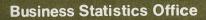


1977





Business Monitor

Report on the Census of Production

Electricity





publication of the Government Statistical Service

PA602

Business Monitor A publication of the Government Statistical Service

Special Note for Purchasers

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. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) 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).

The Census of Production (PA) reports are available on standing order (details on application to Her Majesty's Stationery Office, P.O. Box 569, London SE1 9NH. Telephone 01-928 6977), although they are not included in the global subscription arrangements for the Business Monitor series.

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.

Enquiries: **Business Statistics Office** Newport, Gwent NPT 1XG Newport 56111 (STD code 0633) ext 2455 Telex 497121 Answer Back BSONPT G

Report on the 1977

Electricity

Presented by the Secretary of State for Industry

(10 & 11 Geo.6 Cha.39 sec 7)

Census of Production

to Parliament in pursuance of the Statistics of Trade Act 1947

Department of Industry **Business Statistics Office**

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domestic	use		

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PA484.2	
PA485	Printing, publishing of newspapers and periodicals
PA489 PA491	General printing and publishing Rubber
PA492	Linoleum, plastics floor-covering, leathercloth, etc.
PA493 PA494.1	Brushes and brooms Toys, games and children's carriages
PA494.1	
PA495	Miscellaneous stationers' goods
PA496 PA499.1	Plastics products Musical instruments
PA499.1 PA499.2	
PA500	Construction
PA601 PA602	Gas Electricity
PA603	Water supply
PA1002	Summary tables

PA602 ELECTRICITY

The information in this report relates to establishments classified to the Electricity industry, minimum list heading 602 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

The production and distribution of electricity for public supply. Construction work carried out by employees of electricity undertakings is included. Establishments producing electricity for railway and trolley-bus operation are also included, as are 'district heating' and electricity showrooms until 1975. Establishments (other than those of railway and trolley-bus undertakings) producing electricity primarily for their own use are excluded, and are included in the industries covering the major output of the parent works.

The tables for 1973 were compiled from returns made to the Department of Energy. All figures in the tables relate to the year ended 31 March except for information from one undertaking which relates to calendar years.

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LIST OF CON	TENTS				
	TENTS				
Table	Title				
No		040.11	070 4077		
1		ut and costs, 1			
2	Capita	al expenditure	, 1973–1977		
3	Stock	s and work in	progress, 1973-19	977	
4	Analy	sis of establish	nments by size, 197	77	
5		bution of emp tor cost by co	oloyment, net capit untry, 1977	al expenditure, n	et output a
6			of twelve-month p nents employing 20		
7	Perce	ntage analysis	of employees, by f	ull and part-time	employme
8	Opera	ating ratios, 19	977		
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Page 2–3 4 4 Does not apply 5 Does not apply

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6

TABLE 1

Output and costs, 1973–1977 All United Kingdom establishments classified to the industry

	Unit	1973	1974	1975	1976	1977
Number of generating stations	Number	273	266	266	237	247
Electricity etc.; sold (a)	£ thousand	2,132,168	2,931,833	3,893,170	4,210,580	5,229,928
Receipts for work done and industrial ervices rendered	"	(b)	(b)	(b)	427,371	102,540
Capital goods produced for under- akings' own use		99,538	112,294	127,994	143,408	139,477
Non-industrial services rendered	"	5,773	7,968	10,869	12,534	15,132
Goods merchanted or factored	Mark of the	134,573	143,105	146,903	(b)	(b)
Total sales and work done (c)	"	2,372,053	3,195,200	4,178,936	4,793,893	5,487,077
ncrease during the year, work in rogress and goods on hand for sale (d)		6,304	7,386	-2,061	3,255	-4
Gross output	"	2,378,357	3,202,586	4,176,875	4,797,148	5,487,073
urchases of materials for use in pro- uction, and packaging and fuel	"	969,474	1,788,676	2,158,413	2,273,071	2,765,438
urchases of goods for merchanting or actoring (e)		94,087	(f)	102,047	22,162	815
ncrease during the year, stocks of naterials, stores and fuel		-2,691	153,099	161,399	110,491	174,794
ost of industrial services received	"	104,898	158,995	166,782	199,993	227,608
Net output		1,207,207	1,408,014	1,911,032	2,412,413	2,668,006
Net output per head	£	6,158	7,158	9,780	13,264	15,058
ayments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	6,648	8,642	10,631	9,017	14,885
Rents of industrial and commercial buildings	"	(g)	(g)	(g)	6,588	6,973
Commercial insurance premiums	"	9,806	11,749	14,852	16,481	16,093
Bank charges	"	1,130	1,146	1,512	1,455	2,127
Other non-industrial services (h)		27,909	37,132	45,771	57,392	63,003
icensing of motor vehicles	"	2,686	1,773	2,236	2,346	2,733
ates, excluding water rates	"	72,754	106,663	128,738	155,640	170,959
Gross value added at factor cost		1,086,274	1,240,909	1,707,292	2,163,493	2,391,233
Gross value added at factor cost per head	£	5,541	6,309	8,737	11,895	13,496
otal employment (j)	Number	196,055	196,913	195,421	181,883	177,177
Operatives	"	109,438	110,220	107,911	101,901	98,412
Others (k)	"	86,617	86,693	87,510	79,982	78,765
ages and salaries (I)						
Operatives	£ thousand	218,592	269,818	335,963	351,576	365,221
Others (k)	"	189,061	252,631	327,030	342,171	363,789
ages and salaries per head						
Operatives	£	1,997	2,448	3,113	3,450	3,711
Others (k)	"	2,183	2,914	3,737	4,278	4,619

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- (a) Including sales of electricity, by-products and waste products, and meter rents received.
- Included in electricity etc.; sold. (b)

FOOTNOTES TO TABLE 1

- Details of undertakings' sales of principal products are published regularly in Business Monitor PQ602. (c)
- Work in progress not recorded for 1976-1977. (d)
- 1976-1977 figures do not included goods handled through showrooms. (e)
- (f) Included in purchases of materials for use in production and packaging and fuel.
- For 1973–1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and machinery. (g)
- 1974-1977 figures include the cost of hiring goods vehicles. (h)
- (j) Average number employed, including full and part-time employees (see table 7) but excluding showroom employees for 1976-1977.
- (k) Administrative, technical and clerical employees.
- Another important component of labour costs, employers' national insurance contributions, graduated pensions, contributions to other pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £158,942 thousand for 1977. (1)

TABLE 2

Capital expenditure, 1973–1977 All United Kingdom undertakings classified to the industry (a)

					£ thousar
	1973	1974	1975	1976	1977
_and and buildings			-	T-aver-ot.to.tave-	Tion sergoid at show
New building work	91,707	125,852	188,568	214,839	183,752
Land and existing buildings					
Acquisitions	4,572	7,523	4,621	4,745	4,281
Disposals	8,599	5,483	5,348	3,163	3,937
/ehicles					
Acquisitions	5,957	12,946	12,252	12,212	12,213
Disposals	856	1,066	1,572	1,635	1,709
lant and machinery					
Acquisitions (b)	403,538	477,285	613,363	659,303	646,442
Disposals	4,807	3,369	3,823	6,920	6,455
luclear Fuel					
Acquisitions	10,265	15,492	19,704	12,464	809
Disposals	_	-	-		-
Total net capital expenditure	501,779	629,180	827,765	891,845	835,396

TABLE 5

PA602

Distribution of employment, net capital expenditure, net output and gross value added at factor cost, by country, 1977 All United Kingdom undertakings classified to the industry

Country Average number employed (a)		number exp employed		et capital Net output spenditure (b)			at factor cost	Gross value added at factor cost	
	Number	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	per cent of United Kingdom	
England	142,770	80.6	566,282	67.8	2,204,929	82.7	1,974,705	82.6	
Wales	10,721	6.0	95,189	11.4	83,426	3.1	65,302	2.7	
Scotland	16,988	9.6	104,794	12.5	315,022	11.8	293,012	12.3	
Great Britain	170,479	96.2	766,265	91.7	2,603,377	97.6	2,333,019	97.6	
Northern Ireland	6,698	3.8	69,131	8.3	64,629	2.4	58,214	2.4	
United Kingdom	177,177	100.0	835,396	100.0	2,668,006	100.0	2,391,233	100.0	

(a) Average number employed, including full and part-time employees (see table 7) but excluding showroom employees.

(b) New building work plus acquisitions less disposals of land and existing buildings, vehicles, plant and machinery and nuclear fuel.

(a) Capital expenditure in respect of units where production had not commenced before the end of the year, is included.

Including meters, mains and services and railway sidings owned by electricity undertakings. (b)

TABLE 3

Stocks and work in progress, 1973–1977 All United Kingdom undertakings classified to the industry £ thousand 1973 1974 1975 1976 1977 Value at Increase end of year Materials, stores and fuel -2,691 153,100 161,399 110,491 174,794 828,232 Work in progress 1,753 3,497 -1,455 (a) (a) (a) Goods on hand for sale 4,551 3,889 -606 3,255 2,540 _4 Total 3,613 160,486 159,338 113,746 174,790 830,772

4

(a) Not recorded for 1976-1977.

TABLE 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	82	-	82
Female	14	4	18

The percentages relate to the numbers employed in the United Kingdom at June 1976, because 1977 information is not yet available. (a)

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Source: Department of Employment

TABLE 8

Operating ratios, 1977 All United Kingdom undertakings classified to the industry

			Lender to L	Jnit	197	77
ross output per head				£	30,9	969
				nan anna Strick	The second	
et output per head				£	15,0	058
ross value added per head				£	13,	496
ross value added as a percent	age of gross output			%		44
atio of gross output to stock	S					6.6
lages and salaries as a percent	age of gross value added	3.00 S 60S (0)		%		30
		and the second sec				
atio of operatives to adminis mployees	trative, technical and cl	erical				1.2
				c	2	711
lages and salaries per operativ	/e			£	З,	711
lages and salaries per adminis	trative, technical and cl	erical		£	1	619
mployee				L	4,	019
let capital expenditure per he	ad			£	4,	.715
Net capital expenditure as a pe	ercentage of gross value	added	4	%	all all all a	35
a the second sec						
\$						
*						
*						

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Notes

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, 1977.

GENERAL INFORMATION

Changes made for 1977

The Census for 1977 is in line with similar inquiries being conducted in other member countries of the European Economic Communities. There was a small number of changes in the scope of the industry reports compared with 1976.

For the first time in the industry monitors a table has been included on operating ratios, calculated from census measures of output, investment, manpower and labour costs.

Specific changes are explained in the introductions to the industry reports or by footnotes to the tables.

Suppression of information relating to individual undertakings

Section 9(5)(b) of the Statistics of Trade Act 1947 states - "The following provisions shall have effect with respect to any report, summary or other communication to the public of information obtained under the foregoing provisions of this Act -

in 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 this provision shall not prevent the disclosure of the total quantity or value of any articles produced, sold or delivered; so, however, 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." If a figure involved disclosure the contributor concerned was sometimes asked to give permission for its publication. In the majority of cases permission was given. When it was refused and where contributors were not approached the figure has been suppressed, either by combining it with other figures, or as in the regional 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
- undertakings 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 Standard Industrial The United Kingdom 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.

THE REGISTER

The register permits a questionnaire to be sent direct to the reporting establishment/undertaking 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/undertakings on the register making returns to the guarterly 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/ undertaking 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 Companies Registration Office and the Department of Employment. The 1973 Finance Act allows HM Customs and Excise to pass to the Business Statistics Office (BSO) lists of businesses registered for VAT. Information from all these sources is used to improve the register, and where necessary, details are sought directly from new businesses. Units which cease to trade are removed from the live register.

Increasing use of the information obtained from the Department of Employment, HM Customs and Excise and BSO inquiries has led to improvements on the register, which in turn enabled the BSO to produce better estimates, particularly of numbers of smaller establishments/undertakings.

Coverage

of

A return was required in the 1977 Census from each establishment/undertaking with 20 or more employees. Each establishment/undertaking is classified to an industry, as defined in the SIC, whose principal products form the major part of the establishment's/undertaking's sales.

TERMS USED IN THE CENSUS REPORT

Average number employed

Undertakings were required to state the number of persons on the payroll on average during the year return, whether full-time or part-time employees. Separate figures were required for: (a) 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. 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.

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.

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. Undertakings 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. Undertakings with 100 or more employees were asked to include a total net capital expenditure figure for each calendar year.

(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 undertaking'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 capita! 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 nondeductible 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 undertaking, payments for repairs and maintenance (including those in respect of rented buildings) and amounts paid to other firms for contracts which have been sublet.

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.

Gross value added at factor cost

Gross value added at factor cost is calculated by deducting from net output the cost of nonindustrial 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.

Purchases

Purchases include the cost of raw materials, components, semi-manufactured 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 undertaking or given out to other establishments/undertakings for the production of machinery or other capital items for the undertaking's own use; of materials for use by the undertaking when working on goods supplied by customers; and of food, etc for any canteen covered by the undertaking's return. Transfers of goods to the undertaking from another department of the same firm not covered by the undertaking's return are included at a cost corresponding to the estimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport department for delivery of materials are excluded, as are all purchases of machinery and plant charged to capital account. Purchases of goods for merchanting or factoring have been collected separately since 1973. The values shown exclude VAT. They include, in addition to the actual purchase price, the value of packaging

material charged to the undertaking. The value of returned goods or packaging material returned to suppliers and any trade discounts are excluded. Materials purchased duty-paid are included at their duty-paid value, less any drawback, rebate, etc. The cost of transport is included only if it is included with the purchase price in the firm's accounts. Imported goods are included at their full delivered cost. If in the firm's accounts the transport from docks or airport is not included in the cost of goods purchased, the cost is entered at cif plus duty (if applicable). Leasing, renting and hire purchase charges are excluded.

Sales of goods produced

Sales for the purposes of the annual censuses means deliveries on sale of goods made by undertakings in the United Kingdom covered by the inquiry. Sales of goods made for these undertakings by other undertakings from materials given out to them and sales of waste products are included. New building work and machinery or other capital items produced by undertakings for hiring out or leasing are regarded as sales, the value included in the return being that adopted in the undertakings' capital asset accounts. Forward sales and canteen takings are excluded. All sales in the period of the inquiry are included irrespective of when the goods were manufactured. Goods produced in one undertaking and transferred either to ancillary departments not engaged in production for which there are separate accounts, or to another undertaking of the same firm not covered by the return, are treated as sales by the producing undertaking and valued as far as possible as if they had been sold to an independent purchaser. Goods transferred to wholesale or retail selling organisations, for which 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.

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 and jobbing work, erection and installation of plant and machinery, exploration work and research and development. Industrial services rendered include repairs and maintenance, installation work, and technical research and studies for other organisations.

Capital goods produced for undertakings' own use This includes all work of a capital nature carried out during the year by the undertakings! 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 undertaking but which are not usually sold or transferred to another undertaking without further processing. The values include the cost of materials consumed and labour used, together with a margin of overhead costs and profits. Progess payments made to sub-contractors 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. The values shown include all overtime payments, bonuses, commissions and holiday pay, 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 excluded.

Employers' insurance and welfare contributions This item includes employers' contributions to national insurance (and/or earnings related basic contributions under the Social Security Pensions Act, 1975) and 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

(v)

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 undertakings classified to the industry, including exempted undertakings 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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