NOTES ON THE FINANCIAL TIMES-ACTUARIES EQUITY SHARE INDICES IN 1988

By J. C. H. BRUMWELL, M.A., F.I.A.

1. Classification of Stock Exchange Securities by Industry

The original classifications were set out in the 1970 note in this series (J.I.A. 97, 111-12). Subsequent amendments were set out in the notes for 1971-74, 1977, 1979-80 and 1983-87 (J.I.A. 97, 403; 99, 89; 100, 109; 101, 199; 105, 85; 107, 81; 108, 85; 111, 203; 112, 87; 113, 173; 114, 143 and 115, 333).

During 1988 categories 20 (Cold Formed Fastenings and Turned Parts) and 21 (Founders and Stampers) were discontinued. All 17 companies so classified were included in category 34 (Miscellaneous Metal Forming).

Two other categories were renamed to a minor extent during 1988:

33 Steel67 Health & Household

(In last year's notes the change of 65 to Giftwear should have read Giftware)

Minor amendments were also made to the definitions of two categories during 1988.

As a result of the quarterly meetings of the Classification Sub-Committee of the Joint Investment and Index Committee, the classifications of 56 companies were altered, following changes in their business, or otherwise corrected. These changes were only made after notification to the company concerned and usually after discussion. A further 52 companies, in addition to those with whom discussions had begun in earlier years, were first approached in 1988.

The Stock Exchange continued to classify the new companies either granted a full quotation, or quoted on either the Unlisted Securities Market, or the Third Market.

2. Constituent Changes in the Equity Indices

During 1988 sixty constituents were removed from the indices, almost 27% less than 1987's record figure of 82. As shown in Table A, 44 of these constituents were acquired by other companies, 1 was reconstructed and demerged, 10 investment trusts were unitized or reconstructed, 4 companies were removed under the casualty rule due to their persisting small capitalizations, and a receiver was appointed to one.

The number of constituents in the All Share Index has fallen steadily from 750 since 1983—reflecting the difficulty in selecting replacements for constituents removed outside the 500 Share Index. This again proved to be the case in 1988, and the number of constituents, which at the end of 1987 had been 720, fell

further to 713 a year later. Much of the reduction derives from the fall in the number of Investment Trusts from 107 to 76 over the same five years—reflecting the spate of reconstructions, unitizations and take-overs. The fifty-three new constituents, with their capitalizations on entry, are set in Table B.

For the third time in four years no changes were made to the Groups or Subsections at the end of 1988. However, twelve of the companies reclassified during the year—as described in § 1---were constituents, and consequently their index classifications were changed as set out in Table C.

The thirty-six constituents which changed their names (one twice) are shown in Table D.

In 1988 the total number of capital changes (not just those involving changes of constituent) recorded fell by 208 from the exceptional peak in 1987 to 970—still appreciably higher than the previous record (of 852 in 1986).

3. F.T.-S.E. 100 Index

1988 was the fifth year of operation of the F.T.-S.E. 100 Index—based at 1000.0 at close of business on the last day of trading in 1983—which is calculated on a real-time basis and updated every minute from 9.00 a.m. until 5.00 p.m. on each trading day. A description of its calculation was given in the 1984 note in this series.

Details of the 11 changes of constituent made during 1988 are given in Table F and an ordered list of the initial 1989 constituents (i.e. after the 30 December 1988 changes) in Table G.

4. Miscellaneous

At the end of 1988, it was agreed to widen the eligibility of companies to become constituents in two respects: (a) the requirement for a company to be paying a dividend was ended and (b) companies quoted on the Unlisted Securities Market became eligible—provided they fulfilled the free market condition, which requires at least 25% of the shares to be 'in the market'. As a result the seven new constituents on 30 December 1988 were two fully-quoted companies—Eurotunnel and Premier Consolidated Oilfields—neither paying a dividend—and five USM companies. The equity share index values, yields and ratios at the end of 1988 are set out in Table E.

Table A---Constituents removed during 1988

Date of Removal	Constituent Removed
	MK Electric Group
8 January 14 January	Abaco Investments
25 January	Freemans
5 February	Ailsa Investment Trus
11 February	Minet Holdings Chase Property Holding
11 February 23 February	Burgess Group
25 February	Tricentrol Britoil
25 February 29 February	Berry Trust
	General Consolidated
7 March	Investment Trust Edinburgh American
	Assets
31 March	Ipeco Holdings Henderson Group
6 April 12 April 4 May	Kennedy Brookes Glass Glover Group TR Technology Investment Trust
4 May	Glass Glover Group
9 May	IN ICONDOIOGY
13 May	Framington Group
18 May	Addison Consultancy
	Group Guthrie Corporation
2 June	Guthrie Corporation Dubilier International
8 June	
13 June	John Crowther Holdit
2 June 8 June 10 June 13 June 17 June	Drayton Japan Trust
21 June	John Crowther Holdin Japan Assets Trust Drayton Japan Trust Crescent Japan Investment Trust A G Stanley Holdings Lynton Property & Reversionary
	A G Stanley Holdings
6 July	Lynton Property &
7 July	Reversionary Acre Oil
•	Rowntree
12 July 14 July	Amari
14 July	Estates Property
20 July	Investment Freshbake Foods Gro Atlantic Assets Trust
1 August 15 August	Atlantic Assets Trust
15 August 26 August	Harris Queensway Ellis & Goldstein
2	(Holdings)
2 September	(Holdings) Atlantic Computers
9 September	CASE Group
12 September	Hoskyns Group
16 September 30 September	Peachey Property Cor
18 October	Hoskyns Group Peachey Property Cor TACE Group Travis & Arnold
25 October	General Trust AGB Research
8 November 10 November 15 November	Pleasurama
10 November	Ruberoid Matthew Hall
16 November	Pilgrim House Group
21 November	Ruberoid Matthew Hall Pilgrim House Group TR North America Investment Trust Birmid Qualcast [®] Associated Newsnare
28 November	Birmid Qualcast*
6 December	Associated Newspaper
7 December	Holdings Sound Diffusion
7 December 8 December	Telephone Rentals
14 December	Aurora
	LandLeisure
21 December	Abbey Life Group Virgin Group
28 December 30 December	Virgin Group
Jo Datemoer	Carless S.R. Gent
	Ocean Wilsons (Holdi

Index Classification Electricals Other Financial Stores ment Trust Investment Trusts Insurance Brokers rty Holdines Property Electricals Oil & Gas Oil & Gas Investment Trusts Investment Trusts Investment Trusts Mechanical Engineering Building Materials Leisure Food Retailing Investment Trusts Other Financial Agencies Conglomerates reational Electronics Electronics her Holdings Textiles Investment Trusts Investment Trusts Investment Trusts Holdings Stores Property Oil & Gas Food Manufacturing Metals & Metal-Forming Property Food Manufacturing oods Group Investment Trusts Stores Textiles Electronics Electronics Electronics perty Corpn. Property Mechanical Engineering **Building Materials** Investment Trusts Agencies 1 eicure **Building Materials** Mechanical Engineering Electricals Investment Trusts Mechanical Engineering lewspaper Publishing & Printing Electricals Miscellaneous Mechanical Engineering Leisure Insurance (Life) Leisure Oil & Gas Textiles ons (Holdings) Shipping & Transport

Control acquired by, or reasons for removal RTZ Corporation British & Commonwealth Holdings Sears Reconstruction St Pauls Companies Trafalgar House RHP Group Arco UK British Petroleum Reconstruction Reconstruction Reconstruction Under casualty rule Henworth Ceramic Holdings Trusthouse Forte Dryvale Reconstruction Fifth Throgmorton Company Reconstruction & Demerger **BBA** Group Peck Granada Group Coloroll Group Reconstruction Reconstruction Reconstruction Ward White Group BAA British Gas Nestle (UK) Glynwed International Giltvote Campbell Investments (UK) Reconstruction Lowndes Ventures Alexon Group British & Commonwealth Holdings Dowty Group Plesse Wereldhave NV Under casualty rule Sandell Perkins British Coal Pension Funds Pergamon Professional & Financial Services Mecca Leisure Group Tarmac AMEC Williams Holdings Reconstruction Blue Circle Industries Daily Mail & General Trust Receiver appointed Cable & Wireless Australian National Industries Leisure Investments Lloyds Bank Glowtrack Kelt Energy Under casualty rule Under casualty rule

Birmid Qualcast was also temporarily suspended from 16 to 18 February

Notes on the Financial Times-

Table B--New constituents in 1988 replacing those removed in Table A

Date of Introduction	New Constituent	Index Classification	Capitalization £ (m)
8 January	Wace Group	Publishing & Printing	50.8
14 January	Baltic	Other Financial	50 0 54·7
25 January	Anglia Secure Homes	Contracting & Construction	60.5
16 February	ML Holdings	Mechanical Engineering	55.6
23 February	Illingworth Morris	Textiles	54.0
25 February	TIP Europe	Shipping & Transport	83-1
31 March	AMI Healthcare Group	Health & Household	172-4
6 April	Shanks & McEwan Group	Miscellaneous	167-9
12 April	UK Paper	Packaging & Paper	114-8
4 May	Acre Oil	Oil & Gas	314-3
18 May	Shandwick	Agencies	68-5
	Tilbury Group	Contracting & Construction	70-1
2 June	Peek	Electronics	133-9
6 June	Guinness Mahon Holdings	Merchant Banks	58-3
8 June	ASW Holdings	Metals & Metal Forming	100.9
10 June	Thorntons	Food Retailing	81.8
21 June	Watmoughs (Holdings)	Publishing & Printing	61.5
27 June	Local London Group	Property	103-9
7 July	Egerton Trust	Contracting & Construction	62.5
12 July	Hunterprint Group	Publishing & Printing Chemicals	62·1 80·9
12 July	Evode Group Control Securities		
20 July	Fairbriar	Property Contracting & Construction	170·0 76·4
1 August	K I T Capital Partners	Investment Trusts	131.7
15 August	Lowndes Ventures	Stores	232.9
26 August	B M Group	Mechanical Engineering	106.3
2 September	Haden Maclellan Holdings	Mechanical Engineering	80.2
8 September	Appleyard Group	Motors	62.7
12 September	Evans Halshaw Holdings	Motors	64·0
30 September	Marler Estates	Property	62-9
oo septemeet	P&P	Electronics	70.8
	Rechem Environmental	Dictromos	100
	Services	Chemicals	75.7
18 October	Bodycote International	Conglomerates	67.1
25 October	FKB Group	Agencies	73-5
8 November	Baggeridge Brick	Building Materials	62.0
10 November	Owners Abroad Group	Leisure	68·1
15 November	Northamber	Electronics	65·7
16 November	Capital Radio	Leisure	67·0
	Merivale Moore	Property	67.4
28 November	Vibroplant	Contracting & Construction	63·2
6 December	Daily Mail & General Trust	Publishing & Printing	399-0
7 December	British Steel	Metals & Metal-Forming	2520.0
8 December	U.D.O. Holdings	Miscellaneous	57.5
14 December	Leisure Investments	Leisure	133-7
	Life Sciences		
A A X	International	Health & Household	58·5
28 December	Compass Group	Leisure	165-6
30 December	Blenheim Exhibitions		
	Group	Agencies	100.0
	Eurotunnel	Shipping & Transport	806.0
	London Forfaiting Premier Consolidated	Other Financial	165.0
	Oilfields	Oil & Gas	247.6
	Randsworth Trust	Property	121.7
	Stanhope Properties	Property	291.9
	United Friendly Insurance	Insurance (Life)	79.1

Table C---Constituents reclassified in 1988

Date of Reclassification	Company	Former Classification	New Classification
7 March	Thomson T-Line	Miscellaneous	Conglomerates
31 March	Charterhall	Oil & Gas	Stores
	JS Pathology	Miscellaneous	Health & Household
	RHP Group	Mechanical Engineering	Electricals
6 June	GPG .	Merchant Banks	Other Financial
30 June	T&N	Other Industrial Materials	Motors
30 September	Dominion International		
	Group	Conglomerates	Motors
	Pearson	Conglomerates	Publishing & Printing
18 October	Ryan International	Miscellaneous	Contracting & Construction
30 December	Avis (Europe)	Agencies	Motors
		Agencies	Leisure
	IMI		Mechanical Engineering

Table D---Name changes in 1988

Former Name

ASDA-MFI Group Barker & Dobson Group C H Beazer Holdings Brown Boveri Kent (Holdings) Burnett & Hallamshire Holding Carless Capel & Leonard Country & New Town Properties Dcc Corporation Delta Group F & C Alliance Investment Ferranti Foseco Minsep **GRA** Group **Guinness Peat Group** Hepworth Ceramics Holdings Hollis first to and then to Imry International Kennedy Smale Kleinwort Benson Lonsdale London Investment Trust London Shop Property Trust Lowndes Ventures Metal Box North Atlantic Securities Corporation **RHP** Group Saga Holidays Sandell Perkins George H Scholes Smith & Nephew Associated Royal Insurance W H Smith & Son (Holdings) Southend Stadium Systems Designers **Television South** F H Tomkins TR National Resources Investment Trust New Name Asda Group Budgens Beazer ABB Kent (Holdings) NSM Carless Pennant Properties **Gateway** Corporation Delta F & C Smaller Companies Ferranti International Signal Foseco Wembley GPG Hepworth Pergamon Professional & Financial Services Pergamon AGB Imry Merchant Developers McLeod Russel Holdings Kleinwort Benson Group LIT Holdings London Shop Lowndes Queensway MB Group **Overseas** Investment Trust Pilgrim House Group Saga Group **Travis Perkins** Scholes Group Smith & Nephew Royal Insurance Holdings W H Smith Group Southend Property Holdings SD-Scicon **TVS** Entertainment Tomkins Sphere Investment Trust

1988
December
31
5
etc.
Levels
Index
EEquity
Table

% Change during 1988	$+10 \cdot 10$	+ 6-53	+ 8.98	+16.28	+20-67	+13-89	+6-17	+0.08	+7-94	+1-37	+13-18	+13.89	-12.33	+5.85	+21-10	+ 6-88	-2:34	- 16-53	- 19-59	+8.68	+0.16	-0-41	+ 16 09	+ 10-15	+15.62	+4.04	+5-61	+3·72	+5:35	+6.31	+3.58	— I ·54	+6.68	+540	05-0-	- 10-02	19:14	125.44	+ 33-40	+ 6-48	+4.69
Year Earlier (31 Dec 1987)	709-86	938-66	1360-45	1984-45	1474-87	360-53	429-36	260-40	1219-57	1010-53	983-78	819-19	2052-24	1695-17	11 5-34	492-64	3336-67	829-93	577-79	829-14	1040-29	1034-99	1087-74	1690-37	870-64	1145-21	892·28	1663-63	957-66	634-25	61-6E9	955-99	497-07	870-25	040-70	181-57	10:222	450.65	952-95	870-22	1712-7
1988 Low	706-80	900-82	1385-83	1946-87	1423-66	367-20	424-40	254-89	10-1611	16-989	951-87	803-48	1723-24	1708-33	1142-19	473-11	3091-72	658-79	432-61	834-42	16-766	12-116	1095-37	1718-96	880-24	1096-28	887-00	1681-40	958-79	630-02	610-26	906-86	481-43	823-41	28-400	10.01	16.487	385.04	96 9 .88	870-19	1687-5
1988 High	830-49	1058·10	1627-40	2440-04	1816-22	437-20	516-28	295-13	1397-10	1118-61	1160-92	1016-66	2179-42	1946-55	1433-24	565-09	3647-52	859-85	620-72	923-13	1219-02	1121-06	1272-77	1992-59	101]-82	1281-89	998-43	1881-98	1070-40	720-68	701·86	1090-17	567-92	1022-51	C7-0/C	401-37	643-00	619-62	1447-77	978-58	1892-2
% of All Share Index	17.81	3-36	1.92	80	4-08	3·18	1·14	1-30	2-93	30-37	4-89	4-47	3-26	5-48	3.28	1.02	2.29	4.79	68-	18-35	1-18	3:43	3-19	2-03	5:40	3-12	67-43	10-76	78-19	15-70	5.00	1-74	2:45	\$	D.:	00 F	3.25	59.1	1.17	100-00	96-89
Capitalization as at 30 December 1988	66,942-4	12,011-3	6,865-0	2,854-0	14,603-6	11.369-7	4,095-3	4,672.6	10,463-9	108,645-9	17,488-2	15,995-7	11,646-2	19,609-5	11,721-1	3,666-1	8,181.4	17,149-6	3,188-1	65,658-0	4,214-0	12,276-8	11,418-0	7,265-4	19,327-4	11,156-4	241,246.3	38,515-5	279,761-8	56,188-4	17,912-8	6,231-2	8.755-3	1,707.6	4.56477	4.558-1	11.615.7	6.041.6	4,192-1	9-561,75E	246,747-4
XD adj: 1988	25-81	33-75	47-27	78-35	47-99]4-46	14-25	16-6	46-27	30-45	32-36	27-45	51-41	40-69	37-84	16-37	108-57	25-04	19-12	32-32	21-60	41-76	54-04	62-78	35-23	4]-15	30-47	82-60	34-87	26-6)	32-18	39-81	24-04	46-8/	26.01	1548	21-38	15-67	48-71	32-28	}
Est Price/ Earnings Ratis (Net)	10-23	9-20	9-75	12-85	12-28	10-49	9-90	9-24	11-41	12-43	10-98	12-79	13-04	15-32	14-72	47-11	13-33	10-70	7-98	10-50	13-05	9-71	9-91	12-24	I -14	9-42	1 20	1.93	1:-30	I	6-26	I	:	60-51		12-23	i	10-30	12:64	I	I
Gross Dividend Yield (Act @ 25%)	4.55	4.78	4	4-89	3-67	4:55	6-48	507	4:74	4:08	401	4·12	3.89	3.02	3.74	4.28	4.71	4.97	6-08	4.77	2.82	511	5.67	4.48	467	461	4.40	6.45	4.68	5.25	6.55	5.73	589	60/	30.5	5.74	3.27	3-70	4.95	4.71	ļ
Est Earnings Yield %	11-97	13-37	3-37	95-4 5	0-53	1 60	96-9	12-54	10:36	60-01	11-38	9-82	60·01	7.48	8-67	10-59	9-38	12-29	15-00	1. 20	9-68	12-37	11-70	10-68	11-67	12-07	11-03	10-72	10-99	I	21-41	i	1	cc-4	5.87	10-20	ł	10-81	6-17	I	I
Index Number	781-53	952-97	1482-64	2307-44	91.6/11	410-62	455-86	260-62	1316-37	1024-42	1113-47	932-96	1799-24	1794-29	1350-71	4C-97C	3258-70	692:74	464-58	901-08	1041-97	1030-78	1262-81	1861-87	1006-66	1191-51	942-33	1725-48	1008-87	674-24	662-09	941-25 252 25	87-060	07-/16	1206-26	343-33	926-82	565-31	1276-92	926-59	1793-10
Number of Constituents	209	88 8	5 , 5	2	2 :	55	-	11	23	188	21	21	16	E 1	55	1	61	T	15	16	18	52	12	12	2	25	488	12	500	127	~	96 I	1		. 7	32	76	7	æ	713	100
Group/Subsection	I CAPITAL GOODS	2 Building Materials	5 Contracting, Construction	4 Electricals) Electronics	o Mechanical Engineering	8 Metals & Metal Forming	9 Motors	10 Other Industrial Materials						29 Leisure	31 Packaging & Paper	32 Publishing & Printing					42 Chemicals		45 Shipping and Transport	47 Telephone Networks	48 Miscellaneous		51 Oil & Gas	59 500 SHARE INDEX	61 FINANCIAL GROUP	62 Banks	65 Insurance (Life)	to insurance (Composite)	0/ Insurance (Brokers) 68 Merchant Banks	69 Property	70 Other Financial	71 INVESTMENT TRUSTS	81 MINING FINANCE	91 OVERSEAS TRADERS	99 ALL SHARE INDEX	F.TS.E. 100 INDEX

Table F--- 1988 changes in F.T.-S.E. 100 Constituents

These changes were made after the close of business on the date indicated:

Date	Deleted	Capitalization (£m)	Added	Capitalization (£m)
24 February	Britoil	2510	Enterprise Oil	884
31 March	Bunzl	637	Blue Arrow	806
	Dixons Group	644	Burmah Oil	891
	Sedgwick Group	702	RMC Group	900
	Standard Chartered	696	Williams Holdings	909
30 June	Globe Investment Trust	740	Lucas Industries	922
6 July	Rowntree	2301	Abbey Life Group	899
30 September	Blue Arrow	600	London & Scottish Marine Oil	1094
20 December	Abbey Life Group	881	British Steel	2500
30 December	Next	526	Standard Chartered	1175
	Williams Holdings	702	Ultramar	1013

		aprianzation		(uuy)	
		Capitalization		Capit	alization
Position	Company	(£m)	Position	Company	(£m)
1	British Telecommunications	15469-2	51	BET	1595-0
2	British Petroleum	15183-2	52	Rank Organisation	1592.6
3	'Shell' Transport & Trading	11566-0	53	Lonrho	1591-3
4	Glaxo Holdings	7992·1	54	Argyll Group	1590.4
5	Imperial Chemical Industries	6885-8	55	Guardian Royal Exchange	1545.7
6	BAT Industries	6882.6	56	Pilkington	1517.9
7	British Gas	6688.9	57	Asda Group	1516-2
8	Hanson	5923.6	58	Enterprise Oil	1512-1
9	General Electric	5042.9	59	Hammerson Property Inv & Dev	1510-2
10	BTR	5030-3	60	STC	1488.5
11	Barclays	4512.9	61	Trafalgar House	1472.4
12	Marks & Spencer	4104.7	62	Scottish & Newcastle Breweries	1467-4
13	National Westminster Bank	3979-3	63	Whithread	1455-5
14	Cable and Wireless	3855-3	64	Gateway Corporation	1421.0
15	Grand Metropolitan	3687.9	65	Commercial Union Assurance	1416.6
16	Unilever	3683-1	66	Legal & General Group	1383-1
17	Beecham Group	3523-2	67	BAA	1375.7
18	Wellcome	3470.9	68	Associated British Foods	1372.7
19	RTZ Corporation	3285.9	69	Reckitt & Colman	1366-3
20	Allied-Lyons	3279.7	70	Fisons	1365-1
21	Guinness	3082-5	71	Rothmans International 'B'	1278.4
22	J Sainsbury	2986·5	72	Ranks Hovis McDougall	1220.7
22	Prudential Corporation	2980-5	73	United Biscuits (Holdings)	1220.7
24	Consolidated Gold Fields	2757.1	74	Standard Chartered	1172.6
25	Land Securities	2735-1	75	Maxwell Communication Corpn	1167-2
26	Bass	2722.6	76	British Airways	1153.4
20	Lloyds Bank	2632.9	77	Redland	1147.0
28	British Steel (f.pd)	2520.0	78	Smith & Nephew	1126.7
29	Great Universal Stores 'A'	2510.0	79	British Aerospace	1101.3
30	Midland Bank	2261.9	80	Blue Circle Industries	1100.4
31	Boots	2136.7	81	Hawker Siddeley Group	1070.7
32	Peninsular & Oriental Steam Nav	2086.7	82	Rolls-Royce	1061.9
33	Tesco	2046-0	83	Woolworth Holdings	1038-3
34	Reed International	2043.3	84	Royal Bank of Scotland Group	1036.9
35	Cadbury Schweppes	2043 5	85	Courtaulds	1030-9
36	Trusthouse Forte	1990.9	86	Amstrad	1024.4
37	Sun Alliance & London Insurance	1951-0	87	Ultramar	1010.3
38	BOC Group	1943.5	88	Hillsdown Holdings	1008.0
39	Royal Insurance Holdings	1837.9	89	RMC Group	979.1
40	Ladbroke Group	1837-3	90	English China Clays	967.8
41	General Accident Fire & Life	1817.7	91	Granada Group	951·6
42	Racal Electronics	1776-2	92	Cookson Group	931·0 936·4
43	Thorn EMI	1742.0	93	Burton Group	936.3
44	Sears	1679.5	93	London & Scottish Marine Oil	936·3 908·3
45	Reuters Holdings 'B'	1675-7	95	BPB Industries	908·3 904·2
46	MEPC	1675-2	95	Lucas Industries	904·2 864·3
40	Plessey	1673-2	90	Burmah Oil	804·3 844·0
48	Tarmac	1643-4	97	Storehouse	844·0 816·6
40	TSB Group	1643.4	98	Coats Viyella	784.9
50	Pearson	1596.4	100	British & Commonwealth Holdings	
50	i varoon	1370.4	1 100	british & Commonweatur Holdings	130.0

Table G—Constituents of the F.T.-S.E. 100 Index immediately after the 30 December 1988 changes (with capitalizations on that day)