

LISTED FAMILY FIRMS
**INDUSTRIAL AND GEOGRAPHICAL CONTEXT,
GOVERNANCE AND PERFORMANCE**

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The Institute for Family Business

by

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ABSTRACT

This report investigates listed family firms in the UK and focuses on their incidence, industrial and geographical context, governance and performance. At the time of writing we identified 70 family firms who were listed in the years 2007-2009. The firms were listed on the London Stock Exchange, ShareMark or the Plus Stock Exchange (the latter two stock exchanges for smaller firms). In order to qualify as a family firm the European definition of a public family firm was applied which stipulates that 25% of the equity is owned by the family. The average turnover of listed family firms in 2009 was £407 million and they employed on average 2,907 employees. Comparisons have been made throughout the report with a comparator group which consists of all listed firms in the UK (approximately 3,300 firms). Listed family firms in the UK have superior profitability and considerably less debt than the population of listed firms in the UK but have a lower growth rate.

EXECUTIVE SUMMARY

The comparator group for listed UK family firms is all listed UK firms.

Age, Industry and Region

- The average age of listed family firms was 45-47 years compared to 21-22 years for the comparator group.
- The largest sectors where listed family firms are found are real estate activities (13%), wholesale and commission trade (9%), other business activities (9%) and the retail trade (7%). In the comparator group the most common industries are financial intermediation (31.7%), other business activities (13.7%), computer and related activities (5.9%) and real estate (4.3%).
- Almost a third of the listed family firms are based in London (30%), a fifth are in the North West (20%) and a substantial minority are in the West Midlands (14%). In the comparator group the firms are primarily also in London (52%) followed by the South East (11%) and Scotland (7%).

Governance

- The average age of listed family firm directors in 2009 was 55 years.
- Only a small proportion of the directors are female (6%).
- Compared to the comparator group, the directors of the listed family firms (1) are about the same age but have much more experience (2) are less likely to be female (3) live further away from the business (4) have fewer directorships and (5) are less likely to be replaced.

Financial Indicators

- Average return on asset (ROA) and profit margins for listed family firms are negative for all of the analysis years i.e. 2007-2009
- On average pre-tax profits increased for listed family firms in 2007 and 2008 but decreased in 2009.

- Compared to the comparator group, listed family firms (1) have lower Current Assets/Current Liabilities, Net Cash/Net Worth, Quick Assets/Current Assets ratios indicating lower liquidity (2) have lower net worth but higher retained profit/total assets indicating a lower growth potential (3) have a higher ROA (Pre-tax Profit/Total Assets) and higher profit margins (Pre-tax Profit/Sales) indicating superior profitability and (4) have lower Operating Profit/Interest Payments ratio, Total Debt/Net Worth, and Bank Overdraft & Short Term Loans/Current Assets indicating that they have considerably less debt.

Turnover and Number of Employees

- The listed family firms had an average turnover of £407 million and an average of 2,907 employees in 2009. These values are significantly smaller than those for the comparator group (£1.25 billion, 4,343 employees) but still much larger than the UK population of large private firms (£25 million, 178 employees).
- The growth in the number of employees and turnover between 2008 and 2009 was 0.004% and 0.1% respectively for listed family firms suggesting static conditions compared to a growth in turnover of 11% exhibited by the comparator group over the same period.

Employee Wages and Directors Emoluments

- The average emolument for directors of listed family firms in 2009 was £145,000 per annum and the average employee salary was £32,000 per annum.
- Dividends payable by listed family firms in 2009 amounted to £14 million.
- The average salaries and emoluments are greater in the comparator group. Dividends payable are significantly greater (£81 million in 2009).

1. FIRM SIZE

Analysis is carried out for the period 2007 to 2009 using data compiled from “Companies House” in the UK. Separate samples are generated for each of the years examined (2007, 2008, and 2009). Samples include incorporated firms that filed at least one set of annual accounts until the start date of each analysis year (e.g. 01/Jan/2007). Where group holding firms exist these are included in the dataset and subsidiaries are removed in order to avoid double counting. “Companies Act 2006” definitions (accounting requirements) are used to define firm size; SMALL, MEDIUM, or LARGE. Tables 1 and 2 provide the sample distribution for each analysis year and firm size category for listed family firms and all listed firms respectively. There were 70 listed family firms in the period 2007 to 2009; none of these were small, 11 were medium-sized (16%) and 59 were large (84%). Similarly, the population of listed firms in the UK consists mostly of large firms. For example in 2009, 73% were large, 24% were medium and 3% were small firms.

Table 1: Sample Size (Number of Firms) – Listed Family Firms

	Small	Medium	Large	Total
2007	0	11	59	70
2008	0	11	59	70
2009	0	11	59	70

Source: NUBS/CMRC

Table 2: Sample Size (Number of Firms) – All Listed Firms

	Small	Medium	Large	Total
2007	22	846	2429	3297
2008	20	830	2535	3385
2009	87	819	2482	3388

Source: NUBS/CMRC

2. FIRM AGE

Firm age is calculated in years between the start date of an analysis year and the incorporation date of a firm. Table 3 displays average firm age for listed family firms

compared to the comparator group. The mean (average) age of family firms is 45-47 years compared to between 21 and 22 years for all listed firms.

Table 3: Firm Age (Years)

	Listed Family Firms		All Listed Firms
	No. of Firms	Mean Age	Mean Age
2007	70	45	21
2008	70	46	21
2009	70	47	22

Source: NUBS/CMRC

3. INDUSTRIAL DISTRIBUTION

Firm sector is identified using “Annual Return” documents. Incorporated firms are required to report in which sector(s) they operate in their annual return documents. The UK Standard Industrial Classification of Economic Activities (UK SIC(92))² is used to classify businesses and firms’ primary sector is employed to detect their main industries. Although the main sections of SIC92 cover 17 broad industries, the present analysis employs all subsections (60 in total) that are denoted by the first two digits of the 5-digit very detailed SIC92 classifications.

Tables 4 and 5 display 2009 sector distributions for listed family firms and for the comparator group, respectively. The majority of listed family firms are engaged in real estate activities (13%), wholesale and commission trade (9%), other business activities (9%) and retail (7%).

Amongst listed family firms the lowest incidences (1% of the total) are in sectors such as agriculture, publishing & printing, manufacture of rubber & plastics, manufacture of electrical machinery, manufacture of medical and optical instruments, manufacture of furniture, air transport and finally renting machinery & equipment. In the comparator group the most common industries are financial intermediation (31.7%), other business activities (13.7%), computer and related activities (5.9%) and real estate (4.3%).

Table 4: Industrial Distribution (2009) – Listed Family Firms

SIC92	No. of Firms	%
70 - REAL ESTATE ACTIVITIES	9	12.9
51 - WHOLESALE TRADE AND COMMISSION TRADE	6	8.6
74 - OTHER BUSINESS ACTIVITIES	6	8.6
52 - RETAIL TRADE	5	7.1
45 - CONSTRUCTION	4	5.7
55 - HOTELS AND RESTAURANTS	4	5.7
65 - FINANCIAL INTERMEDIATION	4	5.7
72 - COMPUTER AND RELATED ACTIVITIES	4	5.7
15 - MANUFACTURE OF FOOD PRODUCTS, BEVERAGES	3	4.3
64 - POST AND TELECOMMUNICATIONS	3	4.3
13 - MINING OF METAL ORES	2	2.9
24 - MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	2	2.9
26 - MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	2	2.9
28 - MANUFACTURE OF FABRICATED METAL PRODUCTS	2	2.9
29 - MANUFACTURE OF MACHINERY AND EQUIPMENT	2	2.9
67 - ACTIVITIES AUXILIARY TO FINANCIAL INTERMEDIATION	2	2.9
92 - RECREATIONAL, CULTURAL AND SPORTING ACTIVITIES	2	2.9
01 - AGRICULTURE, HUNTING AND RELATED SERVICE ACTIVITIES	1	1.4
22 - PUBLISHING, PRINTING AND REPRODUCTION OF RECORDED MEDIA	1	1.4
25 - MANUFACTURE OF RUBBER AND PLASTIC PRODUCTS	1	1.4
31 - MANUFACTURE OF ELECTRICAL MACHINERY AND APPARATUS	1	1.4
33 - MANUFACTURE OF MEDICAL, PRECISION AND OPTICAL INSTRUMENTS, ETC.	1	1.4
36 - MANUFACTURE OF FURNITURE, ETC.	1	1.4
62 - AIR TRANSPORT	1	1.4
71 - RENTING OF MACHINERY AND EQUIPMENT WITHOUT OPERATOR	1	1.4
Total	70	100.0

Source: NUBS/CMRC

Table 5: Industrial Distribution (2009) – All Listed Firms*

SIC92	No. of Firms	%	SIC92	No. of Firms	%
65	1072	31.7	25	20	0.6
74	463	13.7	71	19	0.6
72	199	5.9	30	18	0.5
70	147	4.3	36	18	0.5
51	110	3.2	34	16	0.5
67	110	3.2	41	16	0.5
92	88	2.6	14	15	0.4
52	84	2.5	10	14	0.4
13	73	2.2	60	13	0.4
11	71	2.1	85	12	0.4
33	66	1.9	01	11	0.3
24	65	1.9	27	11	0.3
55	62	1.8	35	11	0.3
73	56	1.7	80	11	0.3
64	53	1.6	90	8	0.2
29	44	1.3	62	7	0.2
45	42	1.2	21	6	0.2
32	40	1.2	23	6	0.2
22	39	1.2	93	6	0.2
66	37	1.1	18	5	0.1
15	32	0.9	20	4	0.1
63	28	0.8	61	3	0.1
31	27	0.8	02	2	0.1
28	26	0.8	12	2	0.1
40	26	0.8	16	2	0.1
50	26	0.8	05	1	0.0
26	22	0.6	19	1	0.0
17	20	0.6	37	1	0.0
			TOTAL	3,387	100.0

Source: NUBS/CMRC

* SIC92 codes are given in the Appendix

4. REGIONAL DISTRIBUTION

Firm location is identified through the registered addresses of the firms. These registered addresses are then matched to the UK government office regions, Scotland and Wales. Table 6 displays the regional distributions for the listed family firms and for the comparator group for year 2009. The table reveals that almost a third of the listed family firms are headquartered in London (30%), a fifth are in the North West (20%) and a substantial minority are in the West Midlands (14%). There are few listed family firms in Wales (3%), the South West (3%), the East Midlands (3%) and the North East (1.5%). In the comparator group the firms are primarily also in London (52%) followed by the South East (11%) and Scotland (7%).

Table 6: Regional Distribution (2009)

REGION	Listed Family Firms		All Listed Firms	
	No. of Firms	%		%
North East	1	1.5		1.5
North West	13	19.7		5.6
Yorkshire	5	7.6		5.6
East Midlands	2	3.0		2.1
West Midlands	9	13.6		4.9
East of England	6	9.1		5.3
London	20	30.3		52.1
South East	3	4.5		11.0
South West	2	3.0		3.7
Wales	2	3.0		0.9
Scotland	3	4.5		7.3
TOTAL	66	100.0		100.0

Source: NUBS/CMRC

5. GOVERNANCE

Information relating to the board of directors of each firm is gathered as of the start date of the year of analysis. Board characteristics regarding age and experience of directors, owner management, gender composition, proximity of directors to firms' registered addresses, multiple directorships and recent director turnover are investigated. Table 7 provides the mean (average) values of governance related variables for the listed family firms and the comparator group at the beginning of 2009.

Table 7: Governance Indicators (2009)

VARIABLE	Listed Family Firms		All Listed Firms
	No. of Firms	Mean	Mean
Average Age of Directors (years)	70	55.4	53.2
Average Experience (days)	70	4300.5	3552.7
Average Experience in the Industry (days)	70	3398.3	2560.3
Incidence of Female Directors (%)	70	5.9	7.0
Director Proximity (%)	70	27.2	19.0
Multiple Directorships (per director)	70	14.2	27.6
Recent Director Turnover (%)	70	12.0	18.0

Source: NUBS/CMRC

The average age of listed family firm directors in 2009 was 55 years. Only a small proportion of the directors were female (6%).

Compared to the comparator group, the directors of the listed family firms

- are about the same age but have much more experience
- are less likely to be female
- live further away from the business
- have fewer directorships
- are less likely to be replaced

6. FINANCIAL INDICATORS

Financial indicators of firms are investigated in four main sub-groups. For the first group, working capital (operating) cycle, measures cover factors related to trade credit use, inventories (unsold goods) and the extent of liquid and current assets. The second group, growth potential, encompasses measures for net worth and retained profits. The third group, profitability, includes measures of turnover (sales) and profit related factors. The fourth group, leverage, examines the level of loan capital among firms.

Since the majority of the measures related to financial performance are presented as ratios, values are not deflated. However, some measures that capture changes in some concepts (e.g. change in net worth) are adjusted using the GDP deflator.

As SMALL and MEDIUM sized firms have some filing exemptions regarding their annual accounts, it is not possible to cover all four financial performance groups for every firm in the sample. SMALL sized firms are only required to submit “Balance Sheet” whereas MEDIUM sized firms are required to submit an “abridged” form of “Profit and Loss Account” in addition to “Balance Sheet”. Hence, the third group and the fourth group, profitability and leverage, are not applicable for SMALL sized firms. Similarly, the fourth group, leverage, is not applicable for MEDIUM sized firms. Further analysis is carried out accordingly.

Table 8: Working Capital Cycle Measure (2007-2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Current Assets/Current Liabilities	2007	70	2.6	11.7
	2008	70	2.4	20.1
	2009	70	2.6	19.4
Net Cash/Net Worth	2007	70	0.3	21.6
	2008	70	0.2	11.6
	2009	70	-8.2	8.1
Quick Assets/Current Assets	2007	70	2.2	11.4
	2008	70	2.0	19.8
	2009	70	2.2	19.1
Inventory/Total Assets	2007	70	0.11	0.05
	2008	70	0.12	0.05
	2009	70	0.12	0.05
Inventory/Current Assets	2007	70	0.2	0.1
	2008	70	0.2	0.1
	2009	70	0.2	0.1
Inventory/Working Capital	2007	70	40.9	23.7
	2008	70	17.2	6.7
	2009	70	15.6	27.7
Trade Debtors/Total Assets	2007	70	15.0	11.3
	2008	70	15.5	10.7
	2009	70	14.6	10.0
Trade Creditors/Total Liabilities	2007	70	0.21	0.18
	2008	70	0.20	0.18
	2009	70	0.18	0.17
Trade Creditors/Trade Debtors	2007	63	5.0	5.4
	2008	65	4.9	8.1
	2009	63	2.8	3.8

Source: NUBS/CMRC

Tables 8-11 show a detailed investigation of financial indicators for the listed family firms and for the comparator group.

In terms of working capital measures (Table 8) the main differences between the listed family firms and the comparator group are in the Current Assets/Current Liabilities, Net Cash/Net Worth, Quick Assets/Current Assets which are all much lower for the listed family firms.

Net worth and Retained Profits/Total Assets figures are shown in Table 9. The family firms have lower Net Worth than the comparator group but higher Retained Profit/Total Assets. The Changes in Net Worth fluctuates suggesting no clear differences.

Table 9: Growth Potential Measures (2007-2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Net Worth	2007	70	180,022,614.3	491,892,074.0
	2008	70	169,502,542.9	501,886,792.9
	2009	70	125,950,471.4	501,228,884.6
Change in Net Worth (%)	2007	68	2.6	-8.5
	2008	70	3.8	-0.1
	2009	70	-11.5	0.1
Retained Profits/Total Assets	2007	70	-35.5	-190.9
	2008	70	-22.8	-231.7
	2009	70	-33.5	-618.7

Source: NUBS/CMRC

In terms of profitability (Table 10), the results are somewhat mixed. However, the listed family firms have a higher ROA (Pre-tax Profit/Total Assets) and a higher profit margin (Pre-tax Profit/Sales) than the comparator group.

Leverage measures are indicators of the amount of debt a firm has and its ability to repay it. It appears that the listed family firms have significantly lower ratios than the comparator group for three out of the four measures in Table 11; Operating Profit/Interest Payments ratio, Total Debt/Net Worth, and Bank Overdraft & Short Term Loans/Current Assets indicating that listed family firms have considerably less debt.

Table 10: Profitability Measures (2007-2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Sales/Total Assets	2007	70	127.9	119.7
	2008	70	94.9	62.7
	2009	70	100.0	270.9
Pre-tax Profit/Total Liabilities	2007	70	-72.6	-48.7
	2008	70	3.1	-162.6
	2009	70	-13.3	138.1
Pre-tax Profit/Total Assets (ROA)	2007	70	-39.9	-53.6
	2008	70	-4.1	-33.6
	2009	70	-10.1	-161.7
Pre-tax Profit/Sales (Profit Margin)	2007	68	-90.9	-249.7
	2008	66	-24.6	-408.3
	2009	67	-51.7	-479.4
Change in Pre-tax Profit (%)	2007	68	7.6	7.5
	2008	70	12.1	2.5
	2009	70	-5.0	-6.1

Source: NUBS/CMRC

Table 11: Leverage Measures (2007-2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Operating Profit/Interest Payments	2007	64.00	27.7	70.5
	2008	66.00	16.0	63.0
	2009	59.00	7.5	78.7
Total Debt/Net Worth	2007	61.00	62.2	89.0
	2008	62.00	60.1	90.4
	2009	67.00	76.1	93.8
Total Debt/Total Assets	2007	70.00	0.2	0.3
	2008	70.00	0.2	0.4
	2009	70.00	0.2	0.9
Bank Overdraft and Short Term Loans/Current Assets	2007	70.00	26.3	196.7
	2008	70.00	40.3	211.2
	2009	70.00	36.7	1318.9

Source: NUBS/CMRC

7. TURNOVER AND NUMBER OF EMPLOYEES

The listed family firms had an average turnover of £407 million and an average of 2,907 employees in 2009. These values are significantly smaller than those for the comparator group but still much larger than those for large private UK firms (large family and non-family private firms combined; turnover = £25 million, employees = 178)¹. The growth in the number of employees and turnover between 2008 and 2009 is -0.004% and 0.1%, respectively, for listed family firms suggesting static conditions compared to growth in turnover of 11% exhibited by the comparator group.

Table 12: Turnover and Number of Employees (2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Turnover	2009	70	406,611,400.0	1,247,726,510.5
Growth in Turnover (%)	2008/9	68	0.1	10.7
Number of Employees	2009	68	2,906.5	4,342.7
Growth in Number of Employees (%)	2008/9	68	-0.004	0.2

Source: NUBS/CMRC

8. EMPLOYEE WAGES, DIRECTORS EMOLUMENTS AND DIVIDENDS

The average emolument for directors of listed family firms in 2009 was £145,000 per annum and the average employee salary was £32,000 per annum. Dividends payable by listed family firms in 2009 amounted to £14 million. The average salaries, emoluments and dividends payable are higher in the comparator group, particularly the Dividends Payable (Table 13).

Table 13: Wages and Salaries, Directors Emoluments and Dividends (2009)

VARIABLE	YEAR	Listed Family Firms		All Listed Firms
		No. of Firms	Mean	Mean
Wages and Salaries per EMPLOYEE	2009	68	32,069.8	52,247.7
Directors Emoluments per DIRECTOR	2009	69	145,079.8	167,751.4
Dividends Payable	2009	70	14,070,028.6	81,185,900.2

Source: NUBS/CMRC

¹ Results from the survey on private firms in the UK for the IFB by the same authors (UK Family Businesses: Industrial and Geographical Context, Governance and Performance, 2010)

9. APPENDIX

LISTED FAMILY FIRM

In this study a listed family firm conforms to the following European definition:

Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital.

<http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/family-business/>

FIRM SIZE DESCRIPTION

“There are 3 sizes of companies to consider when preparing accounts; small, medium or large. There are thresholds for turnover, balance sheet total (meaning the total of the fixed and current assets) and the average number of employees, which determine whether the company is small or medium-sized. Any companies that do not meet the criteria for small or medium are large companies and will have to prepare and submit full accounts.

A small company can prepare and submit accounts according to special provisions in the Companies Act 2006 and the relevant regulations. This means that they can choose to disclose less information than medium-sized and large companies. A small company must meet at least two of the following conditions:

- annual turnover must be not more than £6.5 million;
- the balance sheet total must be not more than £3.26 million;
- the average number of employees must be not more than 50.

Small companies do not have to deliver a copy of the directors’ report or the profit and loss account to Companies House. Small companies preparing Companies Act accounts can deliver an abbreviated balance sheet.

As with a small company, a medium-sized company is determined by its turnover, balance sheet total (meaning the total of the assets) and average number of employees. A medium-sized company can prepare accounts according to special provisions applicable to medium-sized companies. It can also choose to submit reduced information to Companies House. To be a medium-sized company, the company must meet at least two of the following conditions:

- annual turnover must be no more than £25.9 million;
- the balance sheet total must be no more than £12.9 million;
- the average number of employees must be no more than 250

Abbreviated accounts of a medium-sized company must include the abbreviated profit and loss account (this must be full if preparing IAS accounts) and the full balance sheet”.

<http://www.companieshouse.gov.uk/about/gbhtml/gp2.shtml#ch6>

SIC92 DESCRIPTION

“A Standard Industrial Classification (SIC) was first introduced into the United Kingdom in 1948 for use in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. The classification provides a framework for the collection, tabulation, presentation and analysis of data and its use promotes uniformity. In addition, it can be used for administrative purposes and by non-government bodies as a convenient way of classifying industrial activities into a common structure.

Since 1948 the classification has been revised in 1958, 1968, 1980, 1992 and 1997. Revision is necessary because, over a period of time, new products and the new industries to produce them emerge and shifts of emphasis occur in existing industries. It is not always possible for the system to accommodate such developments and after a period of time updating the classification is the most sensible action.

UK SIC(92) is based exactly on NACE Rev 1 but, where it was thought necessary or helpful, a fifth digit has been added to form subclasses of the NACE Rev 1 four digit classes. Thus, UK SIC(92) is a hierarchical five digit system. However, at the first or highest level of aggregation, unlike the SIC(80) which had 10 divisions, UK SIC(92) is divided into 17 sections, each denoted by a single letter from A to Q. Some sections are, in turn, divided into subsections (each denoted by the addition of a second letter). The letters of the sections or subsections can be uniquely defined by the next breakdown, the divisions (denoted by two digits).

The following table gives a broad comparison between the sections of UK SIC(92) and the former divisions, although the correlation is not exact as relatively minor differences in coverage are ignored”.

http://www.statistics.gov.uk/methods_quality/sic/

UK SIC92 Main Industrial Sections

SIC92	Main Industrial Section
A	AGRICULTURE, HUNTING AND FORESTRY
B	FISHING
C	MINING AND QUARRYING
D	MANUFACTURING
E	ELECTRICITY, GAS AND WATER SUPPLY
F	CONSTRUCTION
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES, MOTORCYCLES AND PERSONAL AND HOUSEHOLD GOODS
H	HOTELS AND RESTAURANTS
I	TRANSPORT, STORAGE AND COMMUNICATION
J	FINANCIAL INTERMEDIATION
K	REAL ESTATE, RENTING AND BUSINESS ACTIVITIES
L	PUBLIC ADMIN. AND DEFENCE; COMPULSORY SOCIAL SECURITY
M	EDUCATION
N	HEALTH AND SOCIAL WORK
O	OTHER COMMUNITY, SOCIAL & PERSONAL SERVICE ACTIVITIES
P	PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS
Q	EXTRA - TERRITORIAL ORGANISATIONS AND BODIES

UK SIC92 First Two Digit Descriptions

SIC92 2-digit	Description
01	AGRICULTURE, HUNTING AND RELATED SERVICE ACTIVITIES
02	FORESTRY, LOGGING AND RELATED SERVICE ACTIVITIES
05	FISHING
10	MINING OF COAL AND LIGNITE
11	EXTRACTION OF CRUDE PETROLEUM AND NATURAL GAS
12	MINING OF URANIUM AND THORIUM ORES
13	MINING OF METAL ORES
14	OTHER MINING AND QUARRYING
15	MANUFACTURE OF FOOD PRODUCTS, BEVERAGES
16	MANUFACTURE OF TOBACCO PRODUCTS
17	MANUFACTURE OF TEXTILES
18	MANUFACTURE OF WEARING APPAREL; DRESSING AND DYEING OF FUR
19	MANUFACTURE OF LEATHER AND LEATHER PRODUCTS
20	MANUFACTURE OF WOOD AND WOOD PRODUCTS
21	MANUFACTURE OF PULP, PAPER AND PAPER PRODUCTS
22	PUBLISHING, PRINTING AND REPRODUCTION OF RECORDED MEDIA
23	MANUFACTURE OF COKE, REFINED PETROLEUM PRODUCTS AND NUCLEAR FUEL
24	MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS
25	MANUFACTURE OF RUBBER AND PLASTIC PRODUCTS
26	MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS
27	MANUFACTURE OF BASIC METALS
28	MANUFACTURE OF FABRICATED METAL PRODUCTS
29	MANUFACTURE OF MACHINERY AND EQUIPMENT
30	MANUFACTURE OF OFFICE MACHINERY AND COMPUTERS
31	MANUFACTURE OF ELECTRICAL MACHINERY AND APPARATUS
32	MANUFACTURE OF RADIO, TELEVISION AND COMMUNICATION EQUIPMENT
33	MANUFACTURE OF MEDICAL, PRECISION AND OPTICAL INSTRUMENTS, ETC.
34	MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI- TRAILERS
35	MANUFACTURE OF OTHER TRANSPORT EQUIPMENT
36	MANUFACTURE OF FURNITURE, ETC.
37	RECYCLING
40	ELECTRICITY, GAS, STEAM AND HOT WATER SUPPLY
41	COLLECTION, PURIFICATION AND DISTRIBUTION OF WATER
45	CONSTRUCTION
50	SALE, MAINTENANCE AND REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
51	WHOLESALE TRADE AND COMMISSION TRADE
52	RETAIL TRADE
55	HOTELS AND RESTAURANTS

UK SIC92 First Two Digit Descriptions - continued

SIC92 2-digit	Description
60	LAND TRANSPORT; TRANSPORT VIA PIPELINES
61	WATER TRANSPORT
62	AIR TRANSPORT
63	SUPPORTING AND AUXILIARY TRANSPORT ACTIVITIES
64	POST AND TELECOMMUNICATIONS
65	FINANCIAL INTERMEDIATION
66	INSURANCE AND PENSION FUNDING
67	ACTIVITIES AUXILIARY TO FINANCIAL INTERMEDIATION
70	REAL ESTATE ACTIVITIES
71	RENTING OF MACHINERY AND EQUIPMENT WITHOUT OPERATOR
72	COMPUTER AND RELATED ACTIVITIES
73	RESEARCH AND DEVELOPMENT
74	OTHER BUSINESS ACTIVITIES
75	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY
80	EDUCATION
85	HEALTH AND SOCIAL WORK
90	SEWAGE AND REFUSE DISPOSAL, SANITATION AND SIMILAR ACTIVITIES
91	ACTIVITIES OF MEMBERSHIP ORGANISATIONS
92	RECREATIONAL, CULTURAL AND SPORTING ACTIVITIES
93	OTHER SERVICE ACTIVITIES
95	PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS
99	EXTRA-TERRITORIAL ORGANISATIONS AND BODIES

VARIABLES REGARDING GOVERNANCE (BOARD DYNAMICS)

All variables are calculated by using the information as of the start date of each analysis year.

Average Age of Directors: Total age of directors in years is divided by the number of directors.

Average Experience: The difference in days between the first ever appointment date of a director and the start date of an analysis year is first calculated. The average is then gathered among all directors of a firm.

Average Experience in the Industry: The difference in days between the first ever appointment date of a director in the firm's particular industry and the start date of an analysis year is first calculated. The average is then gathered among all directors of a firm.

Owner-management Degree: Total number of shares directors have is divided by total number of shares.

Incidence of Female Directors: The number of female directors is divided by the number of directors.

Director Proximity: The number of directors who live in the same "county" is divided by the number of directors.

Multiple Directorships: Total number of current directorships of all directors of a firm is divided by the number of directors.

Multiple Directorships in the Industry: Total number of current directorships of all directors in a firm's particular industry is divided by the number of directors.

Recent Director Turnover: The number of past year's director resignations is divided by the number of directors as of the start date of past year.

Changes in variables: % change = [(this year - last year)/last year]

FINANCIAL PERFORMANCE-RELATED MEASURES

Working Capital Cycle Measures:

- Current Assets/Current Liabilities
- Inventory/Working Capital
- Net Cash/Net Worth
- Inventory/Total Assets
- Quick Assets/Current Assets
- Inventory/Current Assets
- Trade Debtors/Total Assets
- Trade Creditors/Total Liabilities
- Trade Creditors/Trade Debtors

Growth Potential:

- Net Worth
- Change in Net Worth (%)
- Retained Profits/Total Assets

Profitability:

- Sales/Total Assets
- Pre-tax Profit/Sales
- Pre-tax Profit/Total Liabilities
- Change in Pre-tax Profit (%)
- Pre-tax Profit/Total Assets

Leverage:

- Operating Profit/Interest Payments
- Total Debt/Total Assets
- Total Debt/Net Worth
- Bank Overdraft and Short Term Loans/Current Assets