PA412

1978

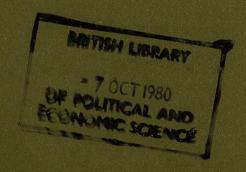
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# **Business Monitor**

Report on the Census of Production

Spinning and doubling on the cotton and flax systems





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Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or O (occasional) or Q (quarterly) or M (monthly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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### **Government Statistical Service**

A service of statistical information and advice is provided to the Government by specialist staffs employed in the statistics division of individual Departments. Statistics are made generally available through their publications and further information and advice on them can be obtained from the Departments concerned.

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# PA412

# **Business Monitor**

A publication of the Government Statistical Service

Report on the Census of Production 1978

Spinning and doubling on the cotton and flax systems

Presented by the Secretary of State for Industry to Parliament in pursuance of the Statistics of Trade Act 1947 (10 & 11 Geo.6 Cha.39 sec 7)

Department of Industry
Business Statistics Office

London: Her Majesty's Stationery Office

Electronic computers

equipment

Radio and electronic components Gramophone records and tape recordings

Radio, radar and electronic capital goods

Electrical appliances primarily for domestic use

Broadcast receiving and sound reproducing

PA365.2

PA367

PA368

			DA 200 1	Flantainel anciement for mater uphigles gugles
PA1001 PA101	Introductory notes Coal mining	711		Electrical equipment for motor vehicles, cycles and aircraft
PA102	Stone and slate quarrying and mining			Primary and secondary batteries Electric lamps, electric light fittings, wiring
PA103 PA104	Chalk, clay, sand and gravel extraction Petroleum and natural gas		FA305.4	accessories, etc.
PA109	Miscellaneous mining and quarrying		PA370	Shipbuilding and marine engineering
PA211	Grain milling		PA380	Wheeled tractor manufacturing
A212	Bread and flour confectionery			Motor vehicle manufacturing
A213	Biscuits		PA381.2 PA382	Trailers, caravans and freight containers  Motor cycle, tricycle and pedal cycle manufacturing
A214 A215	Bacon curing, meat and fish products Milk and milk products		PA382	Aerospace equipment manufacturing and repairing
A215	Sugar		PA384	Locomotives, railway track equipment, railway carriage
A217	Cocoa, chocolate and sugar confectionery			wagons and trams
A218	Fruit and vegetable products		PA390	Engineers' small tools and gauges
A219	Animal and poultry foods		PA391 PA392	Hand tools and implements Cutlery, spoons, forks and plated tableware, etc.
A221	Vegetable and animal oils and fats Margarine		PA393	Bolts, nuts, screws, rivets, etc.
	Starch and miscellaneous foods		PA394	Wire and wire manufactures
A231	Brewing and malting		PA395	Cans and metal boxes
A232	Soft drinks		PA396	Jewellery and precious metals
	Spirit distilling and compounding			Metal furniture Drop forgings, etc.
A239.2 A240	British wines, cider and perry Tobacco			Metal hollow-ware
A261	Coke ovens and manufactured fuel			Miscellaneous metal manufacture
A262	Mineral oil refining		PA411	Production of man-made fibres
A263	Lubricating oils and greases		PA412	Spinning and doubling on the cotton and flax systems
	Inorganic chemicals		PA413	Weaving of cotton, linen and man-made fibres
	Organic chemicals Miscellaneous chemicals		PA414 PA415	Woollen and worsted Jute
A271.3	Pharmaceutical chemicals and preparations		PA416	Rope, twine and net
A273	Toilet preparations			Hosiery and other knitted goods
A274	Paint			Warp knitting
A275	Soap and detergents		PA418	Lace
A276	Synthetic resins and plastics materials and synthetic rubber	10 智能的	PA419 PA421	Carpets Narrow fabrics
A277	Dyestuffs and pigments			Household textiles and handkerchiefs
A278	Fertilizers			Canvas goods and sacks and other made-up textiles
	Polishes		PA423	
	Formulated adhesives, gelatine, etc.			Asbestos
	Explosives and fireworks Formulated pesticides, etc.		PA429.2 PA431	Miscellaneous textile industries Leather (tanning and dressing) and fellmongery
	Printing ink		PA432	Leather goods
	Surgical bandages, etc.		PA433	Fur
	Photographic chemical materials		PA441	Weatherproof outerwear
A311	Iron and steel (general)		PA442	Men's and boys' tailored outerwear
A312 A313	Steel tubes		PA443 PA444	Women's and girls' tailored outerwear Overalls and men's shirts, underwear, etc.
A313	Iron castings, etc. Aluminium and aluminium alloys		PA445	Dresses, lingerie, infants' wear, etc.
A322	Copper, brass and other copper alloys		PA446	Hats, caps and millinery
A323	Miscellaneous base metals			Corsets and miscellaneous dress industries
A331	Agricultural machinery (except tractors)		PA449.2	
A332 A333.1	Metal-working machine tools		PA450	Footwear
4333.1	Pumps			Refractory goods Building bricks and non-refractory goods
4333.3	Compressors and fluid power equipment		PA462	Pottery
A334	Industrial engines		PA463	Glass
A335	Textile machinery and accessories		PA464	Cement
A336	Construction and earth-moving equipment			Abrasives
A337 A338	Mechanical handling equipment Office machinery		PA469.2 PA471	Miscellaneous building materials and mineral products Timber
	Mining machinery		PA472	Fürniture and upholstery
A339.2	Printing, bookbinding and paper goods machinery		PA473	Bedding, etc.
	Refrigerating machinery, space-heating,		PA474	Shop and office fitting
	ventilating and air-conditioning equipment		PA475	Wooden containers and baskets
A339.5	Scales and weighing machinery and portable		PA479	Miscellaneous wood and cork manufactures
V330 2	power tools Food and drink processing machinery and		PA481	Paper and board Cardboard boxes, cartons and fibre-board packing case
4009.7	packaging and bottling machinery			Packaging products of paper and associated materials
4339.9	Miscellaneous (non-electrical) machinery		PA483	Manufactured stationery
4341	Industrial (including process) plant and steelwork		PA484.1	Wallcoverings
A342	Ordnance and small arms			Miscellaneous manufactures of paper and board
4349.1	Ball, roller, plain and other bearings		PA485 PA489	Printing, publishing of newspapers and periodicals General printing and publishing
4349.2 4351	Precision chains and other mechanical engineering Photographic and document copying equipment		PA489 PA491	Rubber
4352	Watches and clocks		PA492	Linoleum, plastics floor-covering, leathercloth, etc.
4353	Surgical instruments and appliances		PA493	Brushes and brooms
4354	Scientific and industrial instruments and systems			Toys, games and children's carriages
A361 A362	Electrical machinery			Sports equipment Miscellaneous stationers' goods
A363	Insulated wires and cables Telegraph and telephone apparatus and		PA495 PA496	Miscellaneous stationers' goods Plastics products
	equipment			Musical instruments
A364	Radio and electronic components			Miscellaneous manufacturing industries

PA499.2 Miscellaneous manufacturing industries

Construction

Electricity

Water supply

Summary tables

Gas

## PA412 SPINNING AND DOUBLING ON THE COTTON AND FLAX SYSTEMS

The information in this report relates to establishments classified to the Spinning and doubling on the cotton and flax systems industry, minimum list heading 412 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Spinning, doubling or otherwise preparing yarn of cotton, flax, soft hemp, silk and of man-made fibres (including glass fibre) on the cotton or flax systems.

> In interpreting the data in the tables it is essential to bear in mind the notes and definitions which commence on page (iii).

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TABLE 2

Output and costs, 1974–1978
All United Kingdom establishments classified to the industry (a)

	Unit	1974	1975	1976	. 1977	1978
Enterprises	Number	221	222	212	208	206
stablishments	"	278	277	261	250	246
ales of goods produced	£ thousand	445,069	433,168	537,251	574,425	530,723
deceipts for work done and industrial ervices rendered	Company of the	(b)	(b)	5,499	6,578	7,848
Capital goods produced for establishments' own use		186	176	136	141	157
Ion-industrial services rendered	"	1,032	1,271	1,016	1,203	1,492
Goods merchanted or factored	"	4,273	4,721	7,514	6,865	15,021
Total sales and work done (c)	.,	450,560	439,336	551,416	589,211	555,240
ncrease during the year, work in rogress and goods on hand for sale	"	14,361	3,374	13,796	1,405	1,974
Gross output	"	464,921	442,709	565,212	590,616	557,214
Purchases of materials for use in pro- luction, and packaging and fuel	"	278,030	253,687	337,111	356,421	338,369
urchases of goods for merchanting or actoring	"	3,678	4,326	6,459	(d)	14,515
ncrease during the year, stocks of naterials, stores and fuel	,,	-3,508	-2,753	15,366	-5,414	7,202
ost of industrial services received	"	10,600	11,169	12,077	15,571	13,599
Net output 💉 📗	"	169,104	170,774	224,931	213,210	197,933
otal employment (e)	Thousands	60.5	55.0	53.1	49.7	45.4
Net output per head	£	2,793	3,107	4,237	4,286	4,363
ayments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	1,506	1,338	377	623	980
Rents of industrial and commercial buildings	,	(f)	(f)	917	1,216	1,002
Commercial insurance premiums		2,418	3,154	3,427	4,075	4,164
Bank charges		298	280	318	351	294
Other non-industrial services	,	6,900	8,625	9,880	9,600	9,120
icensing of motor vehicles		52	71	79	84	116
Rates, excluding water rates		2,457	2,902	2,833	3,048	3,190
Gross value added at factor cost	"	155,474	154,403	207,100	194,212	179,067
Gross value added at factor cost per head	£	2,568	2,809	3,901	3,904	3,947

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 90 per cent of employment within the industry.

Capital expenditure, 1974—1978
All United Kingdom establishments classified to the industry (a)(b)

						£ thousand
	1974	1975	1976	1977	1978	100 July 100 100 100 100 100 100 100 100 100 10
Land and buildings			Service Control	foer	almann proper	non la
New building work	1,875	1,221	1,129	488	2,146	
Land and existing buildings						
Acquisitions	541	113	50	127	1,234	
Disposals	296	432	277	222	219	
Vehicles						
Acquisitions	934	2,098	1,189	1,528	1,678	
Disposals	275	930	355	471	569	
Plant and machinery						
Acquisitions	20,359	15,669	12,813	11,012	13,806	
Disposals	696	837	879	1,709	1,236	
Total net capital expenditu	re 22,443	16,902	13,671	10,753	16,841	

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

TABLE 3

Stocks and work in progress, 1974–1978
All United Kingdom establishments classified to the industry (a)

	1974	1975	1976	1977	1978		
	YEDIN DOT BESIN	1015.8 EEE, 101	Increase	75.34	200	Value at end of year	
Materials, stores and fuel	-3,508	-2,753	15,366	-5,414	7,202	50,718	
Vork in progress	4,063	-88	2,874	1,579	795	24,699	
Goods on hand for sale	10,298	3,461	10,923	-174	1,179	39,146	
Total	10,853	620	29,162	-4,009	9,176	114,563	

a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

<sup>(</sup>b) Including in sales of goods produced.

c) Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ412.

<sup>(</sup>d) Included in purchases of materials for use in production, and packaging and fuel.

e) Average number employed, including full and part-time employees (see table 7) and working proprietors.

<sup>(</sup>f) For 1974—1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and machinery.

<sup>(</sup>b) Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is included.

Analysis of establishments by size, 1978
All United Kingdom establishments classified to the industry (a)

Size group	Estab-	Enter- prises	Employmen	nt		Wages and sal	aries (f)			
(b)	ments	(c)								
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)		
			(0)			Total	per head	Total	per head	
ACULT SE PROMET	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£	
1–10	48	48	279 )							
11-19	30	30	425)							
20-49	44	44	1,518)	3,898	715	9,971	2,558	2,905	4,063	
50-99	35	35	2,501)							
100-199	36	33	5,085	4,390	688	11,242	2,561	2,719	3,951	
200-299	21	19	5,249	4,535	712	12,413	2,737	2,945	4,136	
300-399	13	12	4,353	3,660	690	10,439	2,852	2,543	3,686	
400-499	5	4	2,166	1,947	219	4,647	2,387	910	4,157	
500-1,499	10	9	7,116	6,236	880	14,897	2,389	3,455	3,926	
1,500 and ove	er 4	4	16,674	14,249	2,424	40,717	2,858	10,341	4,266	

Total	246	206	45,366	38,915	6,328	104,326	2,681	25,818	4,080

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

Total sales and work done (g)	Gross outpu	ut Net output		Gross value added at factor cost		Net capital expenditure (h)	Total stocks and work in progress at end of year
Ga berta Juden	no series Accept to series accept no series	Total	per head	Total	per head		
£ thousand	£ thousand	£ thousand	£ io reso woo well and in the mobile X	£ thousand	£ same same same same same same same same	£ thousand	£ thousand
67,968	68,512	20,279	4,294	(j)	(j)	1,738	11,725
63,005	63,587	18,413	3,621	33,928(j)	3,459(j)	2,808	12,531
61,763	62,584	17,216	3,280	14,585	2,779	2,554	13,629
58,970	59,516	17,150	3,940	15,109	3,471	2,172	12,827
20,157	19,826	8,689	4,012	8,008	3,697	1,559	4,201
59,208	59,322	21,272	2,989	18,576	2,610	1,593	14,997
224,168	223,867	94,914	5,692	88,862	5,329	4,417	44,652

555,2	40	557,214	197,933	4,363	179,067	3,947	16,841	114,563
(f)	The cos	t of employers' co ed for the industry	ontributions to nation at £17,960 thousa	onal insurance, pand. The remune	ensions and welfare eration of outwork	e schemes and the ers on returns rec	e running costs of delived was £32 tho	canteens, is ousand.

<sup>(</sup>g) Sales of goods produced, capital goods manufactured and buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.

<sup>(</sup>b) Average number employed, including full and part-time employees (see table 7) and working proprietors.

<sup>(</sup>c) The sum of the figures for the size groups may exceed the total for the industry because some enterprises control establishments in more than one size group.

<sup>(</sup>d) Including working proprietors.

<sup>(</sup>e) Administrative, technical and clerical employees.

<sup>(</sup>h) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

<sup>(</sup>j) Gross value added data relate to establishments employing 1–199.

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1978 All United Kingdom establishments classified to the industry (a)

Area	ing one	Total employment	(b)	Net capital expenditure (d	c)	Net output (d)	Gross value added at factor cost (d)	factor cos by establi 80 per cer of their er in the reg proportio	n of total e added at
Control of the Contro	8	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	percentag	le
Standard regions of									
England North		1.1	2.4	695	4.1	6,160	5,456	95.3	
Yorkshire and Humberside		2.8	6.1	1,132	6.7	16,264	14,970	57.4	
East Midlands		2.7	6.0	1,139	6.8	20,146	18,713	40.2	
East Anglia		sate 19	*****	(e#3/21	* (8	E 10 410 * 915	2031 .	53835)	
South East		0.5	1.0	135	0.8	1,814	1,597	45.0	
South West		*				*		100000	
West Midlands		0.6	1.3	131	0.8	2,962	2,670	91.5	
North West		26.0	57.3	9,097	54.0	107,664	98,385	90.8	
		178.8	43.5.0		21				
England		34.1	75.2	12,526	74.4	156,579	143,126		
Wales		•		•	*	*	•	•	
Scotland		5.1	11.2	1,173	7.0	35,538	32,948	76.2	
Great Britain		•	*				*		
Northern Ireland		•	*			*	*	*	
United Kingdom		45.4	100.0	16,841	100.0	197,933	179,067	/	

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments, 1978

Accoun	ting year ended	Percentage of total returns received	Percentage of total number employed
	\$25.5 June 20, 558.77	per cent	per cent
978	April (a)	3.7	2.9
	May	0.7	0.8
	June	2.2	0.6
	July	0.7	1.0
	August	State trefation that the same	The second of th
	September	5.9	4.2
	October	0.7	0.1
	November	2.2	1.4
	December	39.0	32.8
1979	January	2.2	2.4
	February	6.6	7.6
	March (b)	36.0	46.2
	0.4.4.1		and processing the processing of the processing

### (a) From 6th April.

## ABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1977(a)

Sex	Full-time	Part-time	All employees	
	per cent	per cent	per cent	
Male	56	1	57	
Female	33	10	43	

Source: Department of Employment

<sup>(</sup>b) Average number employed, including full and part-time employees (see table 7) and working proprietors.

<sup>(</sup>c) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

<sup>(</sup>d) Where a census return covered addresses in two or more regions, an estimate of the net output attributable to each address was made by assuming that net output was proportionate to employment. An estimate for each region was obtained by aggregating estimates of net output for addresses located in that region. Gross value added at factor cost is treated similarly.

<sup>(</sup>b) Including returns made for twelve-month period ended 1st to 5th April 1979.

a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1977.

PA412

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Operating ratios, 1977–1978
All United Kingdom establishments classified to the industry (a)

			Unit	1977	1978
Gross output per head			English Track	11,872	12,283
Net output per head			3.7		No kind
			£	4,286	4,363
Gross value added per head			£	3,904	3,947
Gross value added as a percentage of gross	output		%	33	32
Ratio of gross output to stocks				5.4	4.9
Vages and salaries as a percentage of gross value added			%	65	73
Ratio of operatives to administrative, tech employees	nical and clerical			6.3	6.2
section co	762				
Vages and salaries per administrative, tech mployee	nical and clerical		£	3,360	4,080
Vages and salaries per operative			£	2,405	2,681
11.86 (4)					
Net capital expenditure per head			£	216	371
let capital expenditure as a percentage of	gross value adde	d exer	%	6	9

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

Produced in Wales by Her Majesty's Stationery Office Reprographic Unit, Cardiff Dd. 699517 K6 Cdf 321 7/80 These notes give the main information needed for interpreting the figures in the industry Business Monitors: more detailed information about the census is given in a separate Business Monitor PA 1001 (Introductory Notes) of the Report on the census of Production, 1978.

#### SENERAL INFORMATION

## changes made for 1978

The Census for 1978 is in line with similar inquiries being conducted in other member countries of the European Economic Communities.

The census differed from earlier censuses in three respects. Sampling was introduced for establishments employing 20 to 49 and a sample of smaller units was selected. A new question on the leasing of capital assets was included for 1978 only. This will provide register information for use in related inquiries into leasing.

suppression of information relating to individual undertakings ection 9(5)(b) of the Statistics of Trade Act 1947 states The following provisions shall have effect with respect to any port, summary or other communication to the public of formation obtained under the foregoing provisions of this Act n compiling any such report, summary or communication the competent authority shall so arrange it as to prevent any particulars published therein from being identified as being particulars relating to any individual person or undertaking except with the previous consent in writing of that person or the person carrying on that undertaking, as the case may be; but his provision shall not prevent the disclosure of the total quantity or value of any articles produced, sold or delivered; so, lowever, that before disclosing any such total the competent authority shall have regard to any representations made to them by any person who alleges that the disclosure thereof would enable particulars relating to him or to an undertaking carried on by him to be deduced from the total disclosed". a figure involved disclosure the contributor concerned was metimes asked to give permission for its publication. In the ajority of cases permission was given. When it was refused and here contributors were not approached the figure has been ppressed, either by combining it with other figures, or as in the gional tables, by omitting the figure altogether.

#### Symbols used

The following symbols are used throughout the PA series of Business Monitors:

#### not available

- nil or less than half the final digit shown
- figures cannot be shown owing to the risk of disclosing information about individual enterprises.
- R revised

#### Rounding of figures

Figures in the tables have, where necessary, been rounded to the nearest final digit. Where figures have been so rounded, the sum of the constituent items may not always agree exactly with the total shown.

## Industrial classification

The United Kingdom Standard Industrial Classification (SIC) was first issued in 1948 and was subsequently revised in 1958 and 1968. It exists to promote uniformity and comparability in the official statistics of the United Kingdom. The general principles followed are those of the International Standard Industrial Classification of all Economic Activities of the United Nations Statistical Office but the United Kingdom SIC reflects the organisation and structure of industry and trade as it exists in the United Kingdom. The SIC is a classification by activity and is not a commodity classification. However, an index of all commodity headings for which sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQ 1000.

## Statistical units

The statistical unit for the purpose of the Census is the establishment which is defined in the SIC as the smallest unit which can provide the information normally required for an economic census, for

example, employment, expenses, turnover, capital formation. Usually the principal activities carried on in an establishment fall within a single heading of the classification (eg steel making or sugar refining). Typically the establishment embraces all the activities carried on at a single address eg a mine or a factory, including those which are ancillary to the principal activities. Frequently distinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and the whole establishment is classified according to the main activity. If however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometimes activities which are conducted as a single business are carried on at a number of addresses. Where this is so, businesses are asked to provide the full range of information in respect of each address, whether or not the activities are different. Their activities may, however, be integrated to such an extent that they constitute a single establishment. In the latter case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained of employment and net capital expenditure at each unit in order to compile regional tables. Efforts are made by the Business Statistics Office (BSO) to ensure, by negotiating with respondents, that the return from an establishment does not cover local units in more than one of the countries of the United Kingdom.

Establishments are asked to exclude from their returns particulars relating to any department not engaged in production eg merchanting, transport, warehousing, for which they keep a separate set of accounts. Transfers of goods produced to such departments are treated as sales and respondents are asked to value them as far as possible as if sold to an independent purchaser. Where separate accounts are not kept they are asked to include details of all these activities in their return.

Particulars relating to head offices mainly engaged in the administration of the production units within the scope of the census were included. Where more than one return was made the information in respect of the head office was apportioned among them.

For certain purposes in the annual censuses of production (especially the enterprise analyses of Business Monitor PA 1002) related establishments are combined. An enterprise group is defined as a business consisting of either a single establishment or two or more establishments under common ownership or control. Bringing together establishments into enterprise groups is also necessary for the purpose of ensuring that there will be no disclosure of the activities of any one enterprise group. Information about the relationship of establishments, the changing structure of groups of companies and about common ownership links is obtained from many sources, including the Stock Exchange Year Book, company reports, press reports and information supplied by individual establishments.

#### THE REGISTER

The register permits a questionnaire to be sent direct to the reporting establishment on which the latter can include information relating to all the manufacturing (or local) units which it comprises. The inquiries provide a major source of information for keeping the register continuously up-to-date and act as a check on its detail and structure. For the establishments on the register making returns to the quarterly inquiries, the industrial classification is derived from an analysis of their sales of commodities and is reviewed annually. Employment data are entered on the register from returns to the annual census of production. In cases where an establishment does not make a return to these inquiries the employment data are based on information provided by the Department of Employment from the annual censuses of employment. New additions to the register are obtained from various sources including the Department of Employment and HM Customs and Excise. The 1973 Finance Act allows the latter to pass lists of businesses registered for VAT to the BSO. Where necessary details are sought directly from new businesses. Units which cease to trade are removed from the live

#### Coverage

In recent censuses returns have been required from all establishments employing 20 or more. For the 1978 Census in 68 selected manufacturing industries coverage of establishments in the 20 to 49 employment size band has been reduced to a 1 in 2 sample. This change has relieved some 5,800 firms of the need to complete a census return. The Census has included for the first time a smalle (around 10 per cent) of units employing 11 to 19 to meet an EEC requirement to collect a limited range of data from smaller units every 5 years.

#### Region

The regions defined in Table 5 take account of the boundary changes arising out of the Local Government Act 1972 and the Local Government Act (Scotland) 1973. These changes came into effect in April 1974 in England and Wales and May 1975 in Scotland.

#### TERMS USED IN THE CENSUS REPORT

#### Average number employed

Establishments were required to state the average number of persons on the payroll during the year of return. Separate figures were required for:

administrative, technical and clerical employees

(b) all other employees (operatives)

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments were also required to state the number of working proprietors where appropriate and these are included in total employment figures. Full-time and part-time employees are included but outworkers (ie persons employed by establishments who worked in their own homes etc on materials supplied by the establishment) are excluded. The figures include persons engaged on merchanting or factoring and canteen workers where particulars in respect of these activities could not be excluded from the return.

#### Working proprietors

These include all persons regarded as "self-employed" for national insurance purposes and members of their families who worked in the business without receiving a wage or salary; but such persons who worked less than half the normal number of working hours are excluded. Directors working in the business but not in receipt of a definite wage, salary or commission are included under this heading: directors paid by fee only are not included.

#### Employees

Administrative, technical and clerical employees include directors in receipt of a definite wage, salary or commission, managers and works foremen; research and design employees (other than operatives); draughtsmen, editorial staff, advertising staff, travellers and all office employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include operatives employed in power stations, transport (including roundsmen), warehouses, stores, shops and canteens, inspectors, maintenance workers and cleaners. Operatives engaged in outside work of erecting, fitting etc are also included, but outworkers are excluded.

## Capital expenditure

Capital expenditure during the year in respect of manufacturing units where production had not started before the end of the year is included. Establishments were asked not to deduct from the value of capital expenditure amounts received or expected to be received in grants or allowances from the Government or any statutory body or local authority. Establishments with 100 or more employees were asked to include a total net capital expenditure figure for each calendar year and to state whether any of the investment shown in cost of new building work, vehicles or plant and machinery included goods for letting out on hire or leasing.

#### (a) New building work

This represents the cost incurred during the year of new building and other constructional work to be used in connection with the business covered by the return. The value is that charged to capital account during the year of return; it includes expenditure on new buildings and on the extension or reconstruction of old buildings, the value of works of a capital nature carried out by the establishment's own staff and the cost of any newly constructed buildings purchased. Figures shown include legal charges, stamp duties, agents' commissions, etc.

### (b) Land and existing buildings

The items shown are the capital cost of freeholds purchased and the capital cost or premium payable for leaseholds acquired (excluding the value of assets acquired in taking over an existing business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

#### (c) Plant, machinery and vehicles

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during the year. The value of plant and machinery acquired includes plant, etc which firms produced for their own use in connection with the business covered by the return. The value of plant, etc acquired is the expenditure charged to capital account during the year of return less any discounts received, but including the cost of transport and installation. Deductible value added tax is excluded but non-deductible value added tax on motor cars acquired is included. No deduction is made for depreciation, amortization or obsolescence. The proceeds of items disposed of during the year exclude amounts written-off for items scrapped.

#### Cost of industrial services

This includes amounts payable to other firms for work done on materials supplied by the establishment, payments for repairs and maintenance (including those in respect of rented buildings) and amounts paid to other firms for contracts which have been subjet, Payments to outworkers are excluded.

#### Cost of non-industrial services

This includes rents of industrial and commercial buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom), advertising etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights etc, manufacturing and quarrying rights and technical "know-how" are also included.

#### Gross output

In the calculation of gross output the value of total sales and work done is increased by the rise (or reduced by the fall) during the year in the value of work in progress and goods on hand for sale.

#### Net output

Net output, a customary census measure, is calculated by deducting from gross output the cost of purchases (reduced by the rise, or increased by the fall, during the year of stocks of materials etc) and the cost of industrial services received, and where applicable, duties etc.

#### Net output per head

The figures of net output per head are derived by dividing the net output by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

## Gross value added at factor cost

Gross value added at factor cost is calculated by deducting from net output the cost of non-industrial services eg rent of buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom) and advertising, rates (excluding water rates) and the cost of licensing motor vehicles. This estimate of gross value added approaches more closely than census net output to the definition of net output or value added in national accounts statistics.

### Gross value added at factor cost per head

The figures of gross value added at factor cost per head are derived by dividing the gross value added by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

#### Purchase

Purchases include the cost of raw materials, components, semimanufactured goods and workshop materials; of replacement parts and consumable tools not charged to capital account; of packaging materials of all types; of stationery and printed matter; of fuel, electricity and water; of materials to be used by the establishment or given out to other establishments for the production of machinery or other capital items for the establishment's own use; of materials for use by the establishment when working on goods supplied by

ustomers; and of food, etc for any canteen covered by the stablishment's return. Transfers of goods to the establishment om another department of the same firm not covered by the stablishment's return are included at a cost corresponding to the stimated selling value recorded by the other department, Amounts payable to transport firms or credited to the firm's own transport epartment for delivery of materials are excluded, as are all urchases of machinery and plant charged to capital account. irchases of goods for merchanting or factoring have been bllected separately since 1973. The values shown exclude VAT ney include, in addition to the actual purchase price, the value f packaging material charged to the establishment. The value of gurned goods or packaging material returned to suppliers and any ade discounts are excluded. Materials purchased duty-paid are cluded at their duty-paid value, less any drawback, rebate, etc. the cost of transport is included only if it is included with the irchase price in the firm's accounts, Imported goods are included their full delivered cost. If in the firm's accounts the transport am docks or airport is not included in the cost of goods purchased ne cost is entered at cif plus duty (if applicable). Leasing, enting and hire purchase charges are excluded.

#### Sales of goods produced

Sales for the purposes of the annual censuses means deliveries on ale of goods made by establishments in the United Kingdom overed by the inquiry. Sales of goods made for these establishments outworkers or by other establishments from materials given out them and sales of waste products are included. New building ork and machinery or other capital items produced by establishents for hiring out or leasing are regarded as sales, the value cluded in the return being that adopted in the establishments' anital asset accounts. Forward sales and canteen takings are excluded I sales in the period of the inquiry are included irrespective of en the goods were manufactured. Goods produced in one stablishment and transferred either to ancillary departments not ngaged in production for which there are separate accounts, or to other establishment of the same firm not covered by the return, treated as sales by the producing establishment and valued as as possible as if they had been sold to an independent purchaser. oods transferred to wholesale or retail selling organisations, for ich separate accounts are kept are valued on the same basis.

The value shown for sales is the "net selling value" defined as the amount (excluding VAT) charged to customers whether on an ex-works or delivered basis, after any trade discounts and agents' commissions have been deducted. The cost of packing materials less allowance for returnable cases is included. In industries where products attract Excise Duty the value stated is usually inclusive of duty if sold duty-paid and exclusive of duty if sold in bond or exported.

## Receipts for work done and industrial services rendered

Figures for work done represent the amount charged for work carried out on materials supplied by a customer and include repair work. Within certain industries this heading covers a wide variety of activities, for example, within the food sector - butter packed on commission; within the textile industries - making up of garments, fur dressing and textile finishing; within printing and publishing - preparatory work on type-setting, block making and binding. Work done is also significant in the electrical machinery and heavy angineering industries, covering erection, installation and repair and lobbing work. Other activities within this heading include exploration work, research and development, glass cutting and dressing and planing of timber.

Industrial services rendered include repairs and maintenance, installation work, and technical research and studies for other organisations.

## Capital goods produced for establishments' own use

This includes all work of a capital nature carried out during the year by the establishments' own staff for their own use.

#### Non-industrial services rendered

This includes rents received for commercial and industrial buildings, amounts charged for hiring out plant, machinery and vehicles and other goods and amounts charged to other organisations for the provision of transport. It also includes amounts received for the right to use patents, trademarks, copyrights etc, manufacturing and quarrying rights and technical "know-how" and revenue from such staff facilities as canteens.

#### Goods merchanted or factored

Merchanted goods are those (excluding canteen sales) sold without having been subjected to any manufacturing process by the seller.

#### Stocks and work in progress

Values are given of stocks of goods on hand for sale and of materials, stores and fuel, at the end of the year of return and of the change during the year, including any stocks of goods held for merchanting or factoring. Work in progress is defined as materials which have been partially processed by the establishment but which are not usually sold or transferred to another establishment without further processing. The values include the cost of materials consumed and labour used. Progress payments made to subcontractors are excluded and progress payments received from other organisations are not deducted.

#### Wages and salaries

These are amounts paid during the year to operatives and to administrative, technical and clerical employees. Payments to working proprietors, whether called salaries or not, are excluded. The values shown include all overtime payments, bonuses and commissions, whether paid regularly or not, and no deduction is made for income tax, insurances, contributory pensions etc. The value of redundancy payments less any amounts reimbursed from Government sources is included. The value of any payments in kind, travelling expenses etc is included.

## Remuneration paid to outworkers

The remuneration paid to outworkers (ie persons employed by the establishment who do their work in their own homes) is generally on a piece-work basis. Only amounts paid to outworkers whose names appear on the establishment's payroll are included. Amounts paid to outworkers by sub-contractors are excluded.

## Employers' insurance and welfare contributions

This item includes employers' contributions to national insurance under the Social Security Pensions Act, 1975 as well as commercial insurance premiums to provide pensions, superannuation or other retirement benefits, sickness benefits, personal accident benefits, disability or death benefits for employees or former employees or their dependants. Contributions to the running costs of canteens, social centres, children's and holiday homes, etc for employees, former employees and their dependants are also included.

## Operating ratios

The operating ratios shown were obtained by dividing the estimate of the industry total for the quantity shown in the numerator by the corresponding estimate for the quantity shown in the denominator. These estimates cover all establishments classified to each industry, including not selected establishments and non-respondents. Within an industry, it is possible to compare ratios for an individual firm with the ratios shown for the relevant industry. However, it is important to bear in mind that various factors may affect the results — for example, differences in definitions, treatment of depreciation (which is not identified in the census data) and varying practice with regard to stock valuation, may affect comparability in some respects.

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