumer brand in mid-2002. O2 expanded rapidly and in early 2006 was taken over by Telefonica from Spain.

Other major mobile network operators have also been separated from their original parent businesses. For example, Hutchison Whampoa Ltd launched Orange in 1994. Orange expanded rapidly in the UK mobile phone market through the 1990s before it was purchased by Mannesmann in 1999, which itself was purchased by Vodafone in 2000. Subsequently in 2000, France Telecom acquired Orange plc from Vodafone.

Third Generation (3G) is the next generation of mobile phone technology, offering greater capability in data transmission and new services such as video clips, photo-messaging, email, games, mp3 music players, interactive and web-based information services.

The UK government received £22.5 billion cash payment when it issued five 3G mobile phone licences in 2000. The licences allowed companies to access the government-owned electromagnetic spectrum. Table 14 shows the five successful companies who gained a licence in the UK in 2000 and the amounts paid.

**Table 14**  
**Third Generation UK mobile phone licences issued in 2000**

Licence	Amount (£ billion)	Name of business
A	4.385	TIW UMTS (UK) Limited
B	5.964	Vodafone Limited
C	4.030	BT (3G) Limited
D	4.004	One2One Personal Communications Limited
E	4.095	Orange 3G Limited

*Note: Licence A is a joint venture between Telesystem International Wireless (Canada) and Hutchison Whampoa (Hong Kong).*

The UK mobile market is still growing. The four Global System for Mobile Communications (GSM) operators Vodafone, O2, T-Mobile and Orange, were joined in March 2003 by the first 3G operator, "3" (Hutchison 3G UK Limited). Vodafone, Orange and T-Mobile launched their own 3G services in 2004, and O2 in 2005.

Section 3(2) of the Communications Act 2003 required OFCOM to secure the optimal use of the electromagnetic spectrum, and the availability of a wide range of electronic communication services.

In May 2006, OFCOM awarded 12 Wireless Telegraphy Act licences for the frequencies 1781.7 to 1785 MHz paired with 1876.7 to 1880 MHz as a result of its first spectrum auction, raising £3.8 million, through a single-round sealed bid auction process. The licences were for a total of 6.6 MHz of spectrum to be used on a low power basis, including possible uses such as private GSM mobile phone networks in office buildings or campuses. Multiple licences were awarded to encourage development of a range of new and innovative competitive services.

Table 15 shows the 12 companies awarded a licence in the UK in 2006 and the amounts paid.

Table 15  
Wireless Telegraphy Act: UK licences issued in 2006

Name of business	Amount (£)
British Telecommunications plc	275,112
Cable & Wireless UK	51,002
COLT Mobile Telecommunications Ltd	1,513,218
Cyberpass Ltd	151,999
FMS Solutions	113,000
Mapesbury Communications Ltd	76,660
O2 (UK) Ltd	209,888
Opal Telecom Ltd	155,555
PLDT (UK) Ltd	88,889
Shyam Telecom UK Ltd	101,011
Spring Mobil AB	50,110
Teleware plc	1,001,880

Source: OFCOM

## Banking

The Bank of England forms the central bank in the UK and regulates the UK banking market. Until the early 1990s, the 'Big Four': Barclays Bank, Lloyds Bank, Midland Bank and National Westminster Bank had dominated I-O group 100 (banking and finance) for decades.

Table 16 shows the largest UK banks in 2004. In the UK, there are very few small banks and independent specialist banks.

Table 16  
Largest UK banks in 2004

Name of business	Total assets as at 31 December 2004 (£ million)
HSBC	662,710
Royal Bank of Scotland	583,467
Barclays Bank	522,089
HBOS	442,881
Lloyds TSB	279,843
Standard Chartered	73,543
Alliance & Leicester	49,967
Northern Rock	42,790
Bradford & Bingley	35,458

Note: Abbey is not in the list as it is owned by Banco Santander, a company based in Spain.

Since the early 1990s, a number of building societies have converted into banks, reducing the industry's concentration ratios, but the large banks have become much bigger through mergers and takeovers. Examples of large mergers and takeovers include:

- Banco Santander and Abbey in 2004
- Barclays and Woolwich in 2000
- Halifax and Bank of Scotland in 2001

- HSBC and Midland in 1992
- Lloyds and Cheltenham & Gloucester in 1995
- Lloyds and TSB in 1995
- Royal Bank of Scotland and National Westminster in 2000

The banking industry has also expanded through telephone and Internet banking as well as developing an overseas presence in many countries, new products and diversifying into products sold by other parts of the financial services industry through takeovers. For example:

- Bank of Ireland's takeover of Bristol & West Building Society in 1997
- Halifax's takeover of Birmingham Midshires Building Society in 1999
- Lloyds TSB Bank's purchase of Scottish Widows (a life assurance company) in 2000

Abbey National was one of the first building societies to demutualise and became a public limited company in 1989. In the years which followed, Abbey National pursued growth and diversification by acquiring other businesses, for example:

- Scottish Mutual in 1992
- National & Provincial Building Society in 1995
- Scottish Provident in 2001

Scottish Mutual and Scottish Provident, both life assurance companies, demutualised before being taken over and enabled Abbey National to pursue the bancassurance model. Abbey National was rebranded as Abbey in 2003.

A number of UK banks are owned by overseas banks: Abbey is owned by Banco Santander; and both Clydesdale Bank and Yorkshire Bank are owned by National Australia Bank.

## Building societies

The Building Society movement started in 1775, and peaked at around 1,700 societies in the early twentieth century. The number of UK building societies classified to I-O group 100 (banking and finance) has been declining for over several decades to around 60 in 2004.

Table 17 shows the ten largest UK building societies in 2005.

In the 1980s, various financial deregulation measures were implemented, allowing building societies to offer the same services as banks. Some of the largest building societies demutualised and became banks, and in some cases, were taken over by other banks.

Demutualisations have contributed to reducing the industry's concentration ratios as the remaining building societies are small in size. Examples of these conversions include:

- Abbey National in 1989
- Alliance and Leicester in 1997
- Bradford and Bingley in 2000

Table 17  
Ten largest UK building societies in 2005

Name of business	Total group assets as at June 2005 (£ million)
1 Nationwide	111,592
2 Britannia	23,298
3 Portman	15,505
4 Yorkshire	15,034
5 Coventry	10,500
6 Chelsea	8,868
7 Skipton	8,137
8 Leeds & Holbeck	6,129
9 West Bromwich	5,044
10 Derbyshire	4,407

Source: Building Societies Association

- Halifax in 1997
- Northern Rock in 1997
- Woolwich in 1997

Many building societies have merged with other building societies, increasing the industry's concentration ratios, or diversified into other activities. For example, before demutualisation, Halifax merged with the Leeds Permanent Building Society in 1995 and, in 1996, Halifax diversified by taking over Clerical Medical (a pension fund manager), resulting in an enlarged financial organisation. Halifax became the largest UK building society at the time.

### Accountancy services

In I-O group 110 (accountancy services), the original 'Big Eight' accountancy firms from the early 1990s have undergone a number of mergers and takeovers, and have become the 'Big Four': Ernst & Young; PricewaterhouseCoopers; Deloitte and KPMG, handling the vast majority of audits for the largest publicly traded corporations.

Some of these businesses divested themselves of their consultancy businesses and, in 2006, have a smaller presence in the consultancy market. However, the 'Big Four' have a dominant market share in auditing, corporate finance and market recovery.

The accountancy industry is heterogenous in business types as it not only features some very large players, but also includes a large number of small self-employed businesses, sole proprietors and partnerships.

Table 18 shows the ten largest UK accountancy businesses in 2005.

Table 18  
Ten largest UK accountancy businesses in 2005

Name of business	UK fee income (£ million)
1 PricewaterhouseCoopers LLP	1,568
2 Deloitte	1,350
3 KPMG LLP	1,066
4 Ernst & Young LLP	828
5 Grant Thornton UK LLP	254
6 BDO Stoy Hayward	210
7 Baker Tilly	172
8 Smith & Williamson	127
9 PKF (UK) LLP	113
10 Tenon Group	95

Source: Accountancy Age Top 50

### Privatisations

Table 19 lists many industries and companies in the UK which have undergone privatisation and non-consolidation between 1979 and the mid-1990s, resulting in a fall in the industries' concentration ratios. Privatisation programmes took place in many countries and varied between each country according to their historical and political circumstances.

In the UK, many privatisations included industries with public utilities or natural monopoly characteristics, leading to the creation of regulatory bodies to monitor competition. Examples include:

- gas and electricity companies by the Office for Gas and Electricity Markets regulator (OFGEM)
- railway companies by the Office of Rail Regulation (ORR)
- water and sewerage companies by the Office of Water Services regulator (OFWAT)

The businesses listed in Table 19 cover a range of activities such as manufacturing, utilities, transport, telecommunications, services and infrastructure. Some of these businesses have undergone subsequent mergers and takeovers generating a rise in their respective industries' concentration ratios.

Monopoly suppliers such as the utilities, I-O groups 85 (electricity), 86 (gas), 87 (water) and 93 (railways), previously classified to the public corporations sector, have been dismantled to form a host of private companies, thereby reducing the industries' concentration ratios. In some cases, the non-consolidation of businesses generated new businesses classified to different I-O industry groups. For example, the privatisation of the railways industry in the mid-1990s was split across various I-O industry groups:

- 25 passenger train operating companies (I-O group 93)
- six freight services companies (I-O group 93)
- three railway rolling-stock leasing companies (I-O group 106)

Table 19  
Major privatisations in the UK

Year(s)	Activity	Name
1979, 83, 87	Oil	British Petroleum
1981, 83, 85	Telecom	Cable & Wireless
1981, 85	Aerospace	British Aerospace
1982	Chemicals	Amersham International
1982	Road haulage	National Freight Corporation
1982, 85	Oil	Britoil
1983, 84	Hotels	British Rail Hotels
1983, 84	Port operator	Associated British Ports
1984	Oil	Enterprise Oil
1984	Ferry operator	Sealink
1984, 91, 93	Telecom	British Telecom
1984	Manufacturer	Jaguar
1985	Services	BTG
1985, 89	Manufacturer	British Shipbuilders and Naval Dockyards
1986	Banking	TSB
1986	Gas supply	British Gas
1986, 88	Bus operator	National Bus Company subsidiaries
1987	Airline operator	British Airways
1987	Manufacturer	Rolls Royce
1987	Manufacturer	Royal Ordnance
1987	Airport operator	British Airports Authority
1987	Manufacturer	Unipart
1987	Manufacturer	Leyland Bus
1987	IT	Istel
1987	Manufacturer	Leyland Truck and Freight Rover
1988	Manufacturer	Rover Group
1988	Catering	Travellers Fare
1988	Steel producer	British Steel
1989	Finance	General Practice Finance Corporation
1989	Water	Water and sewerage companies in England and Wales
1989	Manufacturer	British Rail Engineering Ltd
1990	Banking	Girobank
1990, 91	Bus operator	Scottish Transport Group subsidiary bus companies
1990, 91	Electricity	Electricity distribution and supply companies in England and Wales
1991	Electricity	Scottish Power and Scottish Hydro-Electric
1991, 95	Electricity	National Power and PowerGen
1992	Port operator	Forth Ports
1992	Construction	PSA Projects
1992 to 1997	Port operators	Some Trust Ports in Great Britain
1993	Property	PSA Building Management
1993	Electricity	Northern Ireland Electricity
1994	Coal	British Coal
1994, 95	Bus operators	London Buses
1995	Leasing	Railway rolling-stock companies
1996	Publisher	HM Stationery Office
1996	Track operator	Railtrack
1996	Nuclear	British Energy
1996	Engineering	AEA Technology
1996, 97	Train operators	Train operating companies
2001	Air-traffic control	National Air Traffic Services

Source: See 'Source of information'

- one track infrastructure company (I-O group 97)
- numerous rail maintenance businesses and other specialised activities

Many privatised businesses have since made substantial reductions in the numbers employed. For example, BT reduced its workforce from over 238,000 in 1984 to fewer than 125,000 in 1999 before the group was split into various parts. British Gas similarly reduced its workforce from around 92,000 in 1986 to 70,000 by 1994.

Table 20 shows the proceeds from privatisation in the UK from 1979 to 1998. UK government receipts from privatisation in 1979/80 were £377 million, and peaked at £8,184 million in 1991/92 before declining to £1,800 million in 1997/98. These estimates exclude any sales, for example, the Rover Group sale to British Aerospace in 1988, council house sales, and management buyouts of subsidiaries, for example, warship yards of British Shipbuilders.

Table 20  
UK government receipts from privatisation  
proceeds from 1979/80 to 1997/98

Financial year	Proceeds (£ million)	Financial year	Proceeds (£ million)
1979/80	377	1989/90	4,225
1980/81	210	1990/91	5,347
1981/82	493	1991/92	7,925
1982/83	455	1992/93	8,184
1983/84	1,139	1993/94	5,460
1984/85	2,050	1994/95	6,300
1985/86	2,706	1995/96	2,400
1986/87	4,458	1996/97	4,400
1987/88	5,140	1997/98	1,800
1988/89	7,069		

Source: HM Treasury

## Electricity industry

The privatisation of the electricity industry began in the early 1990s and was introduced with a degree of vertical integration, leading to substantial changes in the industry's concentration ratios for I-O group 85 (electricity).

Before privatisation, the electricity industry consisted of the Central Electricity Generating Board (CEGB), responsible for generation and transmission in England and Wales, and 12 Area Boards responsible for distribution. In Scotland, the South of Scotland Electricity Board and the North of Scotland Hydro Board, were responsible for generation, transmission and distribution as was the Northern Ireland Electricity Board in Northern Ireland.

In England and Wales, before electricity privatisation, the CEGB was restructured into separate generation, transmission and distribution businesses. The previous Area Boards became regional electricity distribution companies (RECs) which were privatised as separate businesses.

Customers were able to purchase electricity from any REC. Major electricity generation companies were also created: PowerGen and National Power.

The National Grid Company (NGC), owner and operator of the national electricity transmission grid, also became an independent regulated public company after all the RECs sold off their joint ownership of NGC.

In Scotland, the privatisation of the electricity companies remained vertically integrated, with Scottish Power and Scottish Hydro-Electric retaining the control of both generation and supply.

Table 21 shows a summary of the pre-privatisation and post-privatisation businesses. Since privatisation, there has been substantial restructuring of the industry, including demergers, mergers and takeovers involving UK and non-UK businesses as well as diversification into other industries, products and expansion overseas.

Table 21  
Privatisation of the UK electricity industry

Pre-privatisation	Post-privatisation
<b>England and Wales</b>	
Central Electricity Generating Board	<i>Distribution (December 1990)</i> Eastern Electricity East Midlands Electricity London Electricity Manweb Midlands Electricity Northern Electric North Western Electricity (NORWEB) SEEBOARD Southern Electricity South Wales Electricity (SWALEC) South Western Electricity Yorkshire Electricity
	<i>Generation (March 1991)</i> National Power PowerGen
	<i>Transmission (December 1995)</i> National Grid
<b>Scotland</b>	
North of Scotland Hydro Board	Scottish Hydro-Electric ( <i>June 1991</i> )
South of Scotland Electricity Board	Scottish Power ( <i>June 1991</i> )
<b>Northern Ireland</b>	
Northern Ireland Electricity Service	Northern Ireland Electricity ( <i>June 1993</i> )

Note: The above does not reflect the nuclear industry.

Since privatisation, the RECs have been able to compete as suppliers out of their main area, for example, by providing billing and meter reading services and contracting with the local electricity distributor. Further economics of scale have been achieved by some businesses by moving into the supply of other services such as gas, water, telecommunications and financial services. There have also been several mergers and takeovers between businesses involved in providing these types of products.

In 2002, the National Grid Group merged with Lattice, who owned the UK gas distribution network, Transco.

Competition from new businesses in the UK has prompted the generation companies to expand overseas and undertake further restructuring. In 2000, for example, National Power demerged into International Power and Innogy Holdings. Innogy Holdings covers plant, energy trading and, having acquired Yorkshire Electricity (an REC) in 2001, now acts as a major electricity supplier.

### Water supply and sewerage companies

Since 1974, the water industry in England and Wales has been dominated by ten Regional Water Authorities (RWAs). Each of the RWAs covers a river basin area and is appointed by the government to be responsible for water quality, water supply and sanitation throughout their area.

The RWAs in England and Wales were privatised in 1989 under the 1988 Water Act, and retained ownership of the entire water system and all other assets. The Act gave them 25-year concessions for sanitation and water supply, and protected them against any possibility of competition. The government also wrote off all the debts of the water companies before privatisation, worth around £5 billion, as well as providing the companies with a 'green dowry' totalling around £1.5 billion. These arrangements did not cover the existing small private companies in this industry.

In Scotland and Northern Ireland, the water supply and sewerage companies are operated by, and remain under the control of, public corporations.

Table 22 shows the RWAs and the split of their turnover between water supply and sewerage activities. In the Input-Output Annual Supply and Use Tables, these activities fall into two I-O groups: 87 (water supply) and 119 (sewerage and sanitary services). The former group is dominated by the ten RWAs, whereas the latter group is much less concentrated. I-O group 119 (sewerage and sanitary services) contains sewerage divisions of the RWAs as well as a wide range of other companies.

The privatisation process also created three regulators:

- Drinking Water Inspectorate, to monitor water quality
- National Rivers Authority (now the Environment Agency), to monitor river and environmental pollution
- Office of Water Services, to set price limits on water charges and encourage the companies to be more efficient

Table 22  
**Ten privatised Regional Water Authorities in England and Wales**

Name of business	Sales (£ million) in 2005	
	Water supply	Sewerage
Anglian	309.6	479.9
Dŵr Cymru (Welsh)	227.1	259.3
Northumbrian	275.9	211.8
Severn Trent	484.6	506.3
Southern	120.8	346.8
South West	124.3	173.9
Thames	508.0	634.2
United Utilities	529.6	596.6
Wessex	97.8	202.3
Yorkshire	315.6	324.5

Note: United Utilities Water formerly North West Water

Source: OFWAT

Table 23  
**Ownership of Regional Water Authorities and other water companies**

#### Ownership of Regional Water Authorities

Company	Per cent	Parent Group	Country
Anglian	100	Anglian Water	UK
Dŵr Cymru (Welsh)	100	Glas Cymru Cyfyngedig	UK
Northumbrian	100	Northumbrian Water	UK
Severn Trent	100	Severn Trent	UK
Southern	100	Southern Water Capital	UK
South West	100	Pennon	UK
Thames	100	RWE	Germany
United Utilities	100	United Utilities	UK
Wessex	100	YTL Power International	Malaysia
Yorkshire	100	Kelda	UK

#### Ownership of other water companies

Company	Per cent	Parent Group	Country
Bournemouth and West Hampshire	50	Biwater	UK
Bristol	50	Nuon	Holland
	100	Bristol Water Core Holdings	UK
Cambridge	100	Cheung Kong Infrastructure	Hong Kong
Dee Valley	100	Dee Valley Water	UK
Folkstone & Dover	100	Veolia	France
Mid Kent	50	HDF Int'l Holdings	Australia
	50	UTA Int'l Holdings	Australia
Portsmouth	100	South Downs Capital	UK
South East	100	Macquarie Bank	Australia
South Staffordshire	100	Arcapita	Bahrain
Sutton & East Surrey	100	Aqueduct Capital (Deutsche Bank)	Germany
Tendring Hundred	100	Veolia	France
Three Valleys	100	Veolia	France

Note: United Utilities Water formerly North West Water

Source: OFWAT

Since their formation, the ten RWAs have diversified their activities through expansion internationally and into other sectors.

The ten RWAs were protected from takeover by other companies for five years by the government's golden share. The smaller private water companies were subject to takeovers and nearly all are now owned by multinationals. Since the five-year protection period expired, some of the RWAs have also been taken over by multinational companies.

Table 23 shows the ownership of the RWAs and the other water companies as at the end of 2005.

In 2005, the largest UK waste management-only companies include Biffa, Veolia, Cleanaway, Sita and Waste Recycling Group, all of whom have over 5 per cent of market share by turnover.

### Changes in the largest UK publicly quoted companies

Under the Companies Act 1985, companies in the UK are treated as either a private (limited) company or a public (plc) company. These types of companies are distinguished in terms of the different standards of regulation applied in the Companies Act 1985 and other UK legislation.

Public companies are required to meet a number of requirements, for example, they must have:

- a minimum capital investment of £50,000
- at least two shareholders
- at least two directors, one of whom may be the company secretary
- a trading certificate, which allows them to do business and borrow capital

Although it is not compulsory for a public company to float its shares, some retain ownership of all their shares thereby maintaining the plc designation for the extra financial status. Those companies which choose to float their shares have them traded on either the London Stock Exchange or the Alternative Investments Market. Therefore, private companies form the category which represents the remainder of companies.

Market capitalisation is another approach which allows ranking businesses by size, and is the total value at market prices of all the shares in issue for a company, or a stock market, or a sector of the stock market. It is calculated as follows:

$$\text{Market capitalisation} = \frac{\text{Share price}}{\text{price}} \times \text{Total number of shares in issue}$$

Table 24 shows the 15 largest UK companies in terms of market capitalisation as represented on the Financial Times Stock Exchange (FTSE 100) of publicly quoted companies on particular dates from 1992 to 2006. The table also shows that, between 1992 and 2006, the picture of the largest UK publicly quoted companies in terms of market capitalisation has changed considerably.

Table 24  
**Top 15 FTSE 100 companies by market capitalisation**

Name of business	Market capitalisation (£ million) (as at 5 January 1992)	Name of business	Market capitalisation (£ million) (as at 2 January 2000)
1 Glaxo Holdings	25,641	1 BP Amoco	121,275
2 British Telecom	20,509	2 British Telecom	98,435
3 Shell	16,509	3 Vodafone AirTouch	95,417
4 British Petroleum	15,664	4 HSBC	72,983
5 British Gas	10,740	5 Glaxo Wellcome	63,700
6 Guinness	10,580	6 Shell Transport	51,151
7 Hanson	9,782	7 Astra Zeneca	45,582
8 Wellcome	9,331	8 SmithKline Beecham	44,366
9 BAT Industries	9,084	9 Lloyds TSB	42,403
10 Grand Metropolitan	9,070	10 Marconi	29,800
11 ICI	8,482	11 Barclays	26,623
12 BTR	7,904	12 Cable & Wireless	25,532
13 Marks & Spencer	7,701	13 Orange	25,080
14 Unilever	7,325	14 Prudential	23,814
15 Cable & Wireless	6,440	15 National Westminster	22,211

Name of business	Market capitalisation (£ million) (as at 2 January 2005)	Name of business	Market capitalisation (£ million) (as at 1 January 2006)
1 BP	108,846	1 BP	127,864
2 HSBC	98,194	2 HSBC	105,662
3 Vodafone	92,754	3 GlaxoSmithKline	85,469
4 GlaxoSmithKline	71,729	4 Vodafone	77,330
5 Royal Bank of Scotland	55,547	5 Royal Dutch Shell A	69,699
6 Shell Transport	42,734	6 Royal Bank of Scotland	55,860
7 Barclays	37,676	7 Royal Dutch Shell B	51,268
8 HBOS	33,262	8 BSCH	47,501
9 Astra Zeneca	31,152	9 Astra Zeneca	44,690
10 Lloyds TSB	26,456	10 Barclays	39,478
11 Tesco	24,936	11 HBOS	38,039
12 Diageo	22,465	12 Anglo American	29,563
13 British American Tobacco	19,220	13 Rio Tinto	28,362
14 Anglo American	18,404	14 Lloyds TSB	27,358
15 British Telecom	17,323	15 British American Tobacco	27,314

Source: *The Sunday Times*

Globalisation, outsourcing, cross-border takeovers and mergers, together with the expansion of the business and financial industries and the contraction of the manufacturing industry, are key factors in the changing picture of the UK economy, stock market capitalisation and changing industry concentration ratios.

Table 25 shows that in 1992, the top 15 FTSE 100 companies were dominated by manufacturers and oil and gas producers. In 1992, no banks appeared in the list. At the end of 2005, global businesses dominated the list, including banks which occupy six of the 15 places.

In the Input-Output Annual Supply and Use Tables, the contribution of the manufacturing industry in terms of GVA at current basic prices as a proportion of the whole economy has fallen from 21.1 per cent in 1992 to less than

14.1 per cent in 2004. Table 25 shows that the relative decline of manufacturing in the UK economy can be seen by the fall in the number of manufacturers in the top 15 FTSE 100 companies from ten to five between 1992 and 2006.

Table 25  
**Composition of the top 15 FTSE 100 companies**

Type of company	1992 January	2006 January
Banks	0	6
Manufacturers	10	5
Oil and gas	3	3
Retailers	1	0
Services	1	1

## Largest UK private companies

There are many large private businesses in the UK. Some of these were previously publicly quoted companies but taken into private ownership, for example, through management buyouts by individuals, small consortia, venture capitalists or even private equity firms.

Many private businesses have remained in private ownership throughout their existence. Private businesses tend to be much smaller in size than publicly quoted companies.

The largest UK private company in 2005 was Coral Eurobet, a betting and gaming operator owned by a private equity firm, with turnover of over £5 billion, overtaking the John Lewis Partnership which had turnover of nearly £5 billion, and had been the largest private company for a number of years.

Table 26 shows the largest UK private companies in 2004.

Table 26  
Largest UK private companies in 2004

	Name of business	Activity
1	Coral Eurobet	Betting shop operator
2	John Lewis Partnership	Retailer
3	Palmer & Harvey	Food wholesaler
4	Booker	Cash and carry operator
5	Stemcor	Steel trader
6	Ineos Group	Chemicals maker
7	Caudwell Holdings	Mobile phone retailer
8	John Swire & Sons	Conglomerate
9	Debenhams	Department store operator
10	SCH	IT systems integrator
11	Littlewoods	Retailer
12	Grampian Country Food	Food producer
13	RHM	Food producer
14	Arcadia Group	Clothing retailer
15	Virgin Atlantic	Airline

Source: *The Sunday Times KPMG Top Track 100*

## Notes for interpreting charts and tables in this article

The concentration ratios shown in this article are only available for the latest year 2004. The equivalent tables for earlier years have not been revised in line with the latest ABI and Input-Output Annual Supply and Use Tables. Other key points to note include:

- all the top five and top 15 business percentages and rankings are based on ABI data for the UK
- for some I-O industry groups: they may not be covered adequately by the ABI; estimates are supplemented from other sources; and for a few industries there are concerns over the quality of the ABI business data. In these cases, the industry data are not shown and are replaced with 'n/a' in the table

- the industry definitions shown in Figures 1 to 3 exclude the 12 industries shown as 'n/a' in Appendix 1
- estimates for market producers have been calculated by deducting estimates for non-market producers (central government, local government and non-profit institutions serving households) from the whole economy estimates. This provides a closer comparison with the ABI estimates used to produce Input-Output Annual Supply and Use Tables
- in Appendix 1, FISIM is not allocated either to market producers or non-market producers, nor to industry or sector
- estimates of GVA and total output at current basic prices by type of producer are in £ million
- the contribution of the top five and top 15 businesses is shown in percentage terms
- the contribution of the top five ABI contributors in each industry to GVA and total output at current basic prices have been ranked in order, with the greatest contribution recorded as 1 and the lowest as 111.

## Acknowledgements

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## Appendix 1

## Concentration ratios for businesses by industry in 2004

UK Annual Business Inquiry						
Industry	Top five businesses as a percentage of the total		Top 15 businesses as a percentage of the total		Ranking positions for the top five businesses	
	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added
1 Agriculture	n/a	n/a	n/a	n/a	n/a	n/a
2 Forestry	48	39	51	43	29	45
3 Fishing	16	14	19	17	79	87
4 Coal extraction	79	71	92	87	7	11
5 Oil & gas extraction	57	59	82	84	22	22
6 Metal ores extraction	n/a	n/a	n/a	n/a	n/a	n/a
7 Other mining & quarrying	43	45	71	67	35	37
8 Meat processing	17	22	31	37	78	71
9 Fish & fruit processing	36	39	50	56	44	46
10 Oils & fats	88	84	95	96	3	6
11 Dairy products	32	37	57	64	50	47
12 Grain milling & starch	31	44	49	66	53	38
13 Animal feed	36	42	49	58	46	41
14 Bread, biscuits etc.	17	17	31	34	77	78
15 Sugar	99	100	99	100	1	2
16 Confectionery	81	88	91	94	5	4
17 Other food products	39	42	59	62	40	40
18 Alcoholic beverages	50	68	78	99	28	17
19 Soft drinks & mineral waters	75	76	93	90	10	8
20 Tobacco products	99	100	99	100	2	3
21 Textile fibres	29	34	56	65	55	51
22 Textile weaving	26	31	48	53	60	56
23 Textile finishing	14	11	31	22	83	95
24 Made-up textiles	17	17	32	32	75	82
25 Carpets & rugs	27	35	50	56	58	49
26 Other textiles	15	19	28	30	81	75
27 Knitted goods	32	30	43	44	49	57
28 Wearing apparel & fur products	14	10	25	18	87	100
29 Leather goods	30	27	48	40	54	62
30 Footwear	25	31	50	48	64	55
31 Wood & wood products	9	7	19	14	100	104
32 Pulp, paper & paperboard	21	24	51	52	69	69
33 Paper & paperboard products	34	21	42	31	47	72
34 Printing & publishing	12	12	21	22	93	92
35 Coke ovens, refined petroleum & nuclear fuel	66	67	97	94	15	18
36 Industrial gases & dyes	57	77	87	88	21	7
37 Inorganic chemicals	57	51	80	81	23	29
38 Organic chemicals	69	55	87	79	13	25
39 Fertilisers	72	70	87	86	11	14
40 Plastics & synthetic resins etc.	24	27	46	50	66	61
41 Pesticides	75	71	93	88	9	12
42 Paints, varnishes, printing ink etc.	37	42	52	56	41	42
43 Pharmaceuticals	57	63	74	81	24	20
44 Soap & toilet preparations	40	43	64	66	39	39
45 Other chemical products	18	28	39	49	74	59
46 Man-made fibres	79	85	97	98	6	5
47 Rubber products	45	40	60	57	32	43
48 Plastic products	4	5	10	11	111	110
49 Glass & glass products	26	28	49	52	59	60
50 Ceramic goods	31	33	51	56	52	53

## Appendix 1 - continued

## Concentration ratios for businesses by industry in 2004

UK Annual Business Inquiry						
Industry	Top five businesses as a percentage of the total		Top 15 businesses as a percentage of the total		Ranking positions for the top five businesses	
	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added
51 Structural clay products	68	70	82	83	14	15
52 Cement, lime & plaster	71	74	94	93	12	10
53 Articles of concrete, stone etc.	25	24	43	43	65	70
54 Iron & steel	61	48	78	66	18	34
55 Non-ferrous metals	14	25	36	47	86	67
56 Metal castings	13	14	28	29	88	86
57 Structural metal products	6	6	12	11	105	105
58 Metal boilers & radiators	45	51	61	62	31	28
59 Metal forging, pressing etc.	4	3	7	7	110	111
60 Cutlery, tools etc.	11	10	19	18	95	98
61 Other metal products	14	11	25	21	84	97
62 Mechanical power equipment	29	26	41	40	56	66
63 General purpose machinery	8	9	20	18	103	102
64 Agricultural machinery	26	34	32	46	63	52
65 Machine tools	26	27	40	39	62	63
66 Special purpose machinery	20	15	34	26	71	84
67 Weapons & ammunition	77	70	95	93	8	13
68 Domestic appliances nec	44	51	66	67	34	30
69 Office machinery & computers	37	61	50	76	42	21
70 Electric motors & generators etc.	21	17	37	35	68	80
71 Insulated wire & cable	58	51	74	64	20	26
72 Electrical equipment nec	13	14	27	29	89	85
73 Electronic components	21	28	56	51	70	58
74 Transmitters for TV, radio & phone	51	48	69	66	27	32
75 Receivers for TV & radio	27	24	54	43	57	68
76 Medical & precision instruments	14	17	24	26	85	83
77 Motor vehicles	34	34	54	50	48	50
78 Shipbuilding & repair	43	48	68	68	36	33
79 Other transport equipment	59	46	74	71	19	35
80 Aircraft & spacecraft	44	56	75	77	33	24
81 Furniture	5	5	13	8	108	108
82 Jewellery & related products	16	13	25	19	80	90
83 Sports goods & toys	23	27	38	38	67	64
84 Miscellaneous manufacturing nec & recycling	26	20	30	25	61	74
85 Electricity production & distribution	55	64	86	91	26	19
86 Gas distribution	82	100	87	101	4	1
87 Water supply	55	57	92	92	25	23
88 Construction	5	5	9	9	106	109
89 Motor vehicle distribution & repair, automotive fuel retail	15	18	26	30	82	76
90 Wholesale distribution	6	10	11	14	104	99
91 Retail distribution	20	21	32	34	72	73
92 Hotels, catering, pubs etc.	13	13	21	23	92	88
93 Railway transport	41	50	88	95	37	31
94 Other land transport	13	18	28	26	90	77
95 Water transport	41	45	56	63	38	36
96 Air transport	n/a	n/a	n/a	n/a	n/a	n/a
97 Ancillary transport services	13	32	28	45	91	54
98 Postal & courier services	65	74	75	84	16	9
99 Telecommunications	61	69	75	82	17	16
100 Banking & finance	n/a	n/a	n/a	n/a	n/a	n/a

## Appendix 1 - continued

## Concentration ratios for businesses by industry in 2004

Industry	UK Annual Business Inquiry					
	Top five businesses as a percentage of the total		Top 15 businesses as a percentage of the total		Ranking positions for the top five businesses	
	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added
101 Insurance & pension funds	n/a	n/a	n/a	n/a	n/a	n/a
102 Auxiliary financial services	n/a	n/a	n/a	n/a	n/a	n/a
103 Owning & dealing in real estate	n/a	n/a	n/a	n/a	n/a	n/a
104 Letting of dwellings	n/a	n/a	n/a	n/a	n/a	n/a
105 Estate agent activities	n/a	n/a	n/a	n/a	n/a	n/a
106 Renting of machinery etc.	10	13	22	26	98	89
107 Computer services	19	17	29	28	73	79
108 Research & development	37	51	51	70	43	27
109 Legal activities	9	9	17	17	101	101
110 Accountancy services	36	40	47	50	45	44
111 Market research, management consultancy	10	13	16	19	96	91
112 Architectural activities & technical consultancy	8	12	15	20	102	93
113 Advertising	10	12	21	20	97	94
114 Other business services	5	6	10	12	107	106
115 Public administration & defence	n/a	n/a	n/a	n/a	n/a	n/a
116 Education	10	8	15	14	99	103
117 Health & veterinary services	17	17	31	29	76	81
118 Social work activities	11	11	15	15	94	96
119 Sewage & sanitary services	31	36	66	73	51	48
120 Membership organisations	n/a	n/a	n/a	n/a	n/a	n/a
121 Recreational services	47	26	92	38	30	65
122 Other service activities	4	5	8	8	109	107
123 Private households with employed persons	n/a	n/a	n/a	n/a	n/a	n/a

The lowest rank is 111 and not 123 due to a number of industries treated as not available.

## Appendix 1 - continued

## Concentration ratios for businesses by industry in 2004

		UK I-O Supply and Use Tables							£ million		
		All producers		Non-market producers			Market producers				
				Central government	Local government	NPISHs					
				Gross Value	Gross Value	Gross Value	Gross Value	Gross Value			
Industry		Output	Added	Output	Added	Output	Added	Output	Added	Output	Added
1	Agriculture	21 008	9 611	-	-	-	-	-	21 008	9 611	
2	Forestry	859	323	-	-	-	-	-	859	323	
3	Fishing	1 021	389	-	-	-	-	-	1 021	389	
4	Coal extraction	916	385	-	-	-	-	-	916	385	
5	Oil & gas extraction	26 626	19 845	-	-	-	-	-	26 626	19 845	
6	Metal ores extraction	-	-	-	-	-	-	-	-	-	
7	Other mining & quarrying	4 686	1 646	-	-	-	-	-	4 686	1 646	
8	Meat processing	13 088	3 294	-	-	-	-	-	13 088	3 294	
9	Fish & fruit processing	6 290	2 115	-	-	-	-	-	6 290	2 115	
10	Oils & fats	1 171	235	-	-	-	-	-	1 171	235	
11	Dairy products	5 890	1 266	-	-	-	-	-	5 890	1 266	
12	Grain milling & starch	3 372	1 142	-	-	-	-	-	3 372	1 142	
13	Animal feed	3 098	695	-	-	-	-	-	3 098	695	
14	Bread, biscuits etc.	7 156	3 333	-	-	-	-	-	7 156	3 333	
15	Sugar	1 351	376	-	-	-	-	-	1 351	376	
16	Confectionery	4 254	2 271	-	-	-	-	-	4 254	2 271	
17	Other food products	6 246	2 609	-	-	-	-	-	6 246	2 609	
18	Alcoholic beverages	6 841	2 780	-	-	-	-	-	6 841	2 780	
19	Soft drinks & mineral waters	3 451	1 032	-	-	-	-	-	3 451	1 032	
20	Tobacco products	2 096	1 140	-	-	-	-	-	2 096	1 140	
21	Textile fibres	501	185	-	-	-	-	-	501	185	
22	Textile weaving	852	318	-	-	-	-	-	852	318	
23	Textile finishing	584	267	-	-	-	-	-	584	267	
24	Made-up textiles	1 743	695	-	-	-	-	-	1 743	695	
25	Carpets & rugs	779	283	-	-	-	-	-	779	283	
26	Other textiles	1 120	441	-	-	-	-	-	1 120	441	
27	Knitted goods	775	326	-	-	-	-	-	775	326	
28	Wearing apparel & fur products	3 674	1 308	-	-	-	-	-	3 674	1 308	
29	Leather goods	472	184	-	-	-	-	-	472	184	
30	Footwear	325	163	-	-	-	-	-	325	163	
31	Wood & wood products	7 050	2 904	-	-	-	-	-	7 050	2 904	
32	Pulp, paper & paperboard	2 969	918	-	-	-	-	-	2 969	918	
33	Paper & paperboard products	8 818	2 765	-	-	-	-	-	8 818	2 765	
34	Printing & publishing	33 673	16 475	-	-	-	-	-	33 673	16 475	
35	Coke ovens, refined petroleum & nuclear fuel	18 344	2 420	-	-	-	-	-	18 344	2 420	
36	Industrial gases & dyes	2 499	928	-	-	-	-	-	2 499	928	
37	Inorganic chemicals	1 564	421	-	-	-	-	-	1 564	421	
38	Organic chemicals	7 586	1 665	-	-	-	-	-	7 586	1 665	
39	Fertilisers	912	174	-	-	-	-	-	912	174	
40	Plastics & synthetic resins etc.	4 636	1 146	-	-	-	-	-	4 636	1 146	
41	Pesticides	1 035	400	-	-	-	-	-	1 035	400	
42	Paints, varnishes, printing ink etc.	3 101	1 124	-	-	-	-	-	3 101	1 124	
43	Pharmaceuticals	14 753	6 522	-	-	-	-	-	14 753	6 522	
44	Soap & toilet preparations	5 407	1 970	-	-	-	-	-	5 407	1 970	
45	Other chemical products	4 598	1 693	-	-	-	-	-	4 598	1 693	
46	Man-made fibres	499	190	-	-	-	-	-	499	190	
47	Rubber products	3 224	1 407	-	-	-	-	-	3 224	1 407	
48	Plastic products	16 529	6 417	-	-	-	-	-	16 529	6 417	
49	Glass & glass products	2 947	1 316	-	-	-	-	-	2 947	1 316	
50	Ceramic goods	1 553	807	-	-	-	-	-	1 553	807	

## Appendix 1 - continued

## Concentration ratios for businesses by industry in 2004

Industry	UK I-O Supply and Use Tables									£ million	
	All producers		Non-market producers						Market producers		
			Central government		Local government		NPISHs				
	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	
51 Structural clay products	745	405	-	-	-	-	-	-	745	405	
52 Cement, lime & plaster	1 016	462	-	-	-	-	-	-	1 016	462	
53 Articles of concrete, stone etc.	6 559	2 696	-	-	-	-	-	-	6 559	2 696	
54 Iron & steel	8 411	1 445	-	-	-	-	-	-	8 411	1 445	
55 Non-ferrous metals	4 442	1 046	-	-	-	-	-	-	4 442	1 046	
56 Metal castings	1 535	678	-	-	-	-	-	-	1 535	678	
57 Structural metal products	6 998	2 683	-	-	-	-	-	-	6 998	2 683	
58 Metal boilers & radiators	1 769	746	-	-	-	-	-	-	1 769	746	
59 Metal forging, pressing etc.	9 334	4 881	-	-	-	-	-	-	9 334	4 881	
60 Cutlery, tools etc.	2 143	1 207	-	-	-	-	-	-	2 143	1 207	
61 Other metal products	5 615	2 411	-	-	-	-	-	-	5 615	2 411	
62 Mechanical power equipment	6 829	2 715	-	-	-	-	-	-	6 829	2 715	
63 General purpose machinery	9 958	4 181	-	-	-	-	-	-	9 958	4 181	
64 Agricultural machinery	1 572	390	-	-	-	-	-	-	1 572	390	
65 Machine tools	1 256	650	-	-	-	-	-	-	1 256	650	
66 Special purpose machinery	6 340	2 460	-	-	-	-	-	-	6 340	2 460	
67 Weapons & ammunition	2 259	712	-	-	-	-	-	-	2 259	712	
68 Domestic appliances nec	2 753	1 091	-	-	-	-	-	-	2 753	1 091	
69 Office machinery & computers	7 412	2 074	-	-	-	-	-	-	7 412	2 074	
70 Electric motors & generators etc.	6 020	2 297	-	-	-	-	-	-	6 020	2 297	
71 Insulated wire & cable	1 103	408	-	-	-	-	-	-	1 103	408	
72 Electrical equipment nec	5 270	2 029	-	-	-	-	-	-	5 270	2 029	
73 Electronic components	3 734	1 302	-	-	-	-	-	-	3 734	1 302	
74 Transmitters for TV, radio & phone	3 788	1 145	-	-	-	-	-	-	3 788	1 145	
75 Receivers for TV & radio	2 843	880	-	-	-	-	-	-	2 843	880	
76 Medical & precision instruments	11 461	5 490	-	-	-	-	-	-	11 461	5 490	
77 Motor vehicles	37 931	8 830	-	-	-	-	-	-	37 931	8 830	
78 Shipbuilding & repair	2 828	1 193	-	-	-	-	-	-	2 828	1 193	
79 Other transport equipment	2 595	703	-	-	-	-	-	-	2 595	703	
80 Aircraft & spacecraft	14 500	5 591	-	-	-	-	-	-	14 500	5 591	
81 Furniture	9 005	3 606	-	-	-	-	-	-	9 005	3 606	
82 Jewellery & related products	856	356	-	-	-	-	-	-	856	356	
83 Sports goods & toys	1 054	433	-	-	-	-	-	-	1 054	433	
84 Miscellaneous manufacturing nec & recycling	6 045	2 152	-	-	-	-	-	-	6 045	2 152	
85 Electricity production & distribution	33 361	10 061	-	-	-	-	-	-	33 361	10 061	
86 Gas distribution	12 979	3 886	-	-	-	-	-	-	12 979	3 886	
87 Water supply	4 534	3 156	-	-	-	-	-	-	4 534	3 156	
88 Construction	170 265	64 747	-	-	-	-	-	-	170 265	64 747	
89 Motor vehicle distribution & repair, automotive fuel retail	42 875	21 834	-	-	-	-	-	-	42 875	21 834	
90 Wholesale distribution	99 600	45 903	-	-	-	-	-	-	99 600	45 903	
91 Retail distribution	98 244	59 783	-	-	-	-	-	-	98 244	59 783	
92 Hotels, catering, pubs etc.	70 038	33 074	-	-	-	-	-	-	70 038	33 074	
93 Railway transport	7 597	2 321	-	-	-	-	-	-	7 597	2 321	
94 Other land transport	36 152	19 005	-	-	-	-	-	-	36 152	19 005	
95 Water transport	8 820	3 399	-	-	-	-	-	-	8 820	3 399	
96 Air transport	14 668	6 089	-	-	-	-	-	-	14 668	6 089	
97 Ancillary transport services	47 790	18 703	-	-	-	-	-	-	47 790	18 703	
98 Postal & courier services	14 559	8 466	-	-	-	-	-	-	14 559	8 466	
99 Telecommunications	39 309	21 296	-	-	-	-	-	-	39 309	21 296	
100 Banking & finance	87 954	61 033	-	-	-	-	-	-	87 954	61 033	

## Appendix 1 - continued

## Concentration ratios for businesses by industry in 2004

Industry	UK I-O Supply and Use Tables									£ million	
	All producers		Non-market producers						Market producers		
			Central government		Local government		NPISHs				
	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	Output	Gross Value Added	
101 Insurance & pension funds	54 542	14 298	-	-	-	-	163	86	54 379	14 212	
102 Auxiliary financial services	21 389	10 813	-	-	-	-	-	-	21 389	10 813	
103 Owning & dealing in real estate	29 398	22 922	-	-	-	-	-	-	29 398	22 922	
104 Letting of dwellings	95 578	83 037	-	-	-	-	-	-	95 578	83 037	
105 Estate agent activities	7 289	5 209	-	-	-	-	-	-	7 289	5 209	
106 Renting of machinery etc.	19 157	11 094	-	-	-	-	-	-	19 157	11 094	
107 Computer services	52 118	30 625	-	-	-	-	-	-	52 118	30 625	
108 Research & development	7 241	4 174	-	-	-	-	614	419	6 627	3 755	
109 Legal activities	22 573	14 928	-	-	-	-	-	-	22 573	14 928	
110 Accountancy services	14 158	10 303	-	-	-	-	-	-	14 158	10 303	
111 Market research, management consultancy	23 743	12 677	-	-	-	-	-	-	23 743	12 677	
112 Architectural activities & technical consultancy	32 324	19 261	-	-	-	-	-	-	32 324	19 261	
113 Advertising	9 816	5 797	-	-	-	-	-	-	9 816	5 797	
114 Other business services	69 099	38 343	-	-	-	-	725	431	68 374	37 912	
115 Public administration & defence	111 294	55 280	73 514	31 562	37 780	23 718	-	-	-	-	
116 Education	85 573	61 786	1 266	834	43 743	31 074	21 411	17 507	19 153	12 371	
117 Health & veterinary services	97 042	57 350	77 593	42 921	-	-	2 283	1 045	17 166	13 384	
118 Social work activities	42 824	18 467	1 077	471	24 435	7 468	4 195	2 278	13 117	8 250	
119 Sewage & sanitary services	14 620	7 227	-	-	5 621	1 330	-	-	8 999	5 897	
120 Membership organisations	8 768	6 276	-	-	-	-	4 260	3 206	4 508	3 070	
121 Recreational services	58 371	30 486	3 281	1 090	5 160	1 990	3 551	1 113	46 379	26 293	
122 Other service activities	13 182	6 486	-	-	-	-	282	132	12 900	6 354	
123 Private households with employed persons	5 068	5 068	-	-	-	-	-	-	5 068	5 068	
Total	2 151 833	1 094 330	156 731	76 878	116 739	65 580	37 484	26 217	1 840 879	925 655	
FISIM	-	-50 165	-	-	-	-	-	-	-	-	
Total (including FISIM)		1 044 165									