

**Company Communications with
Analysts and Fund Managers.
A Study of the Investor Relations
Activities of Large UK Quoted
Companies.**

Volume 1 of 2

Claire Lesley Marston

Ph.D. Thesis

University of Glasgow

Department of Accounting and Finance

December 1993

ProQuest Number: 13818434

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13818434

Published by ProQuest LLC (2018). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Thesis
9834
copy 1
Vol 1



Abstract

This thesis investigates the area of company investor relations with particular emphasis on informal communications between company officials and analysts or fund managers. These communications take the form of meetings of various types, telephone conversations, feedback on analysts' research reports and mailing of information.

The major, overall, question that encapsulates this project seeks to establish the causes, nature and effect of company communications with analysts. Given the extensive financial reporting requirements in the UK and the information disclosure facilities provided by the London Stock Exchange, what causes companies to provide further communication opportunities to analysts?

The overall research problem can be restated in terms of four general research questions:

How much does it cost companies, both in terms of money and organisational effort, to maintain a programme of communications with analysts?

What methods of communication are used by individual companies in getting their message across?

What information is communicated by companies to analysts?

What are the opinions of companies regarding the costs and benefits of communicating with analysts?

An investigation is made of the legal and regulatory framework governing company communications with analysts and fund managers. A review is made of the relevant literature on the role of financial analysts, investor relations as a management discipline, and financial public relations consultancy. Having established the setting within which investor relations occurs, previous empirical and other evidence from the accounting and finance literature is reviewed for information on company communications with analysts.

This study views investor relations as a form of voluntary information disclosure akin to voluntary disclosure in financial reports. As such, several hypotheses are proposed that seek to explain investor relations activity in terms of a selection of company specific dependent variables. This approach follows on from the work of several other researchers who have tested for an association between variables such as company size and level of information disclosure in accounts.

Nine hypotheses are put forward and justified with reference to previous empirical research. The first one is that there may be an association between company size and cost incurred, both in terms of money and organisational effort, in communications with analysts. The second is that there may be an association between the marketability of shares and the cost of company communications with analysts. Number three is that there may be an association between stock market risk measures and the cost of analyst communications. The fourth hypothesis is that the cost of analyst communications may be associated with profitability. The fifth is that gearing may be associated with the cost of analyst communications. Hypothesis number six proposes that recent takeover activity may be associated with the cost of analyst communications. Hypotheses seven and eight are that the level of insider shareholdings and substantial shareholdings may be associated with the cost of the analyst communications programme. Hypothesis nine proposes that the industrial classification of the company may be associated with the cost of analyst communications.

In formulating these hypotheses, cost is used in its broadest terms, indicating not only cash expended but also staff time and organisational effort generally.

The choice of methodology, a postal questionnaire, is then discussed and the execution of the survey is described.

The results of the survey are then set out. This consists of detailed descriptive statistics obtained from an analysis of the questionnaire responses. Many aspects of company communications with analysts and fund managers are covered. The null versions of the hypotheses are

tested using certain answers from the questionnaire data set as dependent variables. Univariate analysis and multivariate analysis is employed.

The results can be summarised in two sections. Firstly, the descriptive statistics which provide an insight into how investor relations are carried out and secondly the results of the hypothesis testing.

It was found that company chief executives and finance directors were usually involved in the investor relations effort. The majority of companies held meetings for and talked on the telephone with, analysts and fund managers. The majority also commented on analysts' research reports and mailed information to analysts and fund managers. The organisational arrangements for carrying out the investor relations process were found to vary widely as did the costs incurred and the number of meetings held. In general the opinions of the respondent companies indicated that investor relations with analysts and fund managers is viewed as a valuable means of communication and that companies were satisfied with their relationship with the City.

Investor relations costs or effort was measured by extracting 21 continuous and 7 ordinal variables from the questionnaire responses, each variable measured different aspects of the investor relations effort. The univariate testing showed that company size was the variable most often significantly positively associated with investor relations effort. Marketability was also frequently an important explanatory variable. It was found that specific risk, insider shareholdings and substantial shareholdings were significantly negatively associated with investor relations effort. The subsequent multivariate analysis confirmed these results for company size and marketability as measured by overseas listings. Substantial shareholdings and insider shareholdings were still significant but for a smaller number of the investor relations variables. Marketability within the UK appeared less important as did specific risk.

Following the analysis stage some overall conclusions are drawn and suggestions made for further investigations.

This study provides a uniquely detailed investigation of investor relations in the UK from the company perspective. As such, both the detailed descriptive information obtained and the hypothesis testing should be of value as an addition to the existing literature on financial disclosure.

Contents (volume 1)

1	Introduction	21
1.1	The research problem	21
1.2	Setting the scene	22
1.3	Financial analysts and fund managers	24
1.4	The investor relations function	25
1.5	The financial public relations consultancy sector	26
1.6	Communications between companies and financial analysts	26
1.7	Formulation of research questions and hypotheses	27
1.8	Design and execution of the research project	28
1.9	Organisation of the investor relations function	29
1.10	Assessment of and execution of the investor relations programme	30
1.11	Company meetings with analysts and fund managers	31
1.12	Telephone conversations, company feedback and mailing of information	32
1.13	Company close seasons and opinions on relationships with analysts and fund managers	33
1.14	Conclusions	34
2	The Legal and Regulatory Framework Governing Communications between Listed Companies and Investment Analysts	35
2.1	Introduction	35
2.2	Statute law	35
2.3	Stock exchange regulation	43
2.4	European Community legislation	46
2.5	The Criminal Justice Bill 1992 and the Criminal Justice Act 1993	48

	Page
2.6	United States legislation and regulation
2.7	Professional organisations and codes of conduct
2.7.1	The Society of Investment Analysts
2.7.2	The Investor Relations Society
2.7.3	The Institute of Directors
2.7.4	The Financial Analysts Federation
2.8	Consultative document on the dissemination of price sensitive information
2.9	Conclusions
3	Identification and Description of the Financial Analyst Group
3.1	Introduction
3.2	Directories as a source of information
3.3	Professional organisations
3.4	Previous research as a source of information describing the financial analyst group
3.5	The work of a financial analyst
3.6	Conclusions
4	The Investor Relations Function within Companies
4.1	Introduction
4.2	Establishment of an investor relations function within the company
4.3	Overview of the activities of the investor relations function
4.4	Investor relations and the analyst
4.5	Identification of the population of investor relations personnel
4.6	Surveys of investor relations
4.7	The London Stock Exchange Conference for Industry 1988
4.8	The Investor Relations Society

	Page
4.9	Investor relations in the United States of America 108
4.10	Conclusions 112
5	The Financial Public Relations Consultancy Sector 113
5.1	Introduction 113
5.2	Identification of the population of financial public relations consultancies 113
5.3	Overview of the role of financial public relations consultancies 114
5.4	The external financial public relations consultant and the investment analyst 116
5.5	The Institute of Public Relations - City and Financial Group 117
5.6	Conclusions 122
6	Review of Literature Relevant to Communications between Companies and Financial Analysts 124
6.1	Introduction 124
6.2	Information disclosure in general and specifically related to disclosures by companies to analysts 124
6.3	Surveys of analysts' research activity 127
6.4	Other research findings 136
6.5	Other relevant literature 138
6.6	Conclusions 143
7	Research Questions and Hypotheses 145
7.1	Introduction 145
7.2	The general research questions arising from the literature 145
7.3	Formulation of specific hypotheses 153
7.3.1	The association between company size and the cost of communications with analysts (hypothesis H1) 153

	Page
7.3.2 The association between marketability of shares and the cost of company communication with analysts (hypothesis H2)	155
7.3.3 The association between risk measures and the cost of analyst communications (hypothesis H3)	157
7.3.4 The association between profitability and the cost of analyst communications (hypothesis H4)	159
7.3.5 The association between gearing and the cost of analyst communications (hypothesis H5)	161
7.3.6 The association between recent takeovers and the cost of analyst communications (hypothesis H6)	162
7.3.7 The association between insider shareholdings and the cost of analyst communications (hypothesis H7)	163
7.3.8 The association between substantial shareholdings and the cost of analyst communications (hypothesis H8)	165
7.3.9 The association between line of business and the cost of analyst communications (hypothesis H9)	166
7.3.10 The plan for hypothesis testing	167
7.4 Conclusions	168
8 Design and Execution of the Research Project	169
8.1 Introduction	169
8.2 Choice of methodology	169
8.3 Design of questionnaire	172
8.4 Population and response rate	173
8.5 Case study observations	175
8.6 The independent variables	175
8.6.1 Choice and source of variables	175

	Page
8.6.2 Descriptive statistics for independent variables	178
8.7 Conclusions	180
9 Organisation of the Investor Relations Function: Results and Analysis	182
9.1 Introduction	182
9.2 Results of questionnaire survey: The organisation of the investor relations function	182
9.2.1 Director involvement in investor relations	182
9.2.2 Organising and staffing the investor relations function	183
9.2.3 The investor relations budget and consultancy expenditure	184
9.2.4 Investor relations policy	185
9.3 Results of hypothesis testing	186
9.3.1 Introduction	186
9.3.2 The percentage of the directorate involved in managing or executing the investor relations programme (%DIRINIR)	188
9.3.3 The director involvement index (INDEX)	192
9.3.4 Director days devoted to investor relations per annum (DIRDAYS)	193
9.3.5 The annual investor relations budget (BUDGET)	195
9.3.6 The cost incurred in the past twelve months on an external investor relations consultant (COSTS)	197
9.3.7 The existence of a designated investor relations officer (IROFFICER)	199
9.3.8 The existence of a designated investor relations staff (IRSTAFF)	200
9.3.9 The existence of a separate investor relations department (IRDEPT)	201

	Page
9.3.10 The existence of an external investor relations consultant (IRCONS)	202
9.4 Multivariate analysis of data on organisation of investor relations	203
9.5 Conclusions	207
10 Companies' Assessment of and Execution of the Investor Relations Programme: Results and Analysis	213
10.1 Introduction	213
10.2 Results of questionnaire survey: Assessing the contribution of the investor relations function	213
10.3 Results of questionnaire survey: Execution of the investor relations programme	214
10.4 Results of hypothesis testing	215
10.4.1 Introduction	215
10.4.2 Whether or not the company had commissioned surveys (SURVEYS(Y/N))	217
10.4.3 The number of surveys commissioned (SURVEYS(A), SURVEYS(B) and SURVEYS	218
10.4.4 The index of investor relations activity (ACTIVITY)	220
10.4.5 Importance of the individual investor relations activities (GENERAL, SPECIAL, TELEPHONE, FEEDBACK and MAILING)	221
10.5 Multivariate analysis of data on assessment of the investor relations function	223
10.6 Conclusions	225
11 Company Meetings with Analysts and Fund Managers: Results and Analysis	227
11.1 Introduction	227

	Page
11.2	227
Results of questionnaire survey: Company meetings with analysts and fund managers	
11.2.1	227
Organisation of meetings for analysts and fund managers	
11.2.2	228
Number of meetings held by companies in the past twelve months and size of analyst following	
11.2.3	228
Provision of information on past performance and future prospects	
11.3	229
Results of hypothesis testing	
11.3.1	229
Introduction	
11.3.2	230
Data on meetings and analyst following	
11.4	234
Multivariate analysis of data on meetings and analyst following	
11.5	237
Conclusions	
 12	 238
Telephone Conversations, Company Feedback on Analysts' Reports and Mailing Information: Results and Analysis	
12.1	238
Introduction	
12.2	238
Results of questionnaire survey. Telephone conversations with analysts and fund managers	
12.3	239
Results of questionnaire survey. Company feedback on sell-side analysts' reports	
12.4	241
Results of questionnaire survey. Mailing information to analysts and fund managers	
12.5.	242
Results of hypothesis testing	
12.5.1	242
Introduction	
12.5.2	243
The number of sell-side analysts' reports produced (REPORTS) and passed to the company for comment (COMMENT)	

	Page
12.5.3 The mailing of information to sell-side analysts (MAILING(A)) and buy-side analysts and fund managers (MAILING(B))	245
12.5.4 The size of the company's mailing list	247
12.6 Multivariate analysis of data on analysts' reports and mailing lists	249
12.7 Conclusions	252
 13 Company Close Seasons and Opinions on Relationships with Analysts and Fund Managers: Results and Analysis	 254
13.1 Introduction	254
13.2 Company close seasons	254
13.3 Opinions on relationships with analysts and fund managers	256
13.4 Analysis of results	259
13.4.1 Introduction	259
13.4.2 The existence of close seasons	260
13.4.3 The length of the close seasons	262
13.4.4 Opinions	263
13.5 Conclusions	268
 14 Conclusions	 270
14.1 Introduction	270
14.2 Descriptive statistics on company communications with analysts and fund managers	270
14.2.1 The organisation of the investor relations function	271
14.2.2 Assessing the contribution of the investor relations function	271
14.2.3 Execution of the investor relations programme	272
14.2.4 Company meetings with analysts and fund managers	272
14.2.5 Telephone conversations with analysts and fund managers	273

	Page
14.2.6 Company feedback on sell-side analysts' reports	274
14.2.7 Mailing information to analysts and fund managers	275
14.2.8 Company close seasons	275
14.2.9 Opinions on company relationships with analysts and fund managers	275
14.2.10 The achievement of the descriptive statistics in answering the general research questions	276
14.3 Hypothesis testing of variables representing costs of and effort devoted to investor relations against the independent variables	277
14.3.1 Introduction	277
14.3.2 Achievements of the hypothesis testing	279
14.3.3 Discussion of the hypothesis testing	282
14.3.4 Possible reformulation of hypotheses	285
14.4 Advantages and disadvantages of the questionnaire survey technique	287
14.5 Possibilities for further development of a theory of investor relations	288
14.6 Further research	291
14.7 Concluding remarks	294
Glossary	296
List of references and bibliography	301

facing page

Tables

3-1	Organisations employing analysts	69
3-2	Investment research listings	70
3-3	Industrial sectors and analyst coverage	71
4-1	Duties of financial public relations function	91-2
4-2	Importance of information providers	98
4-3	Type of meeting preferred with companies	99
5-1	Services provided by financial PR agencies	114
8-1	Response to postal questionnaire	173
8-2	Analysis of reasons given for refusal	173
8-3	Details of population and respondents	174
8-4	Descriptive statistics for continuous independent variables	175-7
8-5	Spearman rank correlation for independent variables	178-9
8-6	Details of categorical independent variables	180-1
9-1	Percentage of directorate involved in the investor relations function	183
9-2	Number of working days in a year that directors devote to investor relations	184
9-3	Annual budget allocation for the investor relations function (excluding salary bill)	185
9-4	Cost incurred in past 12 months on external investor relations consultant	186
9-5	Significant results for data on organisation of investor relations with company specific variables	204
10-1	Summarised results of tests on importance of IR activities and the company specific independent continuous variables	223-4
10-2	Significant results for tests of data on assessment and execution of investor relations with company specific independent variables	225

		facing page
11-1	Attendance by company officials at meetings with analysts and fund managers	227
11-2	Importance of disclosure of information on past performance at meetings with analysts and fund managers	229
11-3	Importance of disclosure of information on future prospects at meetings with analysts and fund managers	230-31
11-4	Significant results for data on meetings and analyst following with company specific variables	234-5
12-1	Company officials answering telephone calls from analysts and fund managers.	238
12-2	Types of information sent to analysts and/or fund managers.	241
12-3	Significant results for data on analysts' reports and continuous independent variables	249
12-4	Significant results for data on size of mailing lists and continuous independent variables	250
13-1	Opinions on sell-side analysts	256
13-2	Opinions on buy-side analysts and fund managers	257
14-1	Significant results for hypothesis testing by univariate analysis of 20 dependent variables measuring investor relations cost or effort against the continuous independent variables	279
14-2	Significant results for hypothesis testing by multivariate analysis of 20 dependent variables measuring investor relations cost or effort against the continuous independent variables	280

	facing page
14-3 Summary of significant results for Kruskal-Wallis tests of continuous dependent variables and the categorical independent variables	281-2
14-4 Summary of significant results for Kruskal-Wallis tests of 7 ordinal dependent variables measuring investor relations cost or effort against the continuous independent variables	283
14-5 Significant results for Kruskal-Wallis tests of 7 ordinal dependent variables measuring investor relations cost or effort against the continuous independent variables	284-5
14-6 Summary of significant results for chi-square tests of 7 ordinal dependent variables and the categorical independent variables	286

facing page

Figures

6-1	Respondent's view on the extent to which visits are made by members of their organisation to companies in which it has invested (or intends to invest)	128
6-2	How often a company's financial performance was discussed with its management	129
6-3	Respondent's view on the reason for company visits	130
6-4	Frequency of provision of information by company management	131
6-5	Survey respondent's view on the degree of influence of the major sources of information about companies on their organisation's investment decisions	132
6-6	Influence of the major sources of information on organisations' investment decisions about companies analysed by type of employing organisation	133
6-7	Influence of various information sources	134
6-8	Major sources of particular items of information	135

Contents (volume 2)**Appendices**

	Page
A Text of postal questionnaire and accompanying letters	3
B Tables of results on the organisation of the investor relations function	41
C Tables of results on the assessment of and execution of the investor relations function	82
D Tables of results on company meetings with analysts and fund managers	125
E Tables of results on telephone conversations, company feedback on analysts' reports and mailing information	181
F Tables of results on close seasons and opinions on company relationship with analysts and fund managers	224
 Glossary	 260

Acknowledgement

The author wishes to thank the following organisations for their financial and practical support:

The University of Northumbria at Newcastle (formerly Newcastle upon Tyne Polytechnic)

The Committee of Heads of Accounting in Polytechnics (CHAP) of the British Accounting Association

The Chartered Accountants' Trust for Education and Research (CATER)

The Investor Relations Society

I also wish to thank my supervisor, Professor S.J. Gray, of the University of Glasgow and latterly of the University of Warwick, for his help and advice.

Author's declaration

Selected extracts from earlier drafts of the literature review chapters of this thesis have been presented as a working paper entitled 'Communications between companies and investment analysts' at the European Accounting Association 1992 conference and the Scottish Accounting Group of the British Accounting Association conference 1992. Selected extracts from chapter nine (Organisation of the Investor Relations Function: Results and Analysis) have been presented as a working paper entitled 'The organisation of the investor relations function by large UK quoted companies' at the European Accounting Association 1993 conference and the Northern Accounting Group of the British Accounting Association conference 1993.

Chapter 1 Introduction

1.1 The research problem

The purpose of this thesis is to investigate the informal communication of information by companies to analysts and fund managers. This activity can be carried out via the investor relations or financial public relations function within a company. It can be viewed as being part of the financial reporting process, the annual report and accounts are the main conduit of information but companies additionally use more informal investor relations procedures.

The area was seen as being worthy of investigation because it was evident from the academic literature and the financial press that analysts and fund managers were apparently receiving preferential treatment from companies. They were reportedly being invited to meetings with company management, talking to company officials on the telephone and obtaining guidance on their research reports and profits forecasts.

This apparent problem was by no means clear cut. It was not possible to say that preferential treatment for analysts and fund managers was necessarily a bad thing. At the time of commencement of the project in 1988 there were laws and regulations supposedly preventing companies from giving too much information away to analysts and fund managers in a preferential manner likely to be detrimental to private or other shareholders or potential investors. Companies and analysts maintained publicly that information passed via informal investor relations processes was not price sensitive inside information, but merely information to enable analysts and fund managers to arrive at a better understanding. It was argued that investor relations was a good thing because it enabled the City better to understand the companies in which it had, or intended to, invest. The problem was thus a grey area with the potential for varying interpretations and opinions and subsequent government action.

It was decided to treat company communication with analysts and fund managers as being essentially part of the financial reporting process.

The investor relations process is voluntary and as such lends itself to comparison with other studies of voluntary financial disclosures.

1.2 Setting the scene

The first task was to establish the legal and regulatory framework governing investor relations in general and communications with analysts and fund managers in particular. Chapter two considers first of all the statute law in the UK that was applicable to investor relations at the start of this study. The insider dealing legislation, first introduced in the Companies Act 1980 and subsequently incorporated in the Company Securities (Insider Dealing) Act 1985 was found to be of relevance and it was noted that several authors had speculated on the possible effect on investor relations arising from the introduction of the legislation. These comments are reviewed in chapter two and the overall conclusion reached is that a lack of clarity in the legal position means that investor relations is not prohibited but companies should exercise extreme caution, especially when dealing with favoured groups such as analysts and fund managers.

The Financial Services Act (1986) and the rules and regulations of the Securities and Investments Board (SIB) and the various self regulatory organisations (SROs) were then investigated for relevance to the area of company communications with analysts and fund managers. It was found that client protection was of paramount importance here and there was no explicit ruling on the conduct of analysts in their contact with companies.

The regulatory framework applicable to listed companies was considered. Stock exchange regulations were relevant but somewhat unclear. The interaction of the rules of the stock exchange listing agreement, the company news service regulations and the opinion of the Listed Companies Advisory Committee on the desirability of investor relations appeared to support a careful programme of communication with analysts and fund managers.

In 1989 the European Community issued a directive on insider dealing and this led to the Department of Trade and Industry issuing a discussion paper on the topic. In 1992 a Criminal Justice Bill (House of Commons, 1992) was introduced in parliament. This contained draft legislation on insider dealing intended to replace the provisions in the Company Securities (Insider Dealing) Act (Great Britain, 1985). It was greeted with some alarm in the City as it was felt that the proposals would severely restrict company communications with analysts and fund managers and that this would be detrimental to the functioning of the capital markets. After several redraftings the bill was enacted as the Criminal Justice Act (Great Britain, 1993). The new law does not seem likely to cause great disruption to existing established investor relations practices.

Chapter two continues with an outline of legislation and regulation in the United States. This is considered appropriate as the US capital market is the world leader and both insider dealing legislation and investor relations are more highly developed.

The relevant codes of conduct of professional organisations involved in investor relations were also studied. It was found that the Society of Investment Analysts (subsequently the Institute of Investment Management and Research) had given careful thought to the problem. The Investor Relations Society is the corresponding organisation for company officials and investor relations consultancy staff. The society's published principles make it clear that analysts should not be favoured in granting access to information. The Institute of Directors takes a similar line.

In the US the Financial Analysts Federation forbids the use of material non-public information in its standards of professional conduct.

The chapter deals with the recent issue by the London Stock Exchange (1993) of a consultative document on the dissemination of price sensitive information. This proposes certain changes to company conduct in dealing with analysts and fund managers. Comments are invited by 6th December 1993 and if the proposals as they stand are

incorporated into the stock exchange listing rules then there will be some changes in investor relations practice.

The overall conclusion arising from chapter two is that both law and regulation restrict the communication of information from companies to analysts and fund managers. Companies must be careful not to favour this group over other groups also entitled to receive information.

1.3 Financial analysts and fund managers

The importance of the analyst in the investor relations process is clear and it was therefore decided to carry out an investigation of the employment situation in the City of London. This is set out in chapter three. By examining a number of directories the approximate number of analysts and fund managers operating in the City was established. Also the number of stockbroking firms, the various types of financial institutions and financial public relations firms was discovered.

Chapter three also considers the role of professional organisations such as the Society of Investment Analysts and the US equivalent organisation.

Previous empirical research studying financial analysts is then reviewed to obtain further insight into the type of organisation employing analysts and the profiles of the analysts themselves.

Finally, the work of a financial analyst is discussed in outline along with the implications for analysts of the efficient markets hypothesis.

1.4 The investor relations function

Chapter four attempts to draw together the existing literature on investor relations. Investor relations is a relatively new discipline that has not yet achieved the status of a profession in its own right and much of the literature consisted of advice for managers on the importance of this new area. The material was usually written by investor relations practitioners and consisted of mainly practical suggestions as to how to carry out a company investor relations programme.

Particularly relevant to this project was that part of the literature which referred specifically to company communications with analysts. There seemed to be a trend for companies to by-pass brokers' analysts and speak more often with fund managers. Another theme that emerged was the awareness of the need to comply with legal and regulatory requirements.

In addition to the general literature identified, some empirical research was discovered. An early study in 1984 by Newman reports on a number of interviews with major companies. A more comprehensive survey was carried out in 1989 by an external consultancy firm and the results are reported in detail in chapter four.

The chapter also reviews a report of a London Stock Exchange Conference on investor relations, describes the Investor Relations Society and outlines the situation in the USA.

The overall conclusion is that investor relations can be viewed as a response to the increasing sophistication of the world's financial markets. The role of investor relations is to complement and improve existing information flows.

1.5 The financial public relations consultancy sector

As investor relations can be carried out both in-house and by external consultants it was necessary to investigate the literature on the financial public relations consultancy sector. Directories were consulted to establish the size and nature of the sector. Various sources were then reviewed to obtain an overview of the role of the financial public relations consultant.

The City and Financial Group of the Institute of Public Relations was found to have carried out a study on the conduct of financial communications by means of a working party recruited from the investor relations industry. They considered all the rules and regulations (summarised by this study in chapter 2) and decided not to add to the existing complex situation by promulgating more rules for their members. A committee and compendium of regulations was proposed instead.

1.6 Communications between companies and financial analysts

Chapter six turns to the accounting literature to review evidence collected in previous surveys of the work of investment analysts. Both Lee and Tweedie (1981) and Arnold and Moizer (1984) obtained substantial evidence that informal communications between companies and analysts do occur. They also measured the activity levels and the importance of company visits and established the nature of the discussions. Day (1986) also obtained additional evidence on company communications with analysts and Hirst (1988) measured hours of company contact by brokers as part of his study. The chapter reviews these findings in some detail because they are the first serious attempts to quantify and describe the area under study in this thesis. In fact it was after reading this work that the author decided to pursue the study of investor relations in more depth.

More recent research reviewed in the chapter includes an event study (Walmsley, Yadav & Rees, 1992) which concluded that price sensitive information was passed at company meetings with analysts.

Other relevant literature aimed at practising investment analysts was found to be of a descriptive and prescriptive nature. Articles in the accountancy and financial press yielded some additional information.

1.7 Formulation of research questions and hypotheses

Chapter seven identifies the research questions that emerged from the extensive review of the literature in chapters two to six. The major question that encapsulates the project is what is the cause, nature and effect of company communications with analysts. The general research questions are:

How much does it cost companies, both in terms of money and organisational effort, to maintain a programme of communications with analysts?

What methods of communication are used by individual companies in getting their message across?

What information is communicated by companies to analysts?

What are the opinions of companies regarding the costs and benefits of communicating with analysts?

Chapter seven discusses these questions in more detail and then formulates a number of specific hypotheses. By viewing company communications with analysts as being a type of voluntary financial reporting, several hypotheses that have been investigated in the past can be proposed.

Nine hypotheses are put forward and justified with reference to previous empirical research. The first one is that there may be an

association between company size and the cost, both in terms of money and organisational effort, of communications with analysts. The second is that there may be an association between the marketability of shares and the cost of company communications with analysts. Number three is that there may be an association between stock market risk measures and the cost of analyst communications. The fourth hypothesis is that the cost of analyst communications may be associated with profitability. The fifth is that gearing may be associated with the cost of analyst communications. Hypothesis number six proposes that recent takeover activity may be associated with the cost of analyst communications. Hypotheses seven and eight are that the level of insider shareholdings and substantial shareholdings may be associated with the cost of the analyst communications programme. Hypothesis nine proposes that the industrial classification of the company may be associated with the cost of analyst communications.

In formulating these hypotheses cost is used in its broadest terms, indicating not only cash expended but also staff time and organisational effort generally.

In addition to formulating the various hypotheses, chapter seven considers what data was obtained from the company respondents and other sources in order to carry out statistical tests.

1.8 Design and execution of the research project.

Chapter eight discusses the choice of methodology and explains why a postal questionnaire was selected as the research instrument for this project. The design of the questionnaire and the selection of the population is described. The population consisted of 547 companies which were, or had recently been, in the top 500 of UK quoted companies by market capitalisation.

The practical arrangements for distributing the questionnaire are described and details of the response rate are given. The overall response rate was 61.6% (337 companies).

The choice and source of variables for hypothesis testing is then set out. It was considered appropriate to use several measures to represent a variable in some cases, for example four measures of profitability and three of gearing were used. This ensured a more thorough analysis with less chance of a spurious result leading to rejection of a null hypothesis. In other cases, for example company size, only one value was used. This was either because one particular measure of the variable was considered most appropriate or because no other was conveniently available.

Having chosen the independent variables and described the method of extraction, the chapter then sets out descriptive statistics and details of transformations that were performed on some of the variables to achieve a more normal distribution.

The results are set out in five chapters covering different aspects of the investor relations process.

1.9 Organisation of the investor relations function

Chapter nine details the results obtained relating to the organisation of the investor relations function. It was considered important to ask questions about the organisational arrangements because much of the investor relations literature reviewed in chapters four and five dealt in a prescriptive way with how things might be or ought to be organised. In view of the inter-disciplinary nature of investor relations it was also considered to be of prime interest to discover whether the function was under the control of the company finance director, an accounting expert, or under the control of public relations or similar departments whose staff may have little training in financial reporting.

Company respondents were asked for detailed information about their company's arrangements. After presenting descriptive statistics on director involvement in investor relations, organising and staffing the investor relations function, the investor relations budget and

consultancy expenditure and investor relations policy, the chapter then sets out the results of the hypothesis testing.

Five continuous variables measuring effort devoted to investor relations were extracted from the questionnaire data and tested against the independent variables. Four ordinal measures were also identified and used for hypothesis testing. Univariate analysis was employed first and the results show that company size is the variable that appears to be most strongly and consistently associated with the investor relations effort. In an attempt to control for interaction effects and to assess the marginal explanatory power of different variables, multiple regression was carried out for four of the continuous dependent variables. This confirms that company size was the most important factor in determining the level of effort devoted to investor relations at the time of the survey.

1.10 Assessment of and execution of the investor relations programme

This chapter first presents descriptive results on the number of surveys of City opinion commissioned by the respondent companies. There are several consultancies offering City opinion surveys and if investor relations is taken seriously by companies such surveys are one method of measuring the success of the programme of communications with analysts and fund managers. It was felt that it would be interesting to find out which companies had used these services and how often.

The chapter then gives details of methods used by companies to communicate with analysts and fund managers and the relative importance of these methods. The main methods specified in the questionnaire were general meetings, special or individual meetings, telephone conversations, feedback on analysts' reports and mailing of information. It was felt that it was important to establish the facts here since no previous empirical evidence existed on how many companies engage in these activities. In fact the vast majority of respondents stated that they carried out all five activities with

individual meetings and telephone conversations being viewed as most important.

Four continuous measures of effort devoted to investor relations were obtained from the questionnaire data and used for hypothesis testing. These were the number of surveys conducted recently, less recently and in total and an index of investor relations activity. Additionally there was one categorical variable, whether or not the company had commissioned any surveys. Univariate testing was carried out and it was found that company size and number of overseas listings were significantly positively associated with four out of five of the dependent variables. Multivariate analysis gave conflicting results, size was not important although the number of overseas listings remained significant.

The rank importances of the various investor relations activities were also investigated to see if there was any association between these and the independent variables.

1.11 Company meetings with analysts and fund managers

Chapter eleven presents the results of the questionnaire survey relating to company meetings with analysts and fund managers. It was considered to be important to find out exactly how many meetings are held by companies and how many analysts and fund managers from various organisations are invited and attend. There was no extant empirical evidence available on this point. Additionally there was little previous evidence on the exact content of information passed at meetings. This made further investigation a worthwhile and interesting objective.

Descriptive data covering the organisation of meetings, the number of meetings held and attendance levels, and the actual information discussed is set out. Twenty seven relevant items were listed for respondents who were able to state whether they were discussed or not

and the relative importance of the topics. This data gave a good overall impression of the information content of meetings.

Hypothesis testing was then carried out using eight continuous measures of effort devoted to investor relations extracted from the meetings data. There were many significant results here. In particular, large companies with more marketable shares (in terms of trading frequency and overseas listings) held more meetings and had a larger analyst following. The subsequent multivariate analysis using regression confirmed the importance of company size and the number of overseas listings.

1.12 Telephone conversations, company feedback and mailing of information

Chapter twelve discusses the results relating to company telephone conversations with analysts and fund managers, feedback offered on analysts' research reports and the mailing of information. Both telephone conversations and analyst feedback are particularly sensitive areas that may be subject to accusations of unfairness from observers and regulators. It was most interesting to investigate these activities in more detail since there was no comprehensive empirical evidence describing the situation among UK companies.

Hypothesis testing was carried out by extracting five continuous measures of effort devoted to investor relations from the questionnaire data. These included the amount of analysis produced on a company and the size of mailing lists. No information on telephone calls was obtained in a form suitable for hypothesis testing.

Larger companies with more marketable shares had larger mailing lists and were more heavily researched. The subsequent multivariate testing was broadly in agreement.

1.13 Company close seasons and opinions on relationships with analysts and fund managers

The final results chapter sets out the data obtained on close seasons when companies prohibit or restrict communications with analysts and fund managers. There are no specific rules governing close seasons and there was no existing comprehensive evidence regarding UK company practices. It was therefore worth investigating close seasons to obtain a detailed understanding of the situation.

The chapter also presents the results of the opinions section of the questionnaire which allowed respondents to express their opinion on analysts and the value of the investor relations function. There was some evidence in the literature that companies were unsatisfied with research carried out by analysts. It was interesting to discover that respondents to this survey seemed broadly satisfied with the work of analysts. The overall results regarding opinions on the various investor relations activities were that companies seemed to consider investor relations to be valuable. A desire to retain the status quo as reflected in the responses seems to indicate that the investor relations industry has grown up to satisfy a demand for information in the capital market place and has succeeded in satisfying that demand.

An attempt was made to explain the observed differences in responses by making use of the explanatory variables used previously in testing the specific hypotheses regarding investor relations cost or effort. There were three categorical variables relating to the existence of close seasons and two continuous variables measuring the length of close seasons.

The nineteen opinions on the quality of research and the value of investor relations were also investigated to see if there was any association between them and the independent variables.

1.14 Conclusions

The final chapter of the thesis discusses the achievements of the project both in terms of the answers provided to the general research questions and the success of the explanatory model based on the specific hypotheses. The limitations of the project are discussed and a number of suggestions are made for further research and investigation.

Chapter 2 The Legal and Regulatory Framework Governing Communications between Listed Companies and Investment Analysts

2.1 Introduction

The aim of this chapter is to outline the legal and regulatory framework that applies to the communication of information by listed companies to investment analysts.

Companies are required to disclose information in written form to the public at large. The publication of the annual report is required by statute law and certain additional information is required by the stock exchange. Apart from the annual report other written reports such as interim and quarterly reports, documents issued in takeover situations, announcements to the stock exchange, company brochures, employee reports and press releases provide information for the investment analyst. However, evidence that will be referred to in this study indicates that analysts rely on personal contacts with companies to supplement the information they receive through normal channels. They may attend company presentations, often known as brokers' lunches, or visit company premises, or speak on the telephone to company representatives in their quest for information on the companies they are analysing. These informal communications are the subject of this study and a consideration of the law and regulations surrounding these activities is therefore relevant.

2.2 Statute Law

Statute law intended to curb the practice of insider dealing is of relevance in this context.

The Companies Act 1980 (Great Britain, 1980) sections 68 to 73 introduced prohibitions on insider dealing. Amendments to these provisions were introduced in the Companies Act 1981 (Great Britain, 1981) in relation to section 71 of the 1980 Act. The basic aim of section 71 and its amendment is to exclude things done in connection

with international bonds from prohibition on insider dealing. The relevant sections of the Companies Acts 1980 and 1981 were subsequently incorporated in the Company Securities (Insider Dealing) Act 1985 (Great Britain, 1985).

Insider dealing occurs when directors or others with privileged access to 'inside information' abuse their position by dealing in their company's securities before this information becomes public knowledge.

Investment analysts come within the categories of individuals affected by the insider dealing rules. 'An individual connected with a company' 'commits an offence' if he 'possesses unpublished price-sensitive' information and 'engages in dealing in securities'. The terms in inverted commas are defined in detail in the Act.

One example of an individual connected with a company is a person occupying a position that involves a professional or business relationship between the company and himself or his employer. In such circumstances he will be connected with the company if he is likely to have access to unpublished price sensitive information and it is reasonable to expect that someone in his position would not disclose that information except to enable him to do his job properly. Arden and Eccles (1980, p.89) make the following comment

Some examples of individuals who will be in appropriate positions are obvious. They include very senior employees, the company's accountants, the company's solicitors, and merchant bankers acting for the company. Rather less obviously, however, trade union officials may, it seems, by virtue of their position, have access to unpublished price-sensitive information and thus be connected with the company for the purposes of the provisions of the Act that relate to insider dealing. Another example is an insurance broker who visits the company and is given a management forecast that reveals price-sensitive information in connection with a proposal to effect cover against interruption of business profits.

Unpublished price sensitive information has three basic qualities. It must concern specific matters that relate to or concern the company

and information of a general nature is excluded. It must not be known to the persons who are accustomed to, or are likely to, deal in the securities and it must be such that, if it were generally known, it would be likely materially to affect the price of the securities. The question that now arises is whether information given to investment analysts by companies is likely to come into the category of price sensitive information.

Arden and Eccles (1980, p.90) give two examples, knowledge of an imminent take-over bid and knowledge of an oil strike by an oil company. They make the following comment (p.99):

Some concern was expressed that the new provisions might cause difficulties to stock market analysts. It was considered, however, that the kind of information given to analysts should not include price-sensitive information of the sort concerned here and that analysts would accordingly fall outside the provisions of the section (68 CA 1980).

If companies respond to analysts' requests for information unpublished price sensitive information, as defined in the act, should be excluded. Boyle, Birds and Penn (1987, p.239) criticise the definition. They state that it is not entirely clear whether the requirement of specificity relates to the item of information itself or its relevance in regard to a particular corporate issuer. The requirement that the information must not be known by those persons who would be accustomed or likely to deal in shares requires clarification. They make the following comment :

It is not enough for an insider to prove that the information was available on request, if in fact it was not actually known. Of course, it might be a fair assumption that any information which was available to investors and professional advisers on request would be known by such. It is not sufficient for the insider to claim that the information was known by some actual or potential investors or professional advisers if it was not generally known to this class of persons.

Obviously it would be possible for an investment analyst to commit an offence if he received unpublished price sensitive information from the company and proceeded to deal in securities. If he passed the information on to one of his clients and the client dealt using the information the client could also be committing an offence. Secondary insider dealing occurs when a 'tippee' obtains information from a primary insider.

Gibbs and Seward (Westwick, 1983, p.141) make the following comment regarding meetings between analysts and senior company management :

It should be noted, however, that both sides are careful not to request (or to divulge) information which is not, or could not be made, generally available to shareholders. The Companies Act 1980 has made it a criminal offence to deal, or advise someone else to deal, on the basis of unpublished price-sensitive information.

Lee and Tweedie (1981, p.115) make the following comment on company visits by investment analysts :

The Companies Act 1980 may well curb the practice of seeking information on the future prospects of a company during visits to companies - information which obviously can be of a price-sensitive nature. The Act prohibits an insider knowingly in possession of unpublished price-sensitive information from dealing or consulting another person to deal in the company's securities or even communicating that information to another person if he has reasonable cause to believe that the person would make use of that information.

In their final recommendations the above authors state the following (p.144):

Company visits by institutional investors and stockbrokers are obviously of importance to them (especially the latter) in the process of investment decision making. (This is obviously a sensitive matter because of the issue of 'insider' information and we were not unduly surprised at the relatively muted enthusiasm

for this source of information apparent in some respondents' answers). We would, therefore, recommend that the investment community investigate this area with a view to establishing, more clearly than was possible in this study, the nature and purpose of such visits. In particular, it would appear to us to be an area which deserves some official attention, especially in view of the provisions of the Companies Act 1980, with a view to providing institutional investors and stockbrokers with accepted guide-lines for such visits - that is, a recognised and agreed code of practice to prevent certain financial experts benefiting from reserved knowledge at the expense of other investors.

In conclusion it can be said that the statute law designed to prevent insider dealing is relevant to the situation when a company responds to the enquiries of the investment analyst. The variety of comments on this topic indicate a certain lack of clarity in the legal position. Companies and investment analysts therefore need to exercise extreme caution in this area of concern.

The Financial Services Act 1986 (Great Britain, 1986) established a new framework for investor protection. The Securities and Investments Board (SIB) was established as the agency exercising powers under the Act. The SIB has constructed a detailed rule book putting the principles of investor protection into practice. The SIB can authorise investment businesses directly or it can recognise Self-Regulating Organisations (SROs). The SRO rules can be identical to those of the SIB but as long as the rules provide equivalent protection they do not have to be exactly the same.

The Securities and Investments Board has published conduct of business rules (1987 and 1990) which deal inter alia with research recommendations. Rule 5.20 seeks to ensure that firms which publish research recommendations to their customers do not take unfair advantage by dealing before their customers have the information. Rule 5.21 prohibits dealing by a firm where an officer or employee of a firm is prohibited by the Company Securities (Insider Dealing) Act 1985 from effecting a transaction. It also states that a firm shall use its best endeavours to ensure that no officer or employee of the

firm effects a transaction on behalf of the firm with or for any person if that officer or employee has reason to believe that the effecting of that transaction by the person is prohibited by the Company Securities (Insider Dealing) Act 1985.

Rules 8.01 to 8.10 deal with published recommendations such as journals, tip-sheets, broker's circulars and broadcasts. In particular, rule 8.05 states that no matter shall be included in a relevant publication in relation to any recommendation included in it which states or implies that the recommendation is based on the evidence of research or analysis unless such research or analysis has been carried out and the firm is in possession of that evidence and it is adequate to support the recommendation.

Rule 16.09 requires firms to make a record of the recommendations included in any publication subject to rules 8.01 to 8.10. It must also make a record of the statements accompanying the recommendations. If the recommendations are stated to be based on research and analysis the evidence must also be recorded. All the records shall be kept together at a branch or office of the firm designated for the purpose. A record must be kept for at least one year after the issue of the publication.

To summarise the above rules the SIB recognises that fact that firms may obtain valuable information as a result of carrying out research and analysis. The conduct of business rules seek to ensure the protection of the clients, they do not seek to regulate the means by which research is carried out. They have nothing to say regarding the conduct of financial analysts' private contacts with companies.

The self-regulating organisations (SROs) have developed their own conduct of business rules. Accordingly the Association of Futures Brokers and Dealers (AFBD), the Financial Intermediaries, Managers and Brokers Regulatory Association (FIMBRA), the Investment Management Regulatory Organisation (IMRO), the Life Assurance and Unit Trust Regulatory Organisation (LAUTRO) and the Securities Association (TSA) have set out rules relating to research recommendations similar in content to those of the SIB. They do not have any conduct of business

rules relating specifically to the conduct of members contacting companies for information. (The AFBD and TSA have now merged to form the Securities and Futures Authority (SFA).)

According to Moir (1989) reporting in the Observer, the Bank of England is showing increasing concern that confidential briefings by quoted companies have effectively created two classes of investor: the privileged and the unprivileged. Moir notes that institutional investors obtain news ahead of the market when their analysts or stockbrokers are privately briefed. Although the legal requirements of the Company Securities (Insider Dealing) Act 1985 should prevent abuse of inside information by 'front running', that is using the information to deal ahead of the firm's clients, worries still persist. In addition to the legislation, the Stock Exchange's Listed Companies Advisory Committee issued a special 'Guide for Directors on Investor Relations' in November 1988 (Listed Companies Advisory Committee, 1988).

Moir states that there is no doubt that private investors hear company news well after the professionals. The Securities Association forbids firms to deal ahead of their clients (Rule 380.01 TSA Rule Book (1987), subsequently rule 5-37 SFA Rule Book (1992)) but two important exceptions undermine this rule. Firms may front run if they have formally told their clients in advance that they may do so. Also if the firm reasonably believes that, after a research recommendation is published, it will be difficult for it to execute the resulting orders from customers without causing the price to move adversely against the customers by a material amount, then it may deal in the same way as the research recommendation before it is published. The extent of the dealing should be what the firm reasonably believes will correspond to the likely orders from customers and the dealing should not cause the price of the investment to move adversely against the customers by a material amount. Moir comments that if analysts switch recommendations after a private briefing, leaving the market makers short of stock, a firm may go on a buying spree so long as it is discreetly handled and does not move the market price materially.

Moir presents the views of John Kerridge, chairman of Fisons and for three years a founding director of the Securities and Investments Board. Kerridge believes that strict rules should apply to the analysts who receive information just as Company Law and the Stock Exchange Listing Agreement control what information companies provide and how they provide it. The initiative must come from the Stock Exchange and the Securities Association since it is their members who struggle to obtain exclusive information. Kerridge believes that private investors need to feel confident of receiving equivalent treatment to fund managers.

Colin Condren the director of compliance for Barclays de Zoete Wedd is quoted as saying:

The new regime has helped by safeguarding clients from being ripped off and levelling the playing field between fund managers and unsophisticated private investors. But, as for news that is in the market place it is a fact of life that if you are big, and close to the market, you will hear things first. What Aunt Agatha needs is a unit trust with a fund manager who can get in while the news is on the screen and the juicy lines of stock are around.

Condren believes the answer lies in market forces.

We are there to send our clients first class information which has not been worn out by the actions of our market-makers (or favoured institutions). Otherwise our clients will go down the road.

In conclusion it can be said that the Financial Services Act 1985 does not appear to have produced regulation regarding the way in which financial analysts approach companies for information. What it has done is regulate the way the results of research and analysis are used.

This section has summarised the legal situation at the time of starting the project. Subsequent to the data gathering carried out in 1991 (see chapter 8) there was a change in the insider dealing legislation. The Company Securities (Insider Dealing) Act 1985 is

soon to be repealed and replaced by certain provisions contained in the Criminal Justice Act 1993. This will be discussed later in the chapter (see 2.5)

2.3 Stock exchange regulation

The London Stock Exchange of the United Kingdom and the Republic of Ireland Limited operates markets in UK government securities, UK and foreign equities and traded options. The Council of the Stock Exchange is the competent authority to issue rules governing the admission of securities to listing, the contents of listing particulars and the continuing obligations of listed companies.

In the case of meetings with investment analysts, telephone enquiries from analysts and company visits there are no specific regulations. The following information was obtained from the Information Officer (Corporate Marketing) by letter in 1989:

The Stock Exchange does not have any information regarding meetings that may take place between listed companies and members of the financial community

There are no codes of practice dictated by the Stock Exchange on how listed companies should respond to telephone calls from investment analysts. Obviously, as part of their continuing obligations listed companies must report any price sensitive information to the Exchange first, and they cannot divulge information to investment analysts if the information is likely to have an effect on share prices. Individual companies might have their own guide-lines....

The basic principle is that all user groups have equal status in terms of the listing agreement with the Stock Exchange and that identical information should be available and given simultaneously to all users.

The Stock Exchange's 'Admission of Securities to Listing' (International Stock Exchange, 1989) provides that companies must notify the Quotations Department of: 'any information necessary to enable the holders of the company's listed securities and the public to appraise the position of the company and to avoid the establishment of a false market in its listed securities' (Section 5, Chapter 2, para.1). This requirement operates according to the 'guiding principle' that: 'information which is expected to be price sensitive should be released immediately it is the subject of a decision. Until that point is reached it is imperative that the strictest security within the issuer is observed' (Section 5, Chapter 1). Expanding on this guiding principle the Stock Exchange specifies that information should not be: 'released in such a way that Stock Exchange transactions may be entered into at prices which do not reflect the latest available information' nor 'divulged outside the company and its advisers in such a way as to place in a privileged dealing position any person or class or category of persons' (Section 5, Chapter 2, Note 1.1)

The Stock Exchange listing agreement makes specific provision for the disclosure of information relating to major new developments and the City Code on Takeovers and Mergers (Panel on Takeovers and Mergers, 1985) sets out additional disclosure rules to apply during takeover situations (see O'Brien, 1992). There are detailed rules relating to the timing of disclosures and the practical matter of how the information is to be disseminated. The company announcements office of the London Stock Exchange receives the information and releases it via the company news service (CNS). The service is available to subscribers country-wide and selected points of information are available on the edited news service of TOPIC.

Hilton (1989) reported that only 40% of announcements on the company news service appeared on the edit service of TOPIC. Also the time taken from receipt of information to publication on the screen is frequently so long that it proves a severe embarrassment to companies who have a busy schedule of analyst briefings and press conferences lined up to coincide with publication. The London Stock Exchange subsequently introduced a regulatory news service (RNS) in December

1990. Information is processed by the company announcements office and released for publication through TOPIC and any news agencies willing to pay for the service. Information distribution is therefore wider, quicker and more detailed than in the past.

The Listed Companies Advisory Committee is an independent body set up at the initiative of the London Stock Exchange. It issued a booklet entitled 'Investor Relations A guide for directors' in November 1988 (Listed Companies Advisory Committee, 1988). These guide-lines were prepared at the suggestion of the Bank of England and include a section relating to communications with analysts and fund managers. The text is here reproduced in full:

It is vital that no group of investors or market commentators be given privileged access to price-sensitive information. However, it can often be helpful to provide background information to brokers' analysts who play a key role in analysing published information given to the market, and to major investors or potential investors in the company. This might include both a restatement and elaboration of information already released and material on the company's products and processes which, while not price-sensitive, assists analysts or fund managers in their understanding of the nature of a company's business.

It is important that such contacts are seen to be part of a steady flow of communication, otherwise there is a danger of provoking market speculation that price-sensitive information is to be or has been communicated. If a company is about to change its policy with regard to such communications it should take all practicable steps to inform the market.

The announcement of full and half-yearly results provides regular opportunities to keep the investment community up to date with details of performance and key developments. Companies may wish to give managers, analysts and the media the opportunity to discuss these results. Care must be taken, however, to ensure that general release to the market has taken place before making price-sensitive information available. In advance of such a

meeting, the company may find it helpful to prepare a statement including answers to anticipated questions, and to pass a copy to the Exchange's Company Announcements Office for co-ordinated release.

Responsibility and discretion must be management's watchwords.

We believe it to be of primary importance that companies avoid being provoked into providing material information by speculative comment or deductions put forward by analysts or the media. If the issues concerned are based on outside assessments, then we believe that the company should make it absolutely clear that it cannot comment. It is the company's duty to keep the market informed, not to correct mistaken opinion.

Comments should be limited to matters of fact. If the market is misinformed, correction should be made publicly, after the company has consulted its financial advisers.

The guide-lines quoted above make it quite clear that directors should be very careful in their dealings with analysts. Failure to comply with the guide-lines could be interpreted as a breach of the London Stock Exchange's listing regulations.

This section has dealt with stock exchange regulation at the start of and during the execution of the research project. The situation is currently under review as, subsequent to the publication of the Criminal Justice Act (Great Britain, 1993), the Exchange has published a consultative document on the dissemination of price sensitive information (London Stock Exchange, 1993). These developments are discussed in sections 2.5 and 2.8.

2.4 European Community legislation

The Council of the European Communities issued on 13th November 1989 a Directive co-ordinating regulations on insider dealing (European

Community, 1989). The Directive is a minimum standards measure and implementation will require some changes to the existing British law. The Department of Trade and Industry issued a commentary entitled 'The Law on Insider Dealing. A consultative document' (Department of Trade and Industry, 1989). The government was considering at the time whether other changes to the law, besides those required by the Directive, would improve it. Although the Directive does not refer specifically to company communications with analysts, the Department of Trade and Industry (1989, p.5) made the following comment:

The Government attaches considerable importance to good communications between companies and the City, and believes that the practice of explaining the details of company operations to analysts and fund managers has an important part to play in this.

Nevertheless it is equally important to ensure that price sensitive information is not selectively disclosed. Disclosure of price sensitive information in confidence poses particular problems for all concerned: the analyst to whom such information has been disclosed could be in breach of the existing criminal law if he were to use the information prior to publication. Furthermore it is possible that, depending on the circumstances of the disclosure, the individual making the disclosure may himself be committing a criminal offence. Therefore if, on reviewing what has been said at a meeting, company representatives believe that they may have unwittingly revealed some unpublished price sensitive information, they should immediately disclose that information the Stock Exchange, for publication to the whole market.

It appears therefore, that the issue of the European Community directive stimulated the British government into thinking again about the scope of its own insider dealing legislation and to turn its attention directly to the problem of relations between companies and analysts.

2.5 The Criminal Justice Bill 1992 and the Criminal Justice Act 1993.

The empirical work for this study was carried out in 1991 and the results must be viewed in the context of the regulation and legislation in place at that time. It should be noted, however, that the Criminal Justice Bill (House of Lords and House of Commons 1992) proposed a tightening up of the existing insider dealing legislation. The bill was introduced in parliament in October 1992 partly in order to implement the above mentioned European Community Directive on insider dealing (1989). The draft legislation met with immediate opposition.

B Fidler, finance director of Christian Salvesen plc (Accountancy Age, 1992), claimed that the Criminal Justice Bill would lead to a 'considerably less informed marketplace' and stressed the need for companies to build strong long term relationships with analysts. Tim Smith MP (1992) suggested that the widening of the definition of insider information proposed in the bill could prevent institutional investors from dealing and stop analysts' meetings. He noted a particular problem in that the wider definition in the draft legislation included information affecting the company's business prospects. Hilton (1993) considered that the new rules would make it impossible for firms to raise new capital on the stock exchange although he reported that the Treasury considered that the bill would not render the legitimate work of analysts illegal or erect barriers to the normal conduct of investment business.

The new provisions were considered by a House of Commons standing committee in the summer of 1993. Prior to this stage, Smith (1993) reported that the Home Secretary had explained in debate that nothing in the bill would prevent the sort of contact between companies and investors that legitimately takes place today. He also noted that since 1980, when insider dealing became a criminal offence there have been 28 prosecutions and 17 convictions. Smith reported that the CBI was concerned that companies would find it impossible to continue discussions with analysts and fund managers. In conclusion, he considered that further clarification of the bill might result instead

in obfuscation. At the same time Rodgers (1993) made the following comment:

The clauses have been redrafted by the Treasury and are an improvement on the first draft. But they still display a total lack of clarity where they deal with market makers and the use of "specific or precise" as part of the definition of what constitutes inside information remains so vague that only the courts can give meaning to it

On examining the eventual legislation in the Criminal Justice Act (Great Britain, 1993) and comparing it with the Company Securities (Insider Dealing) Act (Great Britain, 1985) it appears that little progress has been made in governing more strictly the relationship between analysts, fund managers and companies. There is no specific mention of analyst meetings, fund manager meetings, telephone calls or the offering of feedback on analysts reports. This indicates that the government has not thought it desirable to forbid specifically these well established investor relations procedures. The definition of 'inside information' in the new act (section 56) is not greatly different from the definition of 'unpublished price sensitive information' in the old act (section 10). A person 'connected with a company' defined in section 9 of the 1985 Act is broadly similar to an 'insider' defined in section 57 of the 1993 Act.

In support of the view that the new legislation has not greatly changed or clarified the situation, it was reported on the Money Programme (BBC2, 1993) that the government has let slip an opportunity to clamp down on insider dealing, the new legislation will have little effect particularly as the system of enforcement is the same as before. The London Stock Exchange has recently stepped into the debate with a consultative document on the dissemination of price sensitive information (London Stock Exchange, 1993). This will be discussed in section 2.8.

2.6 United States legislation and regulation

Jack Lavery, a senior vice-president with Merrill Lynch provided the following summary of the situation in the United States in a speech at the International Stock Exchange Conference for Industry in October 1988 (International Stock Exchange, 1989):

The release of information by a company to the investing community is a very structured and strictly controlled process. In the United States, strict rules, enforced by the Securities and Exchange Commission (SEC) control the type of information and the manner in which it is released. Principles of fairness underlie the regulatory philosophy that has been responsible for the rules concerning disclosure of information.

There are several broad classes of regulations which concern the type of information disclosed and the way in which it is disseminated. Policies related to material standards regulate the type of information that must be disclosed either through public findings with the SEC or through press releases to the news media. Information that would have 'material' effect on the company or its stock price must be disclosed in this fashion. Policies related to 'differential disclosure' ensure that company officials do not release information to one analyst that they are not willing to make generally available to the public. Companies are required to disclose their financial results through '10Ks' and '10Qs' and other publicly available documents that are useful to the analyst in reviewing the company.

There are also strict rules concerning analysts' communication with investors. Before an analyst's report can be disseminated publicly, it must be reviewed by a brokerage firm's supervisory officer to make sure that it conforms to regulatory and internal standards.

Despite the strict regulatory environment imposed by the Securities and Exchange Commission a conflict does exist between companies' desires to communicate with the financial community and insider

trading legislation. Suter (1989, p.283) provides a quotation from a former chairman of the SEC as follows:

The process of private meetings and discussions between corporate officers and analysts is substantially risk free as long as it consists of providing links in a chain of analytical information, and public disclosure is made of anything of sharp and immediate significance which is communicated.

Suter comments that it is doubtful whether many investment analysts could in practice forego seeking to elicit inside information before its public disclosure and it may also be that some would regard meetings between company officers and investment groups as a waste of time if they merely elicit publicly available information.

A case of relevance to analysts and insider dealing occurred at the time of the Equity Funding Corporation scandal. Suter (1989, p.44) reports that Dirks, an investment adviser, took advantage of inside information obtained from a former employee. He investigated the company, tried to inform the SEC and told his clients who sold their shares. Subsequently a massive fraud was exposed and trading of shares was suspended and the company filed a petition for reorganisation. The SEC censured Dirks and this was upheld by the Court of Appeal. The Supreme Court decided that the SEC had been wrong. Gillis (1988, p.1788) provides the following quotation from the opinion illustrating the Court's concern with the impact of the existing rules on analysts:

Imposing a duty to disclose or abstain solely because a person knowingly receives material non-public information from an insider and trades on it could have an inhibiting influence on the role of market analysts, which the SEC itself recognizes is necessary to the preservation of a healthy market. It is commonplace for analysts to 'ferret out and analyse information,' and this is often done by meeting with and questioning corporate officers and others who are insiders. And information that the analysts obtain normally may be the basis for judgements as to the market worth of a corporation's securities. The analyst's judgement in this

respect is made available in market letters or otherwise to clients of the firm. It is the nature of this type of information, and indeed of the markets themselves, that such information cannot be made simultaneously available to all of the corporation's stockholders or the public generally.

Gillis states that the Court, in several footnotes, elaborated on the importance of the analyst's function and the need for clarity regarding permissible conduct.

The SEC expressly recognized that the value to the entire market of (analysts') efforts cannot be gainsaid; market efficiency in pricing is significantly enhanced by (their) initiatives to ferret out and analyze information, and thus the analyst's work redounds to the benefit of all investors.

The SEC asserts that analysts remain free to obtain from management corporate information for purposes of filling in the 'interstices in analysis.' But this rule is inherently imprecise, and imprecision prevents parties from ordering their actions in accord with legal requirements. Unless the parties have some guidance as to where the line is between permissible and impermissible disclosures and uses, neither corporate insiders nor analysts can be sure when the line is crossed. The SEC's rule, if applicable without regard to any breach by an insider could have serious ramifications on reporting by analysts of investment views.

Despite the unusualness of Dirks' find, the central role that he played in uncovering the fraud at Equity Funding, and that analysts in general can play in revealing information that corporations may have reason to withhold from the public, is an important one. Dirk's careful investigation brought to light a massive fraud at the corporation. And until the Equity Funding fraud was exposed, the information in the trading market was grossly inaccurate. But for Dirks' efforts, the fraud might well have gone undetected longer.

Although the Dirks case is somewhat unusual the comments of the Supreme Court indicate the existence of conflict and uncertainty in the United States similar to the problem as experienced in the United Kingdom.

2.7 Professional organisations and codes of conduct.

The aim of the following section is to identify relevant guide-lines and regulations promulgated by professional bodies concerned with investment analysis.

2.7.1 The Society of Investment Analysts

The Society of Investment Analysts has issued 'Guide-lines to members on insider dealing' (1981). References to statute in these guide-lines are to the provisions against insider dealing as first enacted in the Companies Act 1980.

Guideline 1

The enactment of the Companies Act 1980 does not and should not prevent communication between investors or analysts and companies.

Interpretation:

It is proper for a company officer to address a group of financial analysts, to appear at a private luncheon or dinner meeting, to appear before a group of analysts who are industry specialists or meet an individual investor or analyst and to speak with him on the telephone. Meetings between company officers and investment groups improve the general level of information and thus reduce the possibilities of Insider Dealing. The information disclosed in such meetings should not be price-sensitive information.

Company officers should be encouraged to make a general release of the content of remarks made at such meetings.

The last comment is interesting since it does not recommend the form of the general release. A press release might be deemed sufficient but the individual shareholder might not have time to comb through all the financial press on a daily basis. Indeed not all press releases are likely to be incorporated in editorial so perhaps it would be better for the company concerned to pay for an announcement. Shareholders might well prefer to be circulated on an individual basis. As for telephone conversations these could also be classified as meetings and their content subject to similar publicity requirements.

Guideline II

Price-sensitive information only falls within the scope of the Act if it is specific unpublished information, which if generally known, would materially affect the price of the security.

Interpretation:

For the information to fall within Section 73 (2) (a), it must relate to specific matters and not be simply of a general nature. Specific matters may be taken to include, by way of example, those items of company information which the Stock Exchange listing agreement requires to be notified to the Quotations Department or which are treated as price-sensitive in the Model Code for securities Transactions. Into this category fall such matters as:

- Decisions to pay or to pass dividends or interest payments
- Preliminary announcement of profits, whether annual, half yearly or for any other period
- Proposed changes in capital structure
- Acquisitions or disposals above a certain size
- Changes in directorate

It is perhaps indicative that a Class III acquisition, that is

where assets and profits acquired amount to less than 5% of those of the acquirer, while clearly specific is not considered by the Stock Exchange to be notifiable.

The same distinction exists in the USA and there information which would normally be regarded of a general nature has been defined to include:

- Industry circumstances: volume, pricing costs
- Competitive patterns
- Product description, diversification
- Pricing trends
- Sales trends
- Mix of product sales between lease and outright sale
- Cost trends
- Break even analysis
- Accounting policies; depreciation, stocks, research and development
- Analysis of effective tax rate
- Financial position; capital expenditure, capital requirements
- Company organisation, structure and changes
- Management progression
- Financial policy
- Merger and acquisitions policy

It should be stressed that this list is purely illustrative and does not represent the outcome of case law in the United Kingdom.

The above guideline attempts to distinguish between specific and general information. Companies disclosing general information to investment analysts should not fall foul of the law. However, the dividing line is not clear and subsequent case law may offer further guidance.

Guideline III

The analyst who employs the mosaic method, collecting and evaluating information, some part of which may be non-public but no individual element of which contravenes Section 73(2), is not acting illegally, even if the conclusion which he reaches had it been communicated as information by a 68(i) individual would have fallen within Section 73(2).

Interpretation:

If an analyst is able to construct a model from a number of pieces of non-material information and the conclusion which he reaches, having fitted the pieces together himself, amounts to price-sensitive information, then he has not contravened the law.

This guideline appears to be fair in that a hard working analyst who gleans non-public information from companies and fits these pieces together commits no offence. However, an individual shareholder might argue that he too is entitled to receive these pieces of information so he can build his own model and make decisions.

Guideline IV:

An individual is defined by Section 73(1) as being connected with a company and therefore a 68(1) individual not only if he is a director but also if he occupies a position either within the company or through a professional relationship which could be expected to give him access to unpublished price-sensitive information.

Interpretation:

Should an investor decide to involve himself directly in management decisions of a company, for example to help in the solution of a particular problem, then he will have placed himself in a professional relationship and will therefore be connected personally. He will thus be prohibited from dealing in the shares

for a period of six months following the ending of his special relationship.

This guideline provides an example of a professional relationship that may arise when an investment analyst becomes involved in management decisions. However, it could be argued that a professional relationship exists at all times between the analyst and the company he is following, not just in the special circumstances outlined above.

Guideline V:

An analyst who finds himself in possession of price sensitive information as defined should recognise that the transmission both to him and by him of that information may in itself constitute a contravention of the Act by the transmitting person in each case.

Interpretation:

If information falling within the Act is communicated to anyone who might be expected to deal on it or persuade someone else to deal, then the communication itself is illegal. This provision is much stricter than in the US where liability only exists when dealing takes place. There is thus a critical distinction to be made between the principle of Guideline III and that of Guideline V. Analysts should recognise that they may be better judges of the price-sensitivity of information than their informants.

This guideline urges restraint on analysts who receive price sensitive information from a company. If a company fails to comply with the law this does not mean that the analyst can take advantage of the situation with impunity.

Guideline VI:

Information which does not fall within Section 73(2) when received cannot do so retrospectively.

Interpretation:

This guideline does not derive from the wording of the Act but is based on Current US practice and general legal principle.

Information which becomes price-sensitive after a period although it was not so when originally received, cannot lay the analyst open to retroactive penalty in respect of actions he has taken while the information was not price-sensitive. If it has not been published and becomes price-sensitive, then he becomes bound for the future by the provisions of the Act.

Guideline VII:

Information falling within Section 73(2) is removed from that category immediately it has appeared in any generally available published form.

Interpretation:

This guideline seeks to put into the context of the analytical profession the wording of the Act which defines "unpublished" as "not generally known to those persons likely to deal in those securities". The Guideline is based on the belief that information published in, for instance, a trade journal, a local newspaper or, indeed, the Stock Exchange notice board would not normally be found to have fallen within such wording if tested at law.

It would seem to be fair that a hard working analyst scanning all possible sources of information should not be penalised if the publication is relatively obscure. The individual shareholder who does not have time for such activities might argue that if a company disseminates information via specialist or local publications then it should at least keep a record of these communications at the registered office for inspection by shareholders.

To summarise, the Society of Investment Analysts has recognised the problems that the insider dealing legislation has created for investment analysts and their working practices. Attempting to elicit extra information from companies has long been part of an analyst's

activities. This has been viewed with some disquiet by other members of the investing community. The guide-lines address the problem and provide a framework within which analysts may operate legally.

Events have not stood still since the Society issued its guide-lines on insider dealing in 1981. A revised document was issued in December 1986 with references to the Company Securities (Insider Dealing) Act 1985 although the actual guide-lines remained unchanged (Society of Investment Analysts, 1986).

The Report and Accounts of the Society of Investment Analysts for the year ended 31st July 1989 (Society of Investment Analysts, 1989a) state that a seminar on 'Insider Dealing and the Investment Analyst' was held and that this was followed by a discussion meeting entitled 'Compliance - Is your career in danger?'. The regulation committee makes the following report:

Insider dealing: The Council believes the Society should continue to take a strong position on the potential damage done by over-restrictive regulation of insider dealing. It can create unfairness between participants in the market and drive elicit (sic) information underground. It can lead to market inefficiency through bad pricing and bring regulation itself into disrepute.

EEC: The issues contained in the EEC proposals on Insider Dealing are of great importance. There is an irreconcilable difference between the principle of absolute fairness, in which no market participant has an information advantage, and the principle of market efficiency in which the acquisition of superior information is rewarded.

The Society changed its name to the Institute of Investment Management and Research in 1991. The Report and Accounts for the year ended 31st July 1992 contain the following report from the regulation committee:

The most important component in the Regulation Committee's activities in 1991/92 related to insider dealing. The Stock Exchange Quotations Committee was concerned at the end of 1991 by

what appeared to be numerous breaches of the continuing obligations of listed companies in the private disclosure of price sensitive information.

The Institute was asked whether it would consider issuing a code for its members which could amplify the prescriptions published by the Stock Exchange's yellow book 'The Admission of Securities to Listing'.

After consulting with heads of research departments who had expressed an interest in responding to the Stock Exchange's request, the Institute declined to amend its current code of conduct. Among the reasons for this decision was the belief that: 'it would not be reasonable to require analysts to apply standards that are more restrictive than the law in their use of information because to do so would be to discriminate against the persons who rely upon them for advice and to whom they own a duty of care'.

2.7.2 The Investor Relations Society

The Investor Relations Society has issued, as part of an undated advertising leaflet, a statement entitled 'Principles of Investor Relations' (Investor Relations Society) which is highly relevant and is therefore reproduced in full below :

Investor relations provides the link between a company and the financial community in this country and overseas. Whatever is said or done by investor relations personnel is deemed, by those receiving the information, to carry the approval of the company. The board of directors cannot absolve itself from responsibility for investor relations and in the event of uncertainty, authority should be obtained to act on their behalf.

A company should speak with a single voice and convey a clear, unambiguous message. Ideally, responsibility for investor relations should therefore be vested in a single individual.

Where a number of people including the directors are involved, coordination is essential.

The purpose of investor relations is to help the financial community and investing public to evaluate a company. Its role is to provide comprehensive information for independent assessment and not actively to promote the purchase or sale of a company's shares.

No audience is privileged in investor relations. Employees, shareholders and potential investors have equal status in terms of the listing agreement with the Stock Exchange. Identical information should therefore be available and given simultaneously to all audiences, including employees, investments analysts and the media.

To avoid creating a false market in the shares of a company it is important not to convey price sensitive information to an individual or group of individuals, rather than to the market as a whole. The emergence of a global market in securities has made this obligation international as well as domestic.

Investor relations is not simply a process of making available and disseminating information. Close personal contact with the financial community also provides the company with a clear insight of how it is perceived by investors. At best, therefore, investor relations encourages a two way flow of awareness and should never be used as a barrier between the company and its audience.

The above principles are aimed at executives responsible for investor relations and make clear the fact that the investment analyst group should not be favoured in any way in granting access to information.

2.7.3 The Institute of Directors

The Institute of Directors has issued a 'Guide to board room practice No 7 - Insider Dealing' (1985) which includes the following comment (p.12) on the provisions of the Company Securities (Insider Dealing) Act 1985 :

The second basic rule: Anyone who knowingly receives inside information from an insider may not use it to deal.

It could be thought that this provision would make a company's brokers (or, indeed any other brokers contacting a company for the purposes of market analysis) unable to deal in the company's securities at all and, therefore, unenthusiastic about having what should be regarded as a generally acceptable discussion with a director about his company. In fact, the Act should not affect that position. No broker should be given information which goes beyond that available generally to shareholders although it is permissible and, indeed, often beneficial, to expand upon known facts in order to explain properly the position of the company.

Although the above comment addresses the problem of company contacts with investment analysts its conclusion is not entirely satisfactory. If a company 'expands upon known facts' it may well be providing investment analysts with superior information than that generally available to shareholders.

2.7.4 The Financial Analysts Federation

The Financial Analysts Federation in the United States has issued a code of ethics and standards of professional conduct. These were amended on 14th May 1989 and apply to the FAF and the Institute of Chartered Financial Analysts (Financial Analysts Federation, 1989).

Standard of professional conduct II B prohibits analysts from assisting in legal and ethical violations and standard II C is a prohibition against the use of material non-public information:

The financial analyst shall comply with all laws and regulations relating to the use and communication of material non-public information. The financial analyst's duty is generally defined as to not trade while in possession of, nor communicate, material non-public information in breach of a duty, or if the information is misappropriated.

Duties under the standard include the following:

(1) If the analyst acquires such information as a result of a special or confidential relationship with the issuer or others, he shall not communicate the information (other than within the relationship), or take investment action on the basis of such information, if it violates that relationship.

(2) If the analyst is not in a special or confidential relationship with the issuer or others, he shall not communicate or act on material non-public information if he knows or should have known that such information

(a) was disclosed to him, or would result, in breach of duty, or

(b) was misappropriated.

If such a breach of duty exists, the analyst shall make reasonable efforts to achieve public dissemination of such information.

It can therefore be seen that in the United States the profession has addressed itself to the conflict between the analyst's need to research a company and the insider dealing legislation.

In conclusion, it can be said that the professional bodies mentioned in the above sections 2.7.1 to 2.7.4 have all given thought to the problem of maintaining communication between companies and analysts

whilst remaining within the letter of the law. Whether or not members comply with the regulations and guide-lines provided by their associations is a moot point that is addressed in the survey as part of this study.

2.8 Consultative document on the dissemination of price sensitive information

On 14th May 1993 the London Stock Exchange publicly censured London International Group for revealing important information to a group of analysts and institutions rather than to the market generally. At the same time the draft legislation on insider dealing contained in the Criminal Justice Bill (House of Commons, 1992) was about to go before a House of Commons standing committee. Foster (1993) commented that the City reacted with unease to the stock exchange ruling:

City professionals said that the exchange's rebuke to LIG would force companies to review how they release price sensitive information. One observer said the case could result in greater use of public announcements for releasing information, and fewer private briefings for analysts.

In November 1993 a stock exchange working party on the dissemination of price sensitive information published a consultative document (London Stock Exchange, 1993). They invited comments to be received by 6th December 1993. Examination of the document reveals proposals to tighten up considerably on the conduct of the investor relations activities researched in this project.

In particular, it is suggested that companies should decline to answer analysts' questions where individually or cumulatively the answers would provide price sensitive information. They should not correct incorrect figures or assumptions in analysts' reports. Instead they should discuss in general terms whether the analysts' assumptions are sustainable with the aim of getting the analyst to reconsider his assumptions rather than spoon-feeding information. A company should

not feel obliged to make a formal announcement correcting any forecasts by analysts unless the market is being materially misled. Companies should review procedures for the conduct of meetings with analysts. They should consider ensuring that more than one company representative is present and that accurate records of discussions are kept.

The Independent newspaper (1993) dismissed these guide-lines as mostly plain common sense and stated that in effect they are no more than a description of best practice. It suggested the listing rules should not be changed but that a list of practical examples to be used as benchmarks would be useful.

It is likely that company communications with analysts and fund managers will now be subjected to a period of intense scrutiny with the enactment of the new insider dealing legislation and with the possibility of further stock exchange action.

2.9 Conclusions

This chapter has attempted to summarise the legal and regulatory framework relevant to communications between companies and investment analysts. Some disquiet has been voiced by earlier researchers on the subject, in that investment analysts may have had access to unpublished price sensitive information via company meetings, telephone calls and company visits. In the UK in the 1980s legislation on insider dealing and the regulation of investment business has addressed the problem to a certain extent and the ground rules appear to be more firmly established than was the case previously. Professional codes of conduct have addressed the matter more directly but have tended to support existing practice and defend it with reference to the new legislation.

Further developments in legislation are now under way arising from European Community law directives and the interest of The Bank of England, the Treasury and the Department of Trade and Industry in this

particular problem area. The chapter has outlined these developments and concluded that the new insider dealing legislation will have little effect although there is a possibility that stricter stock exchange regulation may change the conduct of investor relations.

One solution would be to outlaw all informal communications between companies and analysts. Analysts would then have to rely on announcements via the company news service of the London Stock Exchange. This does not appear to be the intention of the legislation passed by Parliament but the situation will certainly be less flexible in the future.

This chapter has established the legal and regulatory restraints affecting company communications with analysts and fund managers. The next chapter will review the role of the financial analyst by examining relevant literature. This will establish more clearly the setting within which investor relations was being carried out at the time of the study.

Chapter 3 Identification and Description of the Financial Analyst Group

3.1 Introduction

The aim of this chapter is to provide a brief overview of the financial or investment analyst group. Since the overall aim of this study is to examine the informal information disclosures that companies make to investment analysts it is appropriate to describe the role of analysts in the market place and to give an indication of the size of the population and their employing organisations.

Investment analysis has increased in importance over the past thirty years due to the large increase in professionally managed funds. The largest and most active investors in the United Kingdom are the professional fund managers of insurance companies, pension funds, merchant banks, investment and unit trusts. Lee and Tweedie (1981, pp.4-5) provide a review of the increasing importance of institutional investors over the years. Investment analysts are employed by these institutions and also by stockbrokers. Not all firms of stockbrokers employ a research department and since the Stock Market crash of October 1987 there has been some reduction of personnel in all areas of the financial services sector. Around thirty thousand job losses had been reported in the City between the crash and early 1990, although twenty five thousand of these were estimated to have found alternative employment in the same sector.

Analysts can be categorised into two broad categories: portfolio managers and information intermediaries (Moizer and Arnold, 1984).

Portfolio managers are those investment analysts who themselves use the information gathered from their own appraisal of equity shares in the management of portfolios. Information intermediaries are those investment analysts whose share appraisal information is used by third parties but not by the analysts themselves.

In order to describe the investment analyst group it is necessary to answer the following questions. Who are they, who do they work for and what do they do? These questions can be answered by reference to several sources of information.

There are numerous directories which provide listings of firms and personnel, including investment analysts, in the financial services sector. These directories also provide, by way of editorial comment, up to date information about trends in the industry.

In general when a profession develops within society, professional organisations are formed to promote and regulate the profession. Financial analysis is no exception and the literature produced by its professional organisations is helpful in building up a description of the financial analyst group.

Previous research into the activities of the financial analyst group provides useful information about the composition of the group. A review of the literature reveals the information sources for sample selection. Details can also be obtained regarding the employers of financial analysts, the experience and qualifications of analysts and the activities carried out by analysts

3.2 Directories as a source of information.

There are a number of directories that provide listings of firms and personnel in the financial services industry. The aim of this section is to review a number of these directories and to extract some information about the size of the investment analyst group and the numbers of employing organisations of different types. In addition, the directories are reviewed for relevant editorial comment and other descriptive material.

The London Stock Exchange publishes 'Firms and Members' the official directory of London Stock Exchange member firms three times a year. In 1988/89 there were 391 member firms and 5,202 individual members

Table 3-1 Organisations employing analysts

	Number listed
London member firms of the London Stock Exchange	271
Foreign stockbrokers in London	8
Toronto and Montreal	42
New York	36
Japan	
Investment trust companies	155
Unit trust managers	138
Major UK life insurance companies	121
British insurance companies	455
London members of the society of pension consultants	63
British merchant banking and securities houses	63
Authorised institutions under the Banking Act 1987	534

Source: The City Directory 1990

(International Stock Exchange, 1988). Many, although not all, firms of stockbrokers maintain research departments employing analysts. Another publication is the 'Stock Exchange Press Directory of Unit Trust Management' (Matatko & Stafford, 1988), providing a comprehensive guide to unit trusts and the people who manage them. The Directory is published annually and includes a directory of fund managers. The 1988 edition provides track records for over 600 fund managers and performance data for over 1000 funds managed by 155 different companies. These institutional investors have their own in-house analysts but they also make use of research provided by firms of stockbrokers.

The Hambro Company Guide is published quarterly and provides listings of financial advisers and their clients, financial public relations advisers and their clients, stockbrokers and their clients and investment trust management groups. The guide for the 1989 quarter November to January lists 117 firms of financial advisers, 121 financial public relations advisers and 137 firms of stockbrokers (Hambro Company Guide, 1989).

The City Directory published by Director Books (City Directory, 1990) provides listings of firms in the financial services sector as follows: banking sector institutions, the money market, the stock market, funds, insurance, building societies, financial and investment services, commodity and bullion markets, shipbrokers and airbrokers, professional services, property, advertising and public relations, miscellaneous business services and the financial press. Within some of these major sections are subsections of the industry that employ financial analysts. Table 3-1 provides a listing of the numbers of firms in those parts of the financial services sector that are likely to employ equity analysts.

Crawford Publications, a division of The Economist Publications Ltd., publishes three useful directories. 'Corporate Finance' provides inter alia listings of stockbrokers and fund managers (Crawford's, 1986). The 'Directory of City Connections' (Crawford's, 1989) provides listings of investment trusts, pensions funds, stockbroking firms, financial advisers, financial public relations consultants,

Table 3-2 Investment research listings

Industry research analysts
Statistical service specialists
International market specialists
UK research (53 firms listed)
Australian stockbroking firms in London (12)
Canadian stockbroking firms in London (12)
Japanese stockbroking firms in London (14)
US stockbroking firms in London (29)
Financial Public Relations Consultants (59)
Investor relations officers in top 500 companies by industry sector

Source: Crawford's Investment Research Index 1987-88

pension fund consultants and an institutional investor index. The 'Investment Research Index - The guide to UK investor relations' (Crawford's, 1987) is particularly relevant to this research project since it provides a number of useful listings as shown in table 3-2. (This directory was discontinued after the 1987/88 edition).

The industry research analysts listing provides some interesting information. It divides industry into 97 different sectors and provides a list of the organisations covering each sector. In addition it names the individual(s) within the organisation responsible for covering the sector. In the vast majority of cases only one individual is named however in some organisations there may be 2-4 named individuals. There are 2022 individual analysts listed in total although some of these are listed under more than one industry sector. Some industries receive more coverage than others, a summary is provided in table 3-3. On average it appears that an industrial sector has around 21-30 analysts working on it.

The 53 firms listed in the UK research section consist mainly of stockbrokers, or the broking or research sections of financial services firms. However, one firm offers the following comment:

We are the City's only independently owned and managed specialist investment research house, providing original, thorough and impartial analysis on smaller and medium-sized listed companies, to stockbrokers and institutional investors. We are not involved in market making, dealing or any other activity which could give rise to a conflict of interest with our research clients.

The statistical service specialists section provides listing of firms offering, inter alia, charts and technical analysis, economic reports and forecasting and fund management.

The international markets specialists section provides listings of firms offering advice on 24 different countries. The preface to the 1987/88 edition of this directory contains a number of interesting points relating to investment analysis:

Table 3-3 Industrial sectors and analyst coverage

Number of industrial sectors	Number of analysts
17	1-10
29	11-20
36	21-30
12	31-40
3	41+
Total = 97	

Source: Crawford’s Investment Research Index 1987-88

Before Big Bang there was much pessimistic speculation on the future of research in a commission-cutting world. So far, however, strong research houses have benefited from the change. James Capel's top quality research in a growing number of sectors has been rewarded with an increase in its share of business.

Though Big Bang has given many institutions the chance of dealing directly with market makers free of commission, many continue to conduct most of their business on an agency basis to benefit from the research output of the stockbroker involved. Three out of four fund managers say they are more keen to see an improvement in research rather than a further drop in commission rates.

Two other unsolved questions remain for research departments and their clients. First, how independent can the research analysts of the new financial conglomerates hope to remain? The issue was highlighted in early 1987, by the uncomfortable strains within Barclays de Zoete Wedd, the securities house set up by Barclays Bank, when its banking analysts advised clients to sell Barclays stock. BZW has since announced that it will not drop its coverage of its parent's shares. The affair may have important repercussions for the other investment banking houses stitched together for Big Bang.

A second question is the stability of research department staffing. The games of musical chairs played by analysts continue unabated. Many brokers are reporting weekly approaches to their staff from headhunters for foreign firms....

Crawford's Investment Research Index is no longer in publication but a new directory, Briton's Index of Investment Research Analysts in the UK, has appeared. First published in 1989 it is updated quarterly. The September 1990 issue gives the names of over 2600 analyst personnel covering 110 UK industry sectors (Briton's Index, 1990).

Following the stock market crash of October 1987 there have been manpower reductions in all areas of the financial services sector including stockbroking and research departments. However, the

Chairman of The Society of Investment Analysts in his statement for the year ended 31st July 1989 (Society of Investment Analysts, 1989a) reports that, although recruitment into the City is declining sharply, student admissions remain buoyant at well over 300 per annum.

In concluding this section an estimate of the number of UK equity analysts and the number of employing organisations can be given. There appear to be in the order of two to three thousand equity analysts working for several hundred different employing organisations. This can be compared with the number of shares included in the Financial Times All-Share Index on 1 July 1990. This index included 680 stocks of which around 160 are major (alpha) stocks. The number of analysts that any one company is likely to deal with in its investor relations programme will, in most cases, be under 50.

3.3 Professional organisations

The aim of this section is to provide an outline of how the investment analyst profession is organised. This will be achieved by providing a brief description of the professional bodies involved.

Although it is not necessary to have a professional qualification to work as an investment analyst there are professional organisations offering recognised qualifications. The Society of Investment Analysts was founded in 1955 and in 1989 there were 39 Fellows, 1806 Associates and 834 students. It was renamed the Institute of Investment Management and Research in 1992. Membership is drawn from the investment community and particularly from those whose work is concerned with analytical techniques. Associate membership is by examination and there is a relevant experience requirement. Other relevant qualifications include the London Stock Exchange examinations and accountancy qualifications. According to Freeborn (1988) around 20% of analysts are accountants.

Some writers have expressed dissatisfaction with the qualifications and calibre of analysts. For example, Ryder and Regester (1989, p.52) make the following comment:

The internal structure of the typical broker will include a research department, laid wall-to-wall with analysts usually covering one particular sector or two or three smaller ones each. Each is equipped with a huge variety of information sources. They are often very young with backgrounds varying from degrees in economics, business or underwater basketweaving, to former trade journalists. Some, though not many, will have come out of the sectors they are now covering and a few will still be of the old guard. There is however, a noticeable trend towards employing people straight from university with no experience of industry whatsoever.

The European Federation of Financial Analyst's Societies was formed in 1962 and comprises twelve societies throughout Europe. The aims of the federation are (European Federation of Financial Analyst's Societies, 1989):

1. To raise the standards of financial analysis.
2. To improve the quality and quantity of information given to investors
3. The unification of methods of analysis in different countries.

The situation in the USA is dominated by two related organisations, the Institute of Chartered Financial Analysts (ICFA) and the Financial Analysts Federation (FAF).

The ICFA offers membership by examination combined with an experience requirement leading to chartered financial analyst (CFA) status. A total of 11,087 charters have been awarded over the twenty-six years (1963-1988) of the CFA candidate programme and in 1988, 7091 candidates sat for examinations. The research foundation of the ICFA sponsors research of practical value to, and for use by, investment

practitioners. The ICFA was founded by the FAF in 1959 and the two bodies have recently merged and become subsidiaries of the Association for Investment Management and Research (AIMR).

The FAF was established in 1947 and serves over 17,000 members in 62 societies and chapters in the United States, Canada and abroad. A broad base of investment practitioners are represented in the Federation's membership. These include research analysts, investment counsellors, portfolio and pension managers, economists, financial analysts and others. The FAF has a two fold mission. Firstly, to create and disseminate knowledge and provide services of direct benefit to its members and secondly, to develop and enhance the ethical and professional standards of its members and other in the investment community.

The International Society of Financial Analysts (ISFA) was formed as a constituent society of the FAF in 1985. The specific missions and objectives of the ISFA are (International Society of Financial Analysts, 1989):

To encourage and contribute to closer cooperation and coordination between and among world-wide professional investment organisations and their members, including the European Federation of Financial Analysts Societies, The Asian Securities Analysts Council, the Institute of Chartered Financial Analysts, and the Financial Analysts Federation.

To provide an organizational entity with which qualified investment professionals can identify for the purpose of sharing international experiences and benefit from educational and other programs, as well as services applicable to the investment decision making process including already accumulated technical knowledge in these areas.

To encourage and to provide the necessary support to members of ISFA and its affiliates, to contribute to and otherwise enhance the body of knowledge applicable to the world-wide investment

decision making process through appropriate programs, publications, and other forms of communication.

To work toward world-wide regulatory and ethical standards, and to encourage a professional practice environment that recognizes the best interests of national government policy, the professional constituency, investors, and the public.

The ISFA currently has two affiliated groups of professional practitioners, in Bermuda and Singapore. These are independent organisations incorporated under the laws of the country in which they are formed.

In concluding this section, it appears that the US branch of the profession is more developed than in Europe. This is not surprising since the US stock market is the largest and most highly developed in the world apart from Japan. In the UK, companies will be dealing with analysts from a variety of different backgrounds. They may be well qualified, either by experience or by holding relevant professional qualifications or they may be lacking in experience with no relevant educational background.

3.4 Previous research as a source of information describing the financial analyst group.

The next section of this chapter will summarise the populations of investment analysts used in previous research projects. This will provide additional insights into the types of organisations that employ analysts and the profiles of the analysts themselves.

Lee and Tweedie (1981) in 'The Institutional Investor and Financial Information' surveyed 225 respondents. Initially it was intended to concentrate on major financial institutions but it was decided to include stockbroking firms within the survey. Financial institutions were sub-divided into insurance companies, pension funds, investment and unit trusts and merchant banks. Each of the financial

institutions and stockbroking firms sampled were asked to allow two of their senior employees to be interviewed independently. In the institutions preferably a senior investment manager and a senior investment analyst and in the stockbroking firms, two senior analysts or partners. It was intended that interviewees should be concerned primarily either with portfolio selection or with the analysis of the financial position and progress of individual enterprises. Major financial institutions within a reasonable travelling distance of London and Edinburgh were selected from the list of institutions given in the 1975-1976 Times 1000. The Stock Exchange Official Year Book was then used to increase the sample of insurance companies. The sample frame for stockbroking firms was drawn from the yellow pages of the Post Office telephone directories.

In total 140 organisations were visited and 231 interviews were carried out. In order to construct an aggregate profile of the respondents a number of background factors were sought: the respondent's sex, number of shareholdings in, and market value of the portfolio(s) to which the respondents work related, whether the respondent had the final say in investment decisions, the number of years' experience of investment in a financial institution or stockbroking firm, the respondent's experience of using accounting information and the respondent's accounting knowledge and related experience. In summary, the typical institutional investor was male, likely to be involved in investment decisions, to have had 6 to 20 years experience in the investment community and of handling accounting information, to have had little or no formal training in accounting, to have been involved with portfolios containing 500 or fewer shareholdings with a likely value range from £1 million to £1,000 million. The typical stockbroker was likely to have similar personal characteristics but was unlikely to relate his work to any particular portfolios or to be involved in investment decision making.

Arnold and Moizer (1984) in 'A Survey of the Methods Used by UK Investment Analysts to Appraise Investments in Ordinary Shares' and Arnold, Moizer and Noreen (1984) in 'Investment Appraisal Methods of Financial Analysts : A Comparative Study of U.S. and U.K. Practices' surveyed a random selection of 465 members of the Society of

Investment Analysts. They were selected from the UK section of the 'Member Societies Year-book' of the European Federation of Financial Analysts' Societies. The sample was found to be randomly distributed between institutional and stockbroking analysts. A further sample of 40 non-members of the society was selected from a survey of UK investment managers published by Continental Illinois Ltd entitled 'Ranking of UK Investment Analysts - Seventh Annual Survey ' (1980). These non-members were all employed by the large UK stockbroking firms and tended to specialise in a particular market sector. The US version of the questionnaire was sent to a random sample of 400 members of the Financial Analysts Federation. The following characteristics of the sample population were found :

The UK respondents included individuals who analysed the ordinary shares of companies quoted on the UK Stock Exchange. The remaining analysts analysed other UK securities such as gilts, properties etc., and analysed overseas opportunities. These replies were ignored as the paper was only concerned with UK equity analysts.

Most of the sample worked for stockbrokers (53.5%). Others worked for insurance companies (14.3%), banks (9.9%), pension funds (8.4%) and investment management companies (6.9%). Smaller numbers worked for stockjobbers, investment trusts, industrial companies and others.

As part of the analysis the authors established profiles for the average analyst in the UK and the USA. They found that:

....the 'average' analyst in both countries works for an organisation which employs just over ten analysts. He or she spends approximately 60 per cent of the work week evaluating the common stock of publicly traded companies and analyses approximately forty companies on a regular basis and an additional twenty-six on an irregular basis. US analysts are significantly more experienced than their UK counterparts; they have been engaged in financial analysis for an average of just under sixteen years, compared to twelve or thirteen years for UK analysts. Approximately 50 per cent of both UK and US analysts specialize in a particular market sector, and a similar percentage of both types

of analyst themselves use the information they generate for the purposes of portfolio management (Arnold, Moizer and Noreen, 1984, p.3).

Moizer and Arnold (1984) in 'Share Appraisal by Investment Analysts - Portfolio vs. Non-Portfolio Managers' carried out further analysis on their previously established sample of UK equity analysts. They categorised analysts either as portfolio managers or as information intermediaries. They defined portfolio managers as those investment analysts who themselves use the information gathered from their own appraisal of equity shares in the management of portfolios.

Information intermediaries were defined as those investment analysts whose share appraisal information is used by third parties but not by the analysts themselves. They then compared and contrasted the equity share analysis procedures of the two categories of investment analysts.

They found that in general the information intermediaries tended to work in stockbroking firms whilst the portfolio managers tended to work in firms of institutional investors. It was found that some analysts acted both as portfolio managers and as information intermediaries. They found that portfolio managers spent on average much less time within the working week appraising UK equities than information intermediaries (49% compared to 72%). They also found that portfolio managers generally analysed more companies on a regular basis than information intermediaries (An average of 49 companies compared to 34 companies). These findings suggested that portfolio managers performed a less detailed analysis than did information intermediaries. They found three other significant background differences between the two groups of analysts. Portfolio managers tended to work for organisations which employed fewer analysts than the firms employing information intermediaries (an average of 8.6 analysts compared to 13.0). Portfolio managers had more experience of investment analysis than did information intermediaries with 62.9% having over ten years experience compared to 48.2%.

Day (1986) in 'The Use of Annual Reports by UK Investment Analysts' contacted eighteen firms of stockbrokers including most of the large

City firms, plus some smaller ones and one Birmingham based firm. Due to the small sample no claim could be made for those seen to be representative of all firms or all investment analysts. The fifteen firms willing to cooperate nominated a senior analyst or partner to participate in the study.

Hirst (1988) in 'Stockbrokers' research in the UK - Determinants and effects' obtained the cooperation of 31 stockbroking firms. They included all the leading institutional stockbrokers with one exception. There were more than 200 firms operating in the London stock market at the time of the survey but the great majority of these were small firms specialising in private client business. The research partner of each stockbroking firm identified the securities which his firm followed and this was followed by a questionnaire to the individual analyst. 1098 research links were found between 31 brokers and 146 securities.

This section has given an overview of how previous researchers have identified populations of investment analysts prior to carrying out their specific research objectives. It has also provided some descriptive information about analysts in terms of who they work for, what their experience and qualifications are, and what they do.

3.5 The work of a financial analyst

The aim of this research project is to study the communication of information by companies to investment analysts with particular reference to meetings with analysts, responses to telephone calls and company visits. In order to place these activities in context the next section of this chapter will give a brief overview of the complete range of activities carried out by investment analysts.

A useful introduction is contained in a promotional leaflet issued by the Society of Investment Analysts entitled 'Investment analysis as a career':

Type of work

Institutional funds may place large sums of money running into hundreds of thousands or indeed millions of pound in the equity of a single industrial, commercial or financial company. Not unnaturally they look for detailed assessments of the prospects of individual companies and the industries within which they operate. They also look for judgement on the ability of the company financially, technically and managerially to fulfil the prospects which the circumstances of its industry offer.

The job of investment analyst whether he is employed by a stockbroker or by an investing fund is to be able to make such detailed assessment. The means open to him include a number of quite different avenues, of which the first to be mentioned must be the published financial statements of the company itself. It is a fairly natural progression to compare results and performance of one company with those of others in the industry. These comparisons will show rates of profitability in terms of assets employed and turnover.

On a more general statistical level, the fortunes of every company are in the last resort affected to a greater or lesser degree by all types of events throughout the world, social, economic and so on. British industry is affected by such diverse events as the price of oil, the weather, the results of General Elections in this country, the level of wage settlements not only in this country but throughout Europe and the vicissitudes of currencies. On a more factual plane, statistics are regularly published on exports and imports, levels of output of a wide variety of industry, so that it is possible for instance, to check the level of retail trade and the share of that trade being taken by the different types of shop. It is also possible to check the volume and value of exports of for instance china clay from this country month by month. Another relevant aspect is technological change which might well profoundly affect the business of a company, particularly one dependent upon a single product or group of products.

When an analyst has acquired sufficient knowledge and experience of an industry he may well have the opportunity of visiting management and of inspecting plant. The experienced analyst will be able to make a judgement upon the ability of the men he meets to fulfil the objectives which they have set themselves, the depth of management, the quality of financial control, and the general structure of the company, as well as its technological position in relation to future development.

Having gathered together the information and made his assessment the analyst now has to convey this to either the client or his own fund manager. He has, therefore to be able to write in an acceptable and digestible form the gist of his conclusions about the finances, the management, and the operation of the company concerned. In his assessment he will almost certainly nowadays be required to make an estimate of the future trends of the company's profits and earnings per share.

So far, nothing has been said about an important side of work which may well fall on the shoulders of the investment analyst. This is share price evaluation. However good an assessment of a company, its past, its present, and its prospects, the analyst's work can only be of value if he compares his assessment with that already being made by the current market price. He has, therefore, to be aware of each share price in relation to the group in which it falls, and to the market as a whole. He must decide whether the share at the current price and in relation to the prospects which he sees for the company are good or bad value. As all equity share prices are moving all the time both in relation to each other and in relation to prices abroad, to gilt-edged prices etc., share price assessment is a constant process and the analyst may well be asked from day to day for his views.

Investment analysts nowadays specialise more because the body of published information about companies is growing and because demands by professional investors for more and more accurate information is constantly increasing. A trainee analyst setting out may have the choice between becoming a specialist in a

relatively small area of industry working in a large office or being a much more general but more superficial analyst having to cover wider areas at a lower level of knowledge in a smaller office.

The extract from the Society's literature quoted above shows that basically analysts are involved in the decision to buy, sell or hold an investment. They may act on their decisions if they are portfolio managers or they may pass their opinions on to third parties if they are information intermediaries.

Many different techniques of varying degrees of sophistication are used by analysts in formulating their decisions. These include fundamental analysis of general business conditions, industry outlook, earnings, dividends, quality of management etc., technical analysis of market based factors such as share price movements, charts etc., beta analysis of the responsiveness of the price of a particular company's shares to changes in the value of some market average. Profit forecasts are often produced by investment analysts (Westwick, 1983, pp.134-147).

It is generally supposed that the work of the analyst leads to better investment decisions than would otherwise be taken. However the efficient market hypothesis presents a challenge to this view. The hypothesis states that if the market reflects all public information the price of a share will equal its semi-strong worth. Investors will achieve abnormal returns only by chance or by obtaining access to private or inside information. The efficient market hypothesis presents obvious problems if an analyst is being paid to produce results that are better than the average. Keane (1983, p.116) considers the position of analysts in an efficient market.

As for the role of investment advisers, an efficient market can be assumed to depend heavily upon the activities of skilled analysts and it can be argued that, even without the prospect of superior profits, there is a strong incentive for the major investment institutions to employ their services. In addition, ordinary investors will continue to need financial advice when their

personal circumstances demand some individual tailoring of the theoretically optimal solution. Nonetheless, the conclusion is inescapable that the role of the analyst qua adviser is significantly modified, and in some respects significantly diminished by the market's efficiency. The notion that an investor can draw upon the analytical services of his broker, or his banker, or the financial press, to secure a list of mispriced securities from which he can reasonably expect to profit, is irreconcilable both with the notion of efficiency and with the accumulated evidence. The role of the investment adviser is best perceived as fundamentally to assist less informed investors, not to beat the market, but to adapt its benefits to their personal circumstances. There is much to be done in that sphere, and it must ultimately serve advisers' own interests if they help to dispel the popular concept of the security analyst and the notion that a harvest of superior profits is there to be reaped (Keane, 1983, p.116).

The efficient market hypothesis therefore has fundamental implications regarding the activities and the role of financial analysts. The paradox outlined by Keane above is unlikely to be resolved in the near future. Much research work has been done in an attempt to test the efficiency of the markets and to identify anomalies. A number of situations in which abnormal returns appear to result have been identified but on the whole the empirical research indicates that the US and UK markets are efficient at the semi-strong level. This has led to the emergence of market based funds whose aim is to hold a portfolio approximating to the market as a whole rather than attempting to pick a portfolio which, it is hoped, will outperform the market.

This section has presented an outline of the type of work carried out by the investment analyst. The efficient market hypothesis has been shown to be of relevance to the working practices of investment analysts. If analysts believe in the hypothesis they will be aware that they need inside information in order to beat the market. This may lead them to attempt to obtain inside information from companies

by means of telephone enquiries and private meetings with company management.

3.6 Conclusions

This chapter has outlined the role of the financial analyst within the market and has described the ways in which analysts carry out their work. It has also provided information about the composition of the group of analysts, who they work for, how many of them there are and what sort of people they are in terms of experience and qualifications. The chapter has served to set the scene for the main thrust of the study, which is to examine in detail one aspect of the work of analysts. That is, the informal communication channels that exist between companies listed on the London Stock Exchange and analysts concerned with researching their equity shares.

The next chapter will review the literature on investor relations paying particular attention to the analyst and fund manager audience.

Chapter 4 The Investor Relations Function within Companies

4.1 Introduction

In order to investigate all types of literature concerning the investor relations function it is necessary to move away from the financial reporting literature and to turn attention to the subjects of management, marketing and public relations. It is clear from the literature, which consists mainly of books and articles advising management of the importance of this 'new' area, that investor relations is a developing area of importance. To set the scene, two authoritative opinions on the investor relations function will be presented in this introductory section.

The Listed Companies Advisory Committee (1988) of The London Stock Exchange has issued a booklet entitled 'Investor Relations A guide for directors'. They make the following comments (p.7):

We believe firmly in the importance of developing an active and integrated approach to contacts with shareholders. Investor relations should be regarded as a professional discipline, the purpose of which is to provide sufficient information on the company to make informed investment decisions.

Senior management and the Board have an important part to play in this. Personal contact with shareholders is at the heart of a successful investor relations programme.

An effective programme of financial communication complements the responsibilities of the Board for the timely and general release of price sensitive-information. It does not in any way release the Board from those formal responsibilities or override them. The programme may be delegated to an in-house communications group or to a financial PR consultancy. In either case the individuals involved need to report at senior level and to be kept well informed of company policy, results and strategy. Spokesmen share with directors the duty to ensure at all times that their public statements do not mislead the investment community.

Makinson (1989, p.ix), a former editor of the Financial Times Lex column, makes the following comment:

Investor relations is a young and immature industry even in the United States. In Britain it is in its infancy. Long recognized - to the extent that it has been recognized at all - as a minor branch of public relations, or a weekend pursuit for industrious finance directors, investor relations is finally coming to be seen as one of the most central and time consuming functions of senior corporate management....But there is undoubtedly a greater recognition on the part of the corporate sector that it needs to establish stronger and more regular relations with financial audiences and, above all, with key investing institutions. As it enters its tenth consecutive year of rising profits, the corporate sector is robust, affluent and self-confident. It has come to value good relations with its owners and has recognized that developing those relations is a job which should be undertaken by the senior management of the business as well as by spokesmen, stockbrokers and advisers. The best investor relations advice that can be given to the boards of British business is - do it and do it yourselves.

The term 'investor relations' is treated by some authors as being synonymous with 'financial public relations'. Both terms are used to refer to in-house activities and the bought in services of consultants. Dark (1988), however attempts to distinguish the two terms:

According to most practitioners, the future of financial PR lies with investor relations, otherwise known as IR. Some operators view the boom in the number of IR divisions in consultancies as merely a repackaging of what financial PR has always been about. Certainly it encompasses many activities well-established as 'financial PR', such as annual report production, the use of video, TV training, corporate literature and identity. With the recent growth in employee share schemes, IR also nudges employee relations. Consultants may have conflicting views of what IR actually represents, but generally its definition by consultancies

seems to shift from financial press relations, and concentrated attention on analysts' perceptions of companies, to a wider programme that centres on institutional shareholders.

Preis and Berbers (1990, p.102) define investor relations as follows:

Investor relations is the mechanism companies use to tell the City about themselves - a corporate communications function aimed at positioning a company's shares as an attractive investment vehicle.

They state that one of the primary objectives of an investor relations strategy is to manage the performance and perception of a company's shares in order to benefit fully from the low cost of raising equity capital. The investor relations practitioner must work to ensure a proper valuation of the company's shares by financial analysts and market intermediaries. He must work to diversify the shareholder base to include stable key shareholders rather than a series of opportunists. He must identify the technical and perceptual factors impacting on investor demand, that is, the number of shares available, share liquidity, price volatility and corporate image.

This chapter will concentrate on in-house investor relations (or financial public relations) and a separate chapter will provide an overview of the use of external consultancies.

4.2 Establishment of an investor relations function within the company

The aim of this section is to examine the views of a number of authors regarding the establishment of investor relations as a management function.

Gummer (1987, pp.39-40) places responsibility for the financial public relations policy in the hands of the chief executive:

The chief executive, therefore, who is reviewing the firm's current financial PR advice or, more importantly, is bringing financial PR on board for the first time, must be perfectly clear about what the PR role is to achieve for the company and how it will interface with other advisers. There is only one satisfactory way into and through this problem. Chief executives (and 99 per cent of the time this role cannot be delegated) must set down clearly what they believe financial PR can achieve in the normal course of events - particularly in handling the financial calendar. This should be agreed with the other advisers - the merchant bankers, stockbrokers, etc. - and with the internal finance director, company secretary, and PR officer. It is only when this has been agreed that the more high-profile roles in flotation, take-overs, and mergers can be considered.

Ryder and Regester (1989, pp.172-173) also consider that responsibility for investor relations lies ultimately with the chief executive. He must be closely involved in developing the objectives and strategy for the IR programme which reflect and support the company's long term business goals. They propose that other members of the IR team must include:

The finance director, so that financial data can be collated, strategic messages built up for transmission to the investment community and an intelligent reception given to any messages that come back.

The company secretary, whose role it is to ensure that the share register is kept up to date and designed to provide information about shareholder demographics at great speed when needed to keep those on the IR team informed of any significant changes on the register and to ensure that the IR process complies with all the regulations that apply. The IR manager, whose job it is to design corporate messages which accurately reflect the overall business

objectives of the company and to drive and co-ordinate the IR programme.

They proceed to discuss the qualities needed by the IR manager:

Appointment must be made at a senior level so that the IR manager is close enough to the people running the company (or be one of them) to be able to interpret facts and events properly on the company's behalf. Financial, company and sector knowledge are essential pre-requisites but, most importantly, he must be a communicator with marketing skills.

Hayes (1989, pp.146-150) considers that the best practice in investor relations consists of establishing an in-house specialist and using outside help at three levels, strategic, specialist and for special projects. He advocates the establishment of an investor relations committee chaired by a director. The secretary should be the in-house executive responsible for financial PR and external consultants should sit on the committee. He recommends that investor relations should be integrated into corporate communication and the management decision making process.

This section has presented the views of a number of expert practitioners - and that view is unanimous in seeing investor relations as a high level management function.

4.3 Overview of the activities of the investor relations function

The aim of this section is to provide a summary of the views of various authors regarding the activities that should be carried out by the investor relations function. As a first step the audience or key targets must be defined. Ryder and Regester (1989 pp, 173-174) provide the following suggested audience listing:

Investors

- institutional investors (pension fund managers, insurance companies, unit trust groups and investment trusts)
- government (as an investor)
- charities (eg, the church commissioners)
- banks
- brokers (as fund managers)
- other companies
- overseas investors
- individual investors
- employees as investors

Advisers

- brokers' analysts and sales teams
- financial media

They recommend carrying out an analysis of the share register to see where the imbalances lie. This may require outside help from one of the specialist companies that offer the service.

Once the target audience has been identified the programme can be executed. Ryder and Regester (1989, pp.174-175) summarise the procedures. It is necessary to:

- design messages which reflect and support the company's objectives and likely performance; and communication programmes which reach defined audiences in a timely and effective manner. The main channels of communication are:

- annual report and accounts
- interim report
- company fact book
- databases and directories
- advertising
- company announcements

Table 4-1 Duties of financial public relations function

Financial calendar

Half-year results/interims
- press release
- distribution
- brief company personnel on likely questions
- facilitate access to chairman
Preliminary results
- press release
- distribution
- brief company personnel on likely questions
- brief brokers early in the day
Annual report and accounts
- involvement in design, layout and content
- advice on chairman's statement
- ensure fullest possible, up to date circulation list
Annual general meeting
- establish time, date and location
- establish format and timetable in discussion with company secretary
- review invitation list
- advise on proposed statements by chairman etc.
- advise on attendance of employees and pensioners

meetings and presentations
AGMs and shareholder meetings

Gummer (1987, pp.40-52) suggests that the financial PR programme should be constructed in conjunction with the company's financial calendar accompanied by an ongoing financial PR programme. An outline of his suggestions is presented in table 4-1.

In addition to normal or routine investor relations activities there are special situations to be considered. Ryder and Regester (1989, pp.174-175) consider a number of these. The company should keep track of proposed legislation and be prepared to lobby against the introduction of new laws or to make provision to accept them and sometimes turn them to competitive advantage. There should be special contingency plans for dealing with proposed takeovers of the company. The IR function should not overlook the importance of credit rating agencies due to the increasing importance of debt financing. The agencies should be briefed in order to prevent an undeserved slide in the ratings. When new share issues are being made the investor relations function should prepare literature and make presentations to existing shareholders. Finally, Ryder and Regester present a number of reasons for carrying out international IR and suggest how this activity should be actioned.

It is clear from the above description of investor relations activities that a substantial amount of time and money is likely to be involved. The company should therefore measure the effectiveness of the programme. Ryder and Regester (1989, p.175) suggest the following procedure:

Measure progress against well-defined objectives, eg, maintaining the share price through a series of share issues or attracting more acquisition approaches.

Through research, measure progress against 'common' IR objectives such as, corporate profile, share performance, investor support, changes in share ownership, investor attitudes

Table 4-1 (continued) Duties of financial public relations function

Ongoing financial PR programme

Communicating with the City
- adhere to key principles of openness and honesty
- recognise the needs of the key targets
- establish lines of communication with the City
- institutional communications
- communicating with the private shareholder
Communicating with the Press
- establish principles
- awareness of media role
- building on existing contacts
- knowledge of journalists' timetables
- use of press conferences
- formulating financial press releases
- broadcasting
Communicating with the staff
- establish principles
- treat as an ongoing process

Ensure that the company's performance is measured against that of its peer group

The measurement process can involve commissioning independent surveys. These will be considered in detail in a later section of this chapter.

The growing importance of investor relations has led Economist Publications Ltd. to launch a specialist, restricted circulation, journal entitled 'Investor Relations'. This has appeared quarterly since 1988 and contains articles of topical interest to investor relations practitioners.

In concluding this section it appears that a multitude of activities come within the remit of the investor relations function. Many of these activities would be carried out anyway without the establishment of a specialist function. However, the authors quoted are of the clear opinion that an established investor relations function is essential for companies competing for capital in today's markets.

4.4 Investor relations and the analyst

The aim of this section is to summarise the main points in the literature that refer specifically to the role of the investor relations function in its communications with analysts. These channels of communication may take the form of presentations or City lunches, company visits and telephone conversations.

Newman (1984, p.246) attributes the growth in importance and frequency of the City lunch to the increase in institutional investment. She reports that the largest British companies have as many as ten such lunches each year, arranged by their official stockbroker with a selection of fund managers. Ryder and Regester (1989, p.81) comment that increasingly institutions prefer meetings to be arranged by the company rather than its broker. Smaller companies may only have two such lunches per year. Meetings can also be arranged for analysts

from competing firms of stockbrokers, these can be termed brokers' lunches.

Ryder and Regester (1989, p.78) state that brokers' lunches have largely been discredited but that meetings with brokers remain important for companies if they are to receive fair coverage of their activities in brokers' circulars. One possible reason for the alleged discrediting of brokers' lunches arises from the insider dealing legislation and the danger of inadvertently releasing price sensitive information. R. Lister, a research analyst for Barclays de Zoete Wedd held a seminar in November 1989 at Newcastle University. He commented that if an analyst has a 'good' question he may not want to ask it publicly at a meeting since competing analysts will benefit. He also commented that the bigger the company the more bland the meeting tended to be.

Dignan (1989) reports that there is a widespread desire by companies to get between brokers and fund managers. Investor relations officers have established direct communication channels and set up one-to-one lunches for fund managers with company senior management. Companies perceive fund manager analysts as being remarkably well informed. Often they appear to be much better quality people than the bulk of sell-side analysts employed by brokers.

An unattributed 'Opinion' column in Professional Investor magazine for February 1990 comments on this current trend for the investor relations function to by-pass the company broker:

Direct communication between companies and shareholders may be increasing to the cost of the stockbroking intermediary. Shrewd companies, aided and abetted by increasingly sophisticated investor relations consultants are devoting more time to identifying and talking to important shareholders - actual and potential.

Such companies ask why they should rely on the analyst's report and the stockbroking lunch for their main means of communication with their shareholders. The huge growth in the number of

analysts following the major companies has made investor relations a more irksome process. Far better then to devote more time to talking directly to fund managers, particularly as it means they will receive the 'right' corporate message....

....the stockbrokers' role is slowly being diminished, perhaps to the benefit of the investor relations consultant.

Apart from formal presentations to selected groups of fund managers or analysts, one-to-one meetings are also an accepted practice. Ryder and Regester (1989, p.78) comment:

If practicable, each analyst covering the company's sector should also be seen individually at least once a year, before the IR manager sees the figures, in order to help them put together brokers' reports to predict the full and half-year results. Preferential treatment in terms of the number of meetings and opportunities to meet operational and other senior management should be given only to those analysts who really demonstrate an interest in following the affairs of the company and in trying to understand it, and who have true influence on the company's shares....

The IR manager must also exercise caution in volunteering information. He certainly needn't volunteer any information at all if it is thought that the analyst is going to treat it superficially: the manager can restrict himself simply to answering questions. But caution is paramount if there appears to be a danger of volunteering price-sensitive information. Even an occasional 'nod and a wink' to indicate to the analyst that he is on the right track runs the risk of making the analyst an involuntary 'insider dealer'.

In addition to routine meetings companies often arrange visits to company facilities so that analysts can meet line managers. These often involve complicated organisational arrangements and line managers must be briefed beforehand.

Telephone conversations with analysts are an accepted part of the investor relations programme. They may also be fraught with greater danger from the point of view of the insider dealing legislation. R Lister, the analyst mentioned above, claimed at his seminar that price sensitive information is obtained from telephone calls. The advantage of this method of communication from the analyst's point of view is that competitors are not able to share the information. In general, the release of interim and preliminary results is likely to stimulate a number of telephone calls to the company from analysts. Gummer (1987, p.41) stipulates that the investor relations manager should brief company personnel on likely questions and answers. Companies can also use a telephone enquiry line service - either broadcasting a pre-recorded message or allowing two-way communication with enquirers. Apart from routine investor relations practice, contacts with analysts can occur in special situations such as a takeover bid. The City Panel on Takeovers and Mergers allows collective briefings of institutional investors provided the company's merchant banker is present. Ryder and Regester (1989, pp.88-89) consider that the investor relations officer plays a crucial role in these situations:

The Takeover Panel will be watching every move made by the companies on either side. Part of the role of the IR manager, therefore, is to take the offensive at internal meetings and question each tactic being considered during the battle. Will the moves under consideration be adjudged to be in the best interest of shareholders? Could there be a DTI inquiry after the battle is over, even if it has been successful? Will the company's actions be defensible as well as credible when being explained to analysts and the media?

To a large extent the IR manager's neck will be on the public and private chopping block if he fails to provide management with the best advice from an outsider's perspective. Part of his role, as we have already discussed, is to act as the company's antennae amongst the investment community as well as one of the company's principal mouthpieces to it.

The IR manager needs to be present at all investor meetings, whether large or small, because he can't take the risk of the CEO or CFO making statements which aren't being made to other investors. As well as that of protagonist, the IR manager must also be the co-ordinator of messages ensuring that no-one speaks with forked tongue, however inadvertently.

It is clear from the literature summarised in this section that the authors recognise and condone the practice of holding analysts' meetings and responding to telephone enquiries. The role of the investor relations function is to supervise and control these activities. The IR manager is required to maintain good relations with analysts whilst at the same time ensuring that they are not able to obtain price sensitive information that has not been generally released.

4.5 Identification of the population of investor relations personnel.

Crawford's Investment Research Index 1987/88 (Crawford's, 1987) published a list of investor relations officers in the top 500 companies by industry sector. The official responsible was named with his job title. These job titles include finance director, corporate affairs director, financial director, corporate executive public affairs, group public relations executive, group chief accountant, economic adviser, company secretary, chairman and managing director. From the job titles it would appear that investor relations is not a full time commitment for many of the executives concerned.

This directory ceased publication after the 1987/88 edition but the most of the information is still available in Crawford's Directory of City Connections.

4.6 Surveys of investor relations

The aim of this section is to review existing survey work on the subject of investor relations. There are two aspects to consider here, empirical studies carried out by academic researchers and surveys commissioned by companies to evaluate their own investor relations programmes.

Newman (1984, pp.238-240) carried out a company survey on the role and benefits of financial public relations. She carried out interviews with an unspecified number of major companies in 1982 and 1983. Her results are presented as a selection of thirteen different views on the nature of financial public relations. One example is as follows:

It helps create an accurate analysis of what the group is doing. It helps maintain goodwill in the investing communities. It possibly smooths share price fluctuations which arise from speculation and rumour. It may make it cheaper to raise money if people have confidence in the share price.

She then presents a selection of eight reported reasons for adopting financial PR. An example is as follows:

In the early 1970s we discovered we had a fuddy-duddy image in the City. For our development and diversification it became important to create the right image. We needed the help of the financial community to achieve our objectives in acquisitions and finance to support our expansion.

A more comprehensive survey was carried out by Taylor Nelson Research Ltd. (1989) for Equity International Magazine. This investigated attitudes to the investor relations industry. It claims to be the first research project in this particular field and seeks to provide an overview of investment managers' current attitudes towards investor relations officers and their work.

250 investment/fund managers were sent a questionnaire and 60 responses were achieved. The authors consider that the response rate

Table 4-2 Importance of information providers

	1st	2nd	3rd
	%	%	%
Senior Corporate Officers	60	38	2
Stockbrokers' Analysts	38	57	5
Investor Relations Officers	2	5	93

NOTE: There were 60 respondents out of 250 investment/fund managers circulated

Source: Taylor Nelson Research Ltd. (1989, p.6)

of 24% provides a large enough sample on which to base conclusions. They point out that the results are UK oriented since only two overseas fund managers responded.

The findings of the survey are very interesting due to the pioneering nature of the study. They will therefore be summarised in some detail in the following paragraphs.

Four-fifths of fund managers agreed with the statement that the appointment of an investor relations officer (IRO) sometimes improves contact with the company in question. 8% thought that it always did whereas 10% thought that it never did.

78% of respondents held the view that IROs sometimes provide information that is new or otherwise useful and the remaining 22% thought that IROs never provide such information. 60% of respondents felt that IROs never offer a good alternative to contact with finance directors or chief executive officers. 40% thought that IROs are sometimes a good alternative contact. 85% of respondents considered that IROs are not the primary contact for fund managers whereas only 15% thought that they were. It is evident that fund managers regard the Finance Director or Chief Executive Officer as being a more important contact than the IRO.

Only 33% of respondents felt that IROs are moderately important in determining their investment decisions. The remaining 67% regarded them as not at all important.

40% of respondents held the view that the appointment of an IRO sometimes affects the long term stock price. 3% felt that it always affects the price and 57% that it never affects the price.

Respondents were asked to rank different information providers. The results are shown in table 4-2. It can be seen that nearly all respondents put IROs third position behind the other two information providers, senior corporate officers and brokers' analysts.

Table 4-3 Type of meeting preferred with companies

	Domestic	Foreign
	%	%
Individual meetings	58	37
Small meetings	42	42
Roadshows	0	10
Not stated	-	12

NOTE: There were 60 respondents out of 250 investment/fund managers circulated

Source: Taylor Nelson Research Ltd. (1989, p.8)

Opinions were divided over whether more companies should appoint designated IROs. 55% thought not, whereas 40% thought that more companies should appoint IROs and 5% were undecided.

Fund managers were then asked who should sponsor company presentations. 68% preferred company stockbrokers. Independent agencies and industry groups were the next most popular sponsors with 8% in favour of each. Finally the company banker, the company PR agency and the company itself were each favoured by 3% of respondents.

63% of respondents were of the view that presentations are expected primarily to shed new light on published information. However, 32% expected presentations to give access to new information.

Fund managers were then asked for their preferred form of meeting with domestic and foreign companies. The results are shown in table 4-3. 65% of respondents found roadshows moderately valuable in making investment decisions, 28% found them not at all valuable and only 3% found them very valuable. It was found that the average number of roadshows attended in 1988 was 98, about half of these being for foreign companies. A significant number of fund managers were using roadshows extensively as part of their decision making process; however, the majority did not seem to be keen roadshow attendees. Only 7% of respondents accepted all their roadshow invitations with 25% accepting more than half and 28% less than half. 37% accepted very few invitations.

Respondents were asked to summarise in their own words the impact IROs have on investors' perceptions and assessments of company prospects. 18% of respondents felt they had very little impact on assessment of company prospects. 12% felt that a well informed IRO can have a very positive impact. 10% felt that IROs leave investors remote from management. No other areas received 10% or more mentions.

Taylor Nelson Ltd. (1989) came to the following conclusions:

It is evident that designated Investor Relations Officers have yet to make a significant impact on the relationships companies have

with institutional investors. Fund managers still regard Finance Directors and Chief Executive Officers as their primary contacts at a company, although an increasing number do concede that good IROs can have a very positive impact on investors' perceptions and assessments of a company's prospects.

The survey described above is of general interest to companies considering the effectiveness of an investor relations function. They may however wish to commission their own personal survey and a number of organisations offer this service.

Taylor Nelson Research Ltd. has a service called 'City Panel'. Companies can use this to evaluate their image and standing among key investment personnel. A typical City Panel survey consists of 100-200 interviews, usually carried out by telephone, lasting up to 15 minutes. The City Panel has an established membership of fund and investment managers and in addition Taylor Nelson uses a comprehensive sampling frame to target key sector analysts within stockbroking firms. Respondents also include City editors of national newspapers and finance directors of major companies. Obviously individual client surveys are confidential although individual market sector surveys are available on a multi-client basis.

Market Opinion and Research International (MORI) has been conducting research among institutional investors and investment analysts since 1970. Co-operative studies have been offered to clients for nine years. MORI has conducted two City surveys each year since 1986. On behalf of a wide range of companies MORI monitors the City's views in such areas as:

how well is your company known?

are opinions of your company favourable?

how are your communications with the City rated?

how well is your annual report regarded?

what is the City's assessment of your top management?

to what extent is your current share price seen as reflecting the company's worth and/or performance?

The total sample for the study includes a core of around 100 institutional investors, with sub-groups for each client of 15-20 investment analysts covering its sector. The basic cost of participating in the survey in 1989 was £8500 with extra charges for specific questions in addition to the core questions.

MORI's advertising brochure for this service lists 93 company clients who have participated in the 1982-1989 studies.

There are a number of organisations, such as Taylor Nelson Ltd. and MORI, that offer various surveys of City opinion. Crawford's Investment Research Index 1987/88 lists a total of six firms offering investor relations studies.

In concluding this section it can be said that investor relations appears to be an area that has not been subjected to intensive research by the academic community. This is partly explained by the fact that it is a fairly 'new' area. Commercial research organisations have clearly seen a market opportunity and can provide corporate clients with a measure of the success of their investor relations programme.

4.7 The London Stock Exchange Conference for Industry 1988

In October 1988 the London Stock Exchange (known at the time as the International Stock Exchange) held a conference entitled 'Working with Industry 1988'. This conference has two themes, 'Keeping the Market Informed' and 'Towards a Single European Market'. The first theme is concerned with investor relations and the conference proceedings (International Stock Exchange, 1989) provide an interesting insight into the views of industrialists and analysts. This section will

summarise the main themes and opinions that arose. Sir Francis Tombs, the Chairman of Rolls-Royce plc and former chairman of Turner & Newall plc spoke first on the subject of investor communications. He made a number of comments about his experiences at Rolls-Royce and continued with some general observations:

....companies share the general problem of reconciling the need for adequate communication with the investment community with the general duty of the directors to avoid selective release of price-sensitive information.

It is a difficult topic, which some companies have met by virtually suspending communication. Such a view, in my mind, is not in the interest of the company or of its investors. The essential point to be borne in mind is that all contact needs to be seen as a necessary part of communication and to be directed at a better understanding of the company's performance and objectives, in a way which is not itself price-sensitive, but contributes to a fuller understanding of the nature of the company's activities and its prospects. Analysts form an important link in the communication chain, as do financial journalists, but companies have to recognise that both groups deal with a wide range of different companies, and their task of differentiating particular issues relating to one company is extremely difficult. As a result, generalised perceptions sometimes dominate in a way which is unhelpful and unwelcome to a particular company....

So, I believe that company managements must spend a great deal of time in communicating with analysts, investors and the financial press. Familiarity with a company's problems and ambitions is a necessary requirement for informed comment and analysis, and will not come about without determined and continuous efforts. The occasional spectacle of companies faced with a hostile bid seeking to remedy years of neglect in investor relations in a few hectic weeks is not an edifying one.

Nor, in my view, is the use of public relations consultants adequate in itself. Investors in a company, and those who influence them, are entitled to contact with the company's management at the highest level, and to continuous interpretation of the company's performance and objectives. This is because there is really no substitute for the trust of each party in the other, the familiarity of analysts, investors and the press with a company and its objectives, and the resulting confidence which makes such good relations a matter of course.

Although the speaker stresses the importance of investor relations he makes no comment on organising the function within the company, merely stating that it is the job of management.

The next speaker, Sir Trevor Holdsworth, President of the Confederation of British Industry spoke about the advantages and disadvantages of a company going public. He expressed a rather negative view of the investor relations activity:

On the second issue - the costs of managing the market, of keeping the market informed - I think that this may be getting beyond reasonableness. There may in the past, have been some justification for the general criticism about communication from industry to the market, but I believe it is not now justified and may have gone too far for the good of the management of business. It is certainly very costly, both in money and time.

One is faced with a merry-go-round of presentations, discussions and lunches. As someone said to me recently, we seem to spend more time telling people what we are doing than actually doing it! We have to indulge in an embarrassing amount of market massaging. "Do not surprise the market," we are told, "or you will suffer the consequences." So there is a continuous drip-feed of coded information passed to the market.

A number of senior leaders are quite concerned about this - particularly having regard for the insider-dealing rules - and, of course, most of the time can be taken up talking, not to actual

shareholders, but to the middle men and the market makers. In contrast, may I say, when you do focus on talking directly to your owners, then it is very worthwhile indeed, and companies should really concentrate on that. Good communication, as has already been said, has to be two-way. It requires good listening. Quite frankly, I find many in industry often think that they are spending their time having a dialogue with the deaf and dumb. Managers seem always to be on the defensive. One rarely gets the feeling that the market cares about the health and welfare of industry.

Sir Trevor Holdsworth's views about investor relations are somewhat less enthusiastic than those of the previous speaker, Sir Francis Tombs.

A view from the other side of the relationship was provided by the next speaker, Paddy Linaker, Chairman of M&G Investment Management Ltd. and an investment manager of 30 years standing. He criticised the securities industry for continually trying to generate business and pressurising fund managers. He commented as follows:

But at M&G, especially these days, I like to see a lot of our investment managers out of the office, visiting companies and, therefore, away from the phone and the blandishments of brokers.

He also made a comment about the duties of the institutional investor as a shareholder:

Shareholders, as owners, have additional duties and responsibilities. They should be ready to supply additional funds to finance investment, where this can be justified, for future growth; they should be prepared to defend the company against unwelcome takeover bids; they need to assure themselves that the boards of directors are of suitable balance and quality and that the company has appropriate advisers for consultation. They do not tell management how to run their business. Nor do they seek short-term advantage through the acquisition of price-sensitive information. Shareholders are interested in discussing with

management subjects such as the objectives and philosophy of companies, whether growth is to be achieved by acquisition, the desirability or otherwise of diversification, dividend policy, the implications of Europe, etc. It is obviously a major responsibility of the institutional investor to express any concerns or dissatisfaction with management. Who else is to protect the interests of the small shareholders, or indeed, the employees? The conventional response of many institutions is to sell and walk away from the problem, and this cannot be in the general interest - the result of this process is all too often a takeover. I would prefer self-improvement to take place, without the expense and disruption of fiercely fought takeover bids.

Paddy Linaker's view is interesting in that he considers that institutions should take part in the investor relations activities of companies by entering into discussions which will benefit other investors in the company. This apparently altruistic view is in conflict with the pressure on fund managers to achieve high performance in the short term.

The final speaker was Jack Lavery, Senior Vice President of Merrill Lynch, who gave a speech entitled 'Corporate Communications with Analysts: USA experience'. This will be reviewed in the section dealing with investor relations in the USA.

The record of the discussion period that followed these speeches brought up the subject of the period before interim and final results are published. This is traditionally treated as a closed period for communicating with analysts due to the danger of releasing price sensitive information. Mr R J Gillum, Chairman of Blagden Industries plc asked the following question:

Mr Lavery made some observations about timing of communications with analysts, and I would like to ask the panel for their views on the situation where the chief executive of a company has developed a good rapport with key analysts following his company and who write pieces about it: and a week or so before he is due to publish his preliminary figures, his chum from the analysts'

rings up and says, "By the way Bill, I am updating my piece on you, and I am going to put you down as having made £31 million this year. You are just about to report. What can you tell me on this?" I do not mean to put this as a facetious point; I believe this is absolutely diabolical, and I would like the panel, particularly the investment side, to comment as to whether or not there should be some declared understanding, within the framework of good relations via the analysts' section, that a company must be left in peace in the run-up to publication of figures.

Mr Jack Lavery in response made the following comment:

My reference was to the timeliness of communication between companies and analysts. It is certainly important to get the message out upon the occurring of an event and not after a substantial lag, in the spirit of openness and candour, so that, in turn, the analyst can do an effective job evaluating that and servicing the investor audience. I think the danger that you advise in the question can exist, and I think the other side is the danger that if an analyst is surfacing with investment information, it would be grossly inaccurate or grossly misrepresent where a company is heading. I would never suggest any communication that revealed anything to an analyst that was not broadly disseminated. I agree that the concern you put in your question is a valid concern, and we try to harness our analysts to ensure that their assessments are based on fundamental perceptions of public information and not based on any kind of advance indication of any sort at any time from any company.

The question and answer above underline the major problem concerning investor relations with analysts. That is, the need to engage in meaningful, informative communication whilst at the same time not revealing price sensitive information.

In concluding this section a number of observations can be made. The fact that the London Stock Exchange saw fit to dedicate a conference to the subject of investor relations indicates the importance of this activity. The conference proceedings themselves provide some

interesting qualitative data. This data complements the quantitative findings of the Taylor Nelson survey discussed in the previous section. Reading the two in conjunction, it is clear that, like most management problems, investor relations cannot be defined by a set of basic rules or principles. There are a number of conflicting opinions and each organisation needs to formulate its own policies and procedures.

4.8 The Investor Relations Society

The growing importance of investor relations was reflected in 1980 by the formation of the Investor Relations Society. Members comprise senior executives with management responsibilities for investor relations, including specialists in public affairs, finance directors and company secretaries. The objectives of the society are as follows:

- to work for better communications between companies and investors

- to improve the techniques of investor relations

- to encourage high ethical and professional standards in investor relations

- to represent the views of members to Government, regulatory bodies and the investment community

- to provide a forum for members to exchange views and share experiences

The activities of the society include informal discussion meetings, the provision of training courses and an annual conference, social functions, publication of a newsletter and papers on current issues and techniques.

Membership is open to companies with more than 100 ordinary shareholders although professional practitioners who cannot satisfy the conditions for corporate membership may be admitted at the discretion of the committee. In 1990 the membership stood at 250 senior executives with management responsibility for investor relations from 177 UK publicly listed companies. In 1986 the membership was only 80, the increase shows clearly the growing importance of investor relations.

4.9 Investor Relations in the USA

Since the USA is widely considered to have the most highly developed stock markets in the world it is likely that investor relations will also be in a fairly advanced state. The aim of this section is to provide a brief indication of the state of the art in the USA, paying special attention to company communications with analysts.

Marcus (1983) has written a comprehensive text entitled 'Competing for capital in the '80s ', this is an updating of an earlier work published in 1975. He provides comprehensive instructions (pp.40-54) on the mechanics of dealing with the financial community under the following headings:

- Security analyst meetings

- Meeting with or talking to individual analysts

- Brokerage meetings

- Issuing a background report

- Preparing and distributing printed material, including annual and quarterly reports, for distribution to the financial community

- Regular and periodic mailing of information about the company to the financial community, including copies of press releases

The financial press

Corporate advertising and other promotional devices

Handling unsolicited enquiries.

Much of this text is devoted to practical problems such as the timing of the cocktail period before the lunch and the presentation. However the author also tackles more serious problems, such as the danger of responding to analysts' requests for earnings projections (pp.45-46):

There is one important point regarding all analyst meetings, and, in fact, any form of financial communication. Although it will be dealt with in greater detail in chapter four, the rules of disclosure of the SEC very clearly apply here. Any statement made in an analyst meeting, whether it be before one or many analysts, that is significant in judging the company and that has never been made before must be publicly released as quickly as possible. If management intends to make such a statement at a meeting, whether it be an earnings projection or a merger announcement or a major diversification plan, a release should be prepared well beforehand for public distribution at the time of the meeting. This is extremely important.

Marcus (1983, p.47) stresses that a properly run financial relations programme, whether performed internally, or with the aid of a financial relations agency, must include a concerted effort to hold and service a following of analysts. One aim of such a programme is to generate analysts' research reports.

Telephone inquiries from individual shareholders are considered to be as important as queries from analysts. Marcus (p.133) suggests that a written record of such communications should be kept to offset any questions about inside information. Letters should also be answered politely and promptly.

The author devotes a complete chapter (pp.209-219) to the organisational aspects of setting up the investor relations programme by the means of using internal personnel or external consultants.

In effect, there appear to be no striking differences between investor relations in the USA and the UK. As was noted at the beginning of this chapter, much of the UK literature consists of books aimed at management advising them on how to run an investor relations programme. Points raised in the UK texts are very similar to those covered by Marcus (1983).

A more recent view of the situation in the USA is provided by the proceedings of the London Stock Exchange Conference for Industry 1988 (International Stock Exchange, 1989). Jack Lavery, Senior Vice President of Merrill Lynch, gave a speech entitled 'Corporate communications with analysts: USA experience'. A selection of his comments will be reproduced below:

....clear and concise communication systems between companies and analysts, as well as between analysts and investors, are increasingly important. Unless a message is direct and understandable, it can be lost in today's noisy, complicated environment....

The analyst strives to develop good relations with the key management of the companies he follows, in an effort to gain a better understanding of the firm, its management, culture, organisation, goals and objectives....

Analysts need and want the company to help them understand the nuts and bolts of the industry. For newer analysts, that involves informing them about the factors that drive the business. In addition, analysts in the United States have found it useful to develop a wide network of industry contacts at all levels, not only at the highest levels of the Chief Executive Officer and Chief Financial Officer. These contacts are critically important sources of insight and general industry information.

The speaker summarised the Securities and Exchange Commission rules regarding information disclosure to analysts. He also pointed out that there are also rules concerning analysts' communications with investors. Analysts' reports must be reviewed by a brokerage firm's supervisory officer to ensure they conform to regulatory and internal standards.

He stressed that analysts now attend more road shows, client breakfasts, lunches, dinners and conferences than ever before. He considers that the focus of an analyst's work has changed in recent years:

Analysts of the 1970s who focused on producing accurate earnings estimates have been replaced by analysts of the 1980s and 1990s who calculate breakup values, examine off-balance sheet entities which might attract corporate raiders, and look for ways to spin off unwanted subsidiaries

The speaker is clearly of the opinion that companies should communicate with analysts as part of their investor relations activity. However, he makes no specific references to the role of a designated investor relations officer.

When a new profession develops it is normal for professional organisations to be set up by its practitioners. In the case of the USA there is a National Investor Relations Institute, based in Washington. This was founded in 1969 and had 2300 members by 1992. There are also a number of specialist journals dealing with the subject of investor relations. Marcus (1983, p.297) lists six such publications.

This section has provided a brief overview of the practice of investor relations in the USA. In conclusion, it can be said that the two countries show similarities with the situation in the USA being somewhat ahead of that in the UK.

4.10 Conclusions

This chapter has summarised the literature on investor relations. It has focussed on investor relations with brokers' analysts and fund manager analysts. It is clear that the area under study is in a state of change and some confusion. Although many companies have appointed investor relations officers to run their programmes the recipients of the information do not all view this as an improvement.

No matter how the investor relations programme is organised it is clear that companies cannot ignore the need to compete for capital in the market place. This means that communications with the City must be established and nurtured. Some companies view this as a positive activity whereas others resent the time and money involved.

The market research sector has responded to the increasing awareness of the importance of investor relations by offering tailored surveys to companies. Companies can therefore obtain some measure of the effectiveness of their investor relations programme.

The emergence of investor relations as a separate management discipline has been accompanied by the establishment of professional organisations and publications. In addition, existing organisations, such as the London Stock Exchange, have recognised the importance of the investor relations activity.

In conclusion, the growth of investor relations can be viewed as a response to the continuing increase in sophistication of the world's financial markets. In a complex financial environment increasingly sophisticated information is needed in order to make investment decisions. The role of investor relations is to complement and improve existing information flows.

This study has now investigated the legal and regulatory framework, the role of financial analysts and the literature on investor relations. The next chapter will look at the financial public relations consultancy sector.

Chapter 5 The Financial Public Relations Consultancy Sector

5.1 Introduction

In chapter four the role of the investor relations function within companies was investigated. It was established that companies can carry out their policies in-house or by purchasing the services of an external consultant. In many cases it seems that a mixture of internal and external expertise is employed. The aim of this chapter is to describe the role of consultants in the investor relations process.

5.2 Identification of the population of financial public relations consultancies

The aim of this section is to establish the size of the population of investor relations consultants. This will be done by reviewing entries in a number of directories.

The City Directory 1990 lists 122 London members of the Institute of Practitioners in Advertising who offer a financial advertising service. Financial advertising is not synonymous with financial public relations. However, many of these agencies will offer a financial PR service. The directory also lists 62 members of the Public Relations Consultants' Association who offer financial PR services. The Hambro Company Guide (1989) provides a listing of 120 financial PR advisers and their clients. The number of clients listed for each adviser ranges from 1 to 145.

Crawford's Investment Research Index 1987-88 (Crawford's, 1987) lists 60 financial public relations consultants with details of sector specialisms, if any, and comments from the firms themselves on the services they offer. An illustrative example is quoted below:

We are among the UK's largest independent financial PR consultancies. We provide a full range of business communications

Table 5-1 Services provided by financial PR agencies

Mechanical tasks
- distribution of press releases
- mailings to brokers
- arranging press conferences
- monitoring analysts' and journalists' specialisms
Additional tasks
- drafting press releases
- anticipate questions
Miscellaneous
- commissioning research projects
- establish corporate communications objectives
- strategic advisory and executive capacity

services for quoted and unquoted companies to ensure that our clients are known and understood by shareholders, investment analysts, local communities and employees. Our services include: City, trade, technical, consumer and overseas press relations; political lobbying; advertising; corporate identity and design; market research; and screen and video communications. We have affiliates in New York and Tokyo.

The figures quoted above give some idea of the size of the financial PR sector. Dark (1988) states that fee income from financial PR rose from £25m in 1986 to £40m in 1987.

It is clear from the above section that companies have a great deal of choice in selecting an external financial PR consultant.

5.3 Overview of the role of financial public relations consultancies

The aim of this section is to provide an overview of the role of external consultancies in execution of a company's investor relations programme.

In a historical review of the development of financial advertising agencies Newman (1984, p.214) notes that these agencies began to set up financial public relations agencies in the early 1960s. The agency provides the channel of communication from the company to City analysts, journalists and government departments. It also anticipates potential questions and their answers, coaches and grooms company representatives to display their best features (at press briefings, seminars, conferences, radio and television interviews), and prepares them for meetings with institutional investors.

Newman also notes that the first independent specialist financial public relations agency was formed in 1960. She provides (1984, pp.248-250) a brief description of the services provided by the financial PR agency and consultancy. This information is summarised in table 5-1.

Dark (1988) states that in the sixties and early seventies, financial PR firms were mainly carrying out routine press relations and tombstone advertising. Over the next decade the business assumed a new role as an arm of corporate finance, with a quasi-professional presence. There is currently a trend to offer a widening spread of services with increasing emphasis on investor relations as a wide programme centred on institutional shareholders.

He then provides a description of the type of person working in financial PR. Initially they were mainly ex-journalists, followed by a wave of recruits from the City. Recent entrants to the profession include highly qualified personnel from corporate finance, stockbroking and major City institutions.

Essentially it appears that the financial PR consultant offers the same services as an internal investor relations function. One problem that can occur arises from the fact that an external consultant may not have sufficient access to company personnel. McLaughlin (1988) considers that PR consultants can be seriously handicapped by lack of management effort or understanding on the client's part. She considers that companies need to take their PR consultants fully into their confidence right from the first briefing. Yet there are companies which persist in keeping their consultancies at arm's length, not giving them all the facts they need. She considers that a consultancy needs ready access to senior management on a day to day basis. Contact with the in-house PR manager is not sufficient to provide a broad perspective on the firm.

Dewe (1985) considers that financial PR agencies provide staff who are numerate, financially aware, literate and well connected with the financial community. This permits an agency to offer a full range of corporate services in one package with the added bonus that the client is getting independent advice. He considers that for this reason many major companies who have perfectly competent internal PR departments use outside consultants for advice as well as distribution. Internal and external advisers usually work together quite happily without any conflict, the reason for this being that there is plenty of work for them both.

Marcus (1981, pp.212-213) provides a list of the possible advantages of using an external consultant. These include the benefits of specialisation, the organisational abilities of the consultancy firm, constant liaison with the financial community, experience of serving many companies, objectivity and knowledge of all relevant regulations. In addition it may be more economical to use an external consultant.

One possible disadvantage is that an external consultant may be serving the company's competitors. If investor relations can be fairly described as competing for capital then there may be conflicts of interest arising for the external consultant.

Hayes (1989, p.149) considers that the combined resources of both the outside consultant and the in-house team are usually necessary to execute the investor relations function. He recommends that companies set up an investor relations committee. There may be tension between the in-house staff and the consultant if the consultant appears to lack day to day involvement and receives the more prestigious assignments.

This section has made it clear that companies have a choice in setting up their investor relations programme. Services may easily be bought in from external financial PR consultants or provided in-house.

5.4 The external financial PR consultant and the investment analyst

The preceding section noted that external financial PR consultants may be involved in the company's communications with investment analysts. This section will consider whether this presents any special problems or provides any advantages when compared to purely internal investor relations programmes.

Dark (1988) outlines one particular area of concern when he notes that financial consultancies are not subject to any form of regulation, despite the often highly sensitive nature of the information they handle. However, he notes that it is not in the long term interests

of a consultancy to gain a reputation for leaking price-sensitive information. He considers that leaks do happen and reports that allegations of dubious practices have been made.

Companies could experience similar problems emanating from their own internal investor relations personnel. In both cases the company can operate the sanction of dismissal if a breach of confidence is proven. There is also the deterrent effect of a possible criminal prosecution under the provisions of the Company Securities (Insider Dealing) Act 1985.

Hollis (1989) considers the role of financial public relations advisers in the current regulatory environment. They should be aware of the laws, regulations and codes of conduct affecting their employers or clients and be prepared to advise on their application. In the financial field the public relations adviser's role may be subsidiary to those of the legal and financial advisers. In this author's view then, both internal employees and external consultants bear a similar burden in coping with the regulatory environment surrounding communications by the company.

One aspect of the adviser's role is to represent the views of the outside world to his principal. This involves monitoring and reporting back opinion. The adviser must be ready to stand up for what he knows to be right and be prepared to deliver an unpopular message. Hollis considers that this is a role which an external consultancy may be better fitted to play than the in-house executive.

It is clear from this section that the roles of the external consultant and the internal investor relations staff in communicating with the financial community are essentially similar.

5.5 The Institute of Public Relations - City and Financial Group

The City and Financial Group of the Institute of Public Relations convened a working party on the conduct of financial communications in

February 1989. This section will review the findings of the interim report presented by the committee in April 1990 (Institute of Public Relations, 1990).

The working party comprised members of the City and Financial Group and representatives of the Public Relations Consultants' Association and the Investor Relations Society. Evidence was taken from, inter alia, representatives of the Bank of England, the Department of Trade and Industry, the International Stock Exchange Quotations Department, the Panel on Takeovers and Mergers and the International Stock Exchange Listed Companies Advisory Committee.

The working party considered the desirability of preparing a code of conduct governing the conduct of financial communications. They decided that, in view of the existing extensive framework of statutory and regulatory provisions, any such code would merely be a compendium that would need regular revision as rules changed. A new free-standing code of conduct was not considered desirable. It was suggested that a compendium of regulations, regularly updated, might be prepared as an aid to practitioners.

They considered it essential that those who practice in the field are fully familiar with all the relevant regulations and persuade their clients or employers to observe them.

The working party was given very little evidence of consistent abuse by companies or their financial communications advisers. The main problem seemed to be selective briefing of individual journalists in order to gain favourable media coverage. It was felt that abuses should be pursued more vigorously by the DTI, the Takeover Panel and the Stock Exchange.

It was noted that members of the three main bodies represented on the working party have no monopoly of the practice of financial communications, nor are they recognised as having any particular status in the field. Also there is no legal requirement for companies to employ financial communications practitioners. The job is often carried out by directors or senior executives.

The working party reviewed the existing legal and regulatory framework concerning financial communications and identified certain areas where existing or impending regulations appeared to be unsatisfactory.

It was noted that no provision is made under the Financial Services Act (1985) or under the rules of the Securities and Investments Board or any Self Regulating Organisation to bring financial public relations or investor relations practitioners within the regulatory framework.

In the case of the Code of the Panel on Takeovers and Mergers, Note 7 to Rule 19 makes the financial advisers responsible for guiding their clients and any relevant public relations advisers with regard to any information released to the media. This is the only reference in the Code to public relations advisers.

The Panel hold directors and their financial advisers responsible for the accuracy and veracity of all statements. The working party considers that the financial public relations adviser must limit his role to communicating official statements, arranging contacts with officially recognised spokesmen and efficient planning and organisation of communication.

During takeovers public relations advisers will inevitably become insiders, and abuse of this position for personal gain will render them liable to criminal prosecution for insider trading.

The continuing obligations of listed companies are contained in the Yellow Book published by the International Stock Exchange. The company is responsible for compliance and external financial relations advisers are in no way responsible to the Stock Exchange.

The Stock Exchange treats the company as the final arbiter as to what is price-sensitive information although a non exhaustive list of specific price-sensitive items is provided. The working party made the following comment:

Cases could arise where an item of news might not be regarded as intrinsically price-sensitive but becomes so because of the very manner in which the company chooses to announce it by, for example, calling a formal analysts' meeting to explain it.

In respect of regulations promulgated by professional organisations the working party presented a summary of relevant points. The Institute of Public Relations has a code of conduct containing a relevant clause (14): a member shall when working in association with other professionals, respect the codes of those other professions and shall not knowingly be party to any breach of such codes.

There is, however, no code of conduct relating to the special field of financial or investor relations to supplement the general code.

The Public Relations Consultants' Association has a similar clause in its code of conduct but in addition it imposes the obligation of identifying as well as respecting the codes of other professions.

The Investor Relations Society has no code of conduct but provides a manual of practice guide-lines which are more precisely directed towards the area of financial communications than the codes of the other two bodies.

The working party considered that few of the statutes or regulations bore directly on financial communications practitioners as such but that they did affect their activities by prescribing what may or may not be done by their employers, or in the name of those employers.

In the specific case of financial communications with analysts, the working party noted the following:

It is commonplace to monitor publications by analysts commenting on a company's prospects and giving forecasts. The Stock Exchange deprecates, however, any attempt to give guidance to analysts, even obliquely, on a confidential basis except that it accepts that a company is entitled to ask for a correction of an error

regarding any historic information which has already been the subject of a public announcement.

In practice, companies find that hell has no fury like an analyst who has been shown to be seriously adrift in his or her forecasts and that this is equally true whether they have been foolishly optimistic or foolishly pessimistic. Companies therefore find it desirable to avoid this situation arising and guidance is frequently given, albeit in coded form.

This opinion about the real nature of company analyst communications corresponds with many other similar opinions quoted elsewhere in this study. On the subject of meetings with analysts the working party makes the following comments:

Companies wishing to be known and understood in the market customarily hold briefings for analysts and for the financial press when announcing results, interim or preliminary. Sometimes these are used as an opportunity to interpret the published figures by, for example, giving a sectoral breakdown of published profits when this is not available in the printed document.

In the Stock Exchange's view this practice is wrong. They do not object to directors or other spokesmen setting the company's figures in the economic context or that of the general market for its product but they consider that if an analysis by product or by geographical area is available for discussion it should also be available for publication.

This comment is rather surprising. If it is indeed true that companies provide additional segmental information at analysts' meetings they would appear to be in breach of the listing agreement. Most commentators would agree that segmental information is potentially price sensitive since empirical studies indicate that it can provide superior forecasts to aggregated information. (Roberts and Gray (1988b) provide a summary of this evidence.)

The interim report of the working party was followed up by a final report in February 1991 (Institute of Public Relations, 1991).

The final report reiterated the main contents and conclusions of the interim report whilst considering comments and further research carried out in the intervening period. The working party recommended establishment of a permanent joint committee for financial communications practice and the preparation of a compendium of regulations.

This section has summarised the views on financial communications expressed by the professional bodies established by the public relations industry. These views include specific comments on communications between companies and investment analysts. Such communications are frequently effected by an investor relations practitioner who may be an external consultant or an in-house employee.

The public relations profession is not alone in having a current interest in this area. Concern has been expressed by the Bank of England, the London Stock Exchange, the Department of Trade and Industry and other interested parties. Evidence of this widespread concern is presented elsewhere in the study.

5.6 Conclusions

This chapter has demonstrated that external financial public relations consultants may be involved when companies communicate with investment analysts. The overall aim of this study is to investigate information flows between companies and analysts and to establish whether or not additional information is provided.

The existence of an external third party adds an additional route for the flow of information. Information may flow direct from company personnel to analysts or via the external consultant. Conversely,

feedback and enquiries from analysts may be directed at in-house officials or to the external consultant.

The external consultant is unlikely to be involved with the day to day activities of the company and hence his knowledge needs to be updated by periodic briefings. The company will need to communicate price-sensitive information to the external consultant from time to time and this can lead to a risk of inappropriate disclosure. Of course, companies regularly disclose information to their auditors and other professional advisers without fear of misuse. The problem in this case is that financial public relations is not a legally regulated profession. The professional bodies that do exist have no monopoly over practitioners and their codes of conduct cannot be universally enforced.

This study has now considered the legal and regulatory framework, financial analysts, investor relations and financial public relations literature. The next chapter will review the accounting and finance literature that is relevant to company communications with analysts and fund managers.

Chapter 6 Review of Literature relevant to Communications between Companies and Financial Analysts

6.1 Introduction

The aim of this chapter is to describe and review previous accounting and finance based literature and research work specifically relevant to informal disclosures of information by companies to the investment analyst group. These informal contacts include company visits, answering telephone enquiries, meetings with a number of analysts and commenting on analysts' research reports prior to publication.

Firstly, the subject of information disclosure will be discussed briefly, introducing the economic perspective on the problem. Then a review will be made of four surveys of the work of financial analysts. These surveys are of direct relevance to the current study because they include data regarding company contacts with analysts.

Subsequently a review will be made of other relevant literature that makes reference to the subject under investigation. Finally some conclusions will be drawn and the implications for the current study considered.

6.2 Information disclosure in general and specifically related to disclosures by companies to analysts

Information is disclosed by companies as a result of legal or regulatory requirements or the disclosure can be voluntary. In general, there will be costs and benefits attaching to all information disclosures. The company itself and the various user groups will bear the costs and reap the benefits in unequal proportions. As Gray and Roberts (1989) have pointed out, corporate perceptions of the costs and benefits can influence the extent of voluntary disclosure.

As a simple example consider the case of a company that arranges a brokers' lunch to announce a re-organisation of its management and

operating divisions. A simultaneous announcement outlining the scheme is made to the stock exchange. The company incurs the costs of the meeting and also the disadvantage that competitors now know of its plans. The company benefits since the meeting helps in maintaining good relationships with the analysts. Also, the disclosure will assist the market in correct valuation of its shares and this may be considered desirable by the company. The market benefits because the new information can immediately be reflected in the share price. The analysts incur the time costs of attending the meeting but they may benefit from receiving more detail than that contained in the official announcement. This extra detail could then be used to make superior predictions and enhance the analysts' reputations.

In practice there will always be information asymmetry. It is not possible to convey to the market all the information about a company. If this were possible the market would exhibit strong form efficiency which has been reported on by Keane (1983, p.10) as follows:

The market is efficient in the strong sense if share prices fully reflect not only published information but all relevant information including data not yet publicly available. If the markets were strongly efficient, therefore, even an insider would not be able to profit from his privileged position.

Analysis of the economics of information disclosure has led academics to study the market for company information.

Bromwich (1985) has specifically considered the case of analysts having access to inside information in the context of the market for information. He states (p.63):

Those with needs unsatisfied by conventional published statements which they are not willing to back by money cannot expect to cause resources to be directed towards the provision of their information requirements. A number of people such as investment analysts claim to be able to obtain access to non-public information. They also claim that they obtain additional insights from publicly available information because of their superior

analytical techniques. Such individuals contribute to economic efficiency insofar as these claims to have superior ability are justified. However, where they do have access to non-public data such a provision may reflect their superior bargaining power relative to the general user of accounting information. The explicit or implicit price for accounting information which emerges from these activities may, therefore, neither reflect society's preferences for accounting information nor the opportunity cost of its provision. Given the relatively small numbers of individuals who have access to such non-public information, it is likely that they will have some monopoly power and, therefore, will not provide the information to all those willing to pay the incremental cost of their demands. Moreover, it is likely that any financial data given by enterprises to favoured individuals such as investment analysts, will minimise that information which reflects badly on those in power in the enterprise. This suggests that the special information opportunities of 'city experts' cannot be relied upon to satisfy all demands for information. The question remains, therefore, why a more comprehensive market for accounting information has not appeared.

Bromwich makes no reference to the legal and regulatory framework that has been set in place to prevent investment analysts from obtaining and using inside information. His comments rather reflect the fairly widespread view that analysts do have and use inside information.

In concluding this section, it can be said that the specific problem of company disclosure to analysts can be considered in the context of the market for information. An information economics perspective on the problem would employ agency theory and game theory to construct a model including information asymmetry. However, it is not proposed in this study to continue along that line. The foregoing remarks merely serve to outline how positive economic theory could be applied to the problem.

6.3 Surveys of analysts' research activity

Several surveys over the years have looked specifically at company communications with analysts as part of a larger study of analysts' research activity. The first, by Lee and Tweedie (1981) was followed by Arnold and Moizer (1984), Day (1986) and Hirst (1988).

A brief description of the overall aims and objectives of these surveys will then be followed by a detailed discussion of the results obtained in investigating informal disclosures to analysts.

Lee and Tweedie (1981) carried out a research study entitled 'The Institutional Investor and Financial information'. The main thrust of this study was to assess the use made of published financial information and the analysts' understanding of this information. Respondents were selected from financial institutions and stockbroking firms. In most cases there were two respondents from each organisation. In the financial institutions, a senior investment manager and senior investment analyst and in the stockbroking firms two senior analysts or partners. It was intended that interviewees should be concerned primarily either with portfolio selection or with the analysis of the financial position and progress of individual companies. Interviews were carried out in 1977 using a questionnaire as a basis for the interview.

Arnold and Moizer (1984) carried out a survey of the methods used by UK investment analysts to appraise investments in ordinary shares. This work was originally the basis of a master's degree by Moizer (1982). Moizer and Arnold (1984) then re-analysed their findings in order to compare the methods of portfolio and non-portfolio managers. Their work was undertaken between 1978 and 1981. Unstructured interviews were held with between one and three investment analysts in six firms. (Four stockbrokers, one insurance company and one clearing bank.) A postal questionnaire was then drafted, piloted and finalised. The sample was selected from UK members of the Society of Investment Analysts and non-members working for large UK stockbroking firms. Not all the selected sample were involved in analysis of UK

Figure 6-1 Respondent's views on the extent to which visits are made by members of their organisation to companies in which it has invested (or intends to invest)

COMPANIES VISITED	FREQUENCY OF VISITS	%
Selected companies	Infrequently	43
Selected companies	Frequently	27
All companies	Frequently	21
None		6
All companies	Infrequently	3
		100
n = 229		

Source: Lee and Tweedie (1981, p.105)

equities and a response from 202 suitably employed analysts was obtained.

In addition to the United Kingdom survey, Arnold, Moizer and Noreen (1984) carried out a comparative survey of United States investment analysts. 102 responses from US equity analysts were obtained.

The findings of these three surveys that are specifically relevant to informal contacts between companies and investment analysts will now be considered.

Chapter ten of Lee and Tweedie's book deals specifically with the subject of company visits. They make the following comment (p.104) :

This source of information is quite distinct from the other sources. Any information obtained during a visit to a company may well be unique in the sense that it may not be shared by other investors (both existing and potential), whereas published sources provide knowledge for all users. Consequently, company visits would seem at first sight to be an extremely useful means of obtaining information in advance of other investors.

Firstly, Lee and Tweedie, established the frequency of company visits by organisations. The question asked to what extent are visits made by your organisation to companies in which it has invested (or is about to invest). Respondents were required to indicate whether visits were made in every case, only in selected cases, or not at all. Where visits were made they were asked to specify whether they were frequent or infrequent. The results are summarised in figure 6-1.

The data was analysed in terms of the analysts' employing organisations and it was found that institutions visited companies relatively rarely whereas stockbroking firms visited more as a matter of course. The authors noted that financial institutions give a high rating to stockbrokers' reports as a source of information and these could be used as a substitute for company visits. This comment should be qualified by the fact that the information in a broker's report will not be as fresh as that obtained by a first hand visit.

Figure 6-2 How often a company's financial performance was discussed with its management

	Portfolio managers	Information intermediaries
	%	%
Never	12.0	6.4
Less than once a year	28.3	7.3
Once a year	31.5	11.9
Twice a year	17.4	24.8
Three times a year	3.2	14.7
More than three times a year	7.6	34.9
n = 202	n = 92	n = 110

Source: Moizer and Arnold (1984, p.347)

Arnold and Moizer (1984) obtained responses from 202 UK equity analysts working for stockbrokers and financial institutions. They found that most analysts discuss a company's financial performance with management at least once or twice a year and over 20% have discussions more than three times a year. Moizer, Arnold and Noreen (1984) found that this result also applied in the United States. When respondents were classified as information intermediaries or portfolio managers it was found that 53.3% of information intermediaries and only 9.0% of portfolio managers always consulted company management when making an appraisal of a company. The overall findings are displayed in figure 6-2.

Lee and Tweedie's research refers specifically to company visits whereas Arnold and Moizer's relates more generally to discussions with management which could occur over the telephone. Respondents were asked for their views on the reasons for company visits by Lee and Tweedie. The main reason was found to be to assess the company's management. The results are shown in figure 6-3.

Arnold and Moizer (1984) were more specific in their question, asking what information was actually provided by company management. The results are shown in figure 6-4. In addition to the seven items of information in the table other items mentioned were data on costs and margins (6 respondents), the outlook of demand for the company's products (5 respondents), the current labour situation (4 respondents), the effects of the general economic climate (4 respondents), plans for future capital investment (3 respondents) and information on competitors (3 respondents).

Moizer and Arnold (1984) checked to see if there were any significant differences between information intermediaries and portfolio managers in respect of the seven items of information in figure 6-4. The only significant difference was found to be reasons for balance sheet changes. 45.5% of information intermediaries almost always received this information whereas only 21.1% of portfolio managers did.

Moizer, Arnold and Noreen (1984) checked to see if there were any significant differences between the US and the UK in respect of figure

Figure 6-3 Respondents' views on the reasons for company visits

	%
To assess the company's management	56
To obtain background information about the company	48
To assess the company's future prospects	35
To monitor the company's progress	19
To maintain good relations with the company	18
To learn about new projects initiated by the company	12
To increase understanding of the company's products or markets	11
To discover the answer to a specific problem in assessing the company	7
n = 229	

Source: Lee and Tweedie (1981, p.107)

6-4. They found only one significant difference, in that management comments on analyst's own forecasts were provided more often in the US. (In 64.7% of cases compared to 49.2% of cases.)

Many respondents wrote comments on this section which was the most contentious part of Arnold and Moizer's questionnaire. Some of the analysts appeared to be fairly sceptical about management opinions.

The following comments were made:

Management tend to have an inflated view of their equity and do not understand the discounting mechanisms of the market. They are often good negative indicators of events!

Some managements, particularly at or near the year end are anxious to 'steer' an analyst towards a consensus (usually 5-10% below the expected out turn); others are quite indifferent to any possible random shocks in their share prices

Lee and Tweedie (1981) established the perceived importance of company visits compared to formal published accounting information and other information. They found that company visits were considered, as an overall source of information for investment decision making, to be of least influence, although the source was still rated as being of considerable to moderate importance. The results are shown in figure 6-5.

When the results were analysed in terms of the respondents' employing organisations it was found that a greater emphasis was placed on company visits by those employed in stockbroking firms. This result is displayed in figure 6-6.

Arnold and Moizer (1984) carried out a similar assessment of the importance of various sources of information to analysts. They make the following comment :

We became aware of the perceived influence of discussions with company personnel during the interview stage of the survey. Their

Figure 6-4 Frequency of provision of information by company management in discussions with analysts

	%
Details of changes in product ranges	67.2
Details of research and development projects	56.8
Long term objectives and plans	78.4
Changes in key personnel	62.6
Reasons for past trading performance	87.8
Reasons for balance sheet changes	77.9
Management comment on analyst's own forecasts	49.2
n = 202	

Source: Arnold and Moizer (1984, p.204)

high importance is particularly impressive because, as a source of information, they are less readily available and, in consequence, more costly than the annual accounts. Furthermore, the actual influence of the discussions may be higher than reported.

Respondents might have understated their importance for fear that disclosure of the true importance could result in suspicions of 'inside information' being used with a consequent increase in the probability of such use being effectively controlled

Their overall findings are displayed in figure 6-7. These include a comparison of their results with Lee and Tweedie's findings.

Moizer, Arnold and Noreen (1984) note that the mean response in the US is not significantly different from the UK in respect of the influence of company personnel as an information source although the ranking is 6 in the US compared to 4 in the UK.

Lee and Tweedie recognised the fact that information on a particular topic can be obtained from a number of sources. Having established five items of information that appeared to be most frequently desired by the respondent's organisations they then established what sources were used to obtain this information. Their results are displayed in figure 6-8.

It appears from figure 6-8 that no respondents thought that their organisations sought information on profitability, financial status or dividends during company visits. In the case of future prospects the majority of respondents said that their organisations used two sources of information whilst 16% of respondents stated that company visits were the sole source of such information. In the case of general information about a company, 43% stated that company visits were the sole source of information.

Where more than one source of information is used it can lead to duplication of information received or to receipt of additional information. Information about future prospects of a company could consist of a vaguely optimistic statement in the Chairman's report or

Figure 6-5 Survey respondents' views on the degree of influence of the major sources of information about companies on their organisation's investment decisions

SOURCE OF INFORMATION	MEAN	STANDARD DEVIATION
Formal published accounting information from companies	1.61	0.75
Other sources of information about companies and their industries	1.89	0.76
Company visits	2.17	1.19
n = 216		

NOTE:
Ranking scale used, 1 = maximum influence, 2 = considerable influence, 3 = moderate influence

Source: Lee and Tweedie (1981, p.108)

detailed profit forecasts revealed to an analyst during a company visit. General information about a company is contained in annual reports and yet respondents appeared not to use this source of information. The question then arises as to what sort of general information is gathered in company visits. Since respondents' most popular reasons for company visits were to assess management (56%) and to obtain background information (48%) it would appear that general information encompasses whatever analysts can persuade company management to divulge.

Lee and Tweedie comment that since profitability, financial status and dividend information can be derived from statutorily prescribed public information it is reasonable to expect analysts to obtain it primarily from these sources. Future prospects and general information are not compulsory insertions in company accounts and analysts therefore seek elsewhere for this knowledge. At this point Lee and Tweedie (p.116) acknowledge the problem arising from company visits:

The Companies Act 1980 may well curb the practice of seeking information on the future prospects of a company during visits to companies - information which can obviously be of a price sensitive nature. The Act prohibits an insider knowingly in possession of unpublished price-sensitive information from dealing or consulting another person to deal in the company's securities or even communicating that information to another person if he has reasonable cause to believe that he would make use of that information.

Day (1986) carried out a study of the use of annual reports by UK investment analysts. The main project was to assess the usefulness of current cost accounting information to investment analysts but additional data was collected of a more general nature. This encompassed the usefulness of all information in the annual report, views about possible improvements and the forecasting process used by analysts.

A selection of analysts were asked to perform a review of accounts and to think aloud so that a tape recording could be made. This

Figure 6-6 Influence of the major sources of information on organisations' investment decisions about companies analysed by type of employing organisation

SOURCE OF INFORMATION	STOCKBROKING FIRMS MEAN	FINANCIAL INSTITUTIONS MEAN
Formal published accounting information from companies	1.54	1.66
Company visits	1.77	2.45
Other sources about companies and their industries	1.99	1.82
	n = 90	n = 126

NOTE:

Ranking scale used, 1 = maximum influence, 2 = considerable influence, 3 = moderate influence

Source: Lee and Tweedie (1981, p.110)

methodology is generally referred to as protocol analysis. At the end of the initial analysis a questioning stage was initiated by the researcher to elaborate upon interesting points, clear up areas of doubt and ensure complete coverage of all areas. The data was analysed using the technique of content analysis. Two medium-sized listed companies were selected and their accounts were allocated to interviewees on a random basis. Eighteen firms of stockbrokers were contacted covering most large City firms, some small ones and one Birmingham based firm. Fifteen firms took part in the study. Within this sample it was discovered that 9 analysts were already following the company selected whereas 6 were not. As a result it was decided to split the results according to whether the analysts were specialists or non-specialists in the company.

Day's espousal of a somewhat phenomenological approach to her research contrasts with Lee and Tweedie and Arnold and Moizer whose surveys made use of a positivist methodology.

Day (1986) did not specifically set out to survey details relating to informal communications between companies and analysts although her research did reveal the existence of such communications. When the fifteen selected analysts were asked to perform their standard initial review of a set of accounts two non-specialists emphasised that their main initial purpose was to produce a review document, which would be sent to the company for the management's comments. Day does not reveal whether the analysts were expecting written comments from the company. Also, at the evaluation stage three analysts stated that company contact was a source of information for forecasting. Following the evaluation stage, Day reports that at the questioning stage the importance of company contact as a source of information was emphasised. She omits to say whether the original three analysts were repeating themselves here or whether more analysts from the sample concurred with this view after questioning. With regard to the analysts Day comments:

They tended to feel that there was no substitute for experience of a particular company, especially the close contact with management that takes many years to build up.

Figure 6-7 Influence of various information sources
(5 point scale: 1 = vital influence to 5 = no influence)

	Mean Response	Standard Error	Rank	Lee and Tweedie Rank
Company's annual report				
Chairman's statement	2.32	0.06	6	4
Directors' report	2.63	0.07	8	9
Balance Sheet	1.68	0.05	2	1=
Profit and loss account	1.66	0.05	1	1=
Source and application of funds	2.20	0.07	5	7
Current cost data	2.88	0.08	10	10
Value added statement	3.40	0.08	15	-
Unqualified audit report	3.95	0.09	17	-
Qualified audit report	2.49	0.09	7	-
Quarterly and half yearly results	1.91	0.06	3	3
Employee newsletters	3.90	0.06	16	11
Government Industry statistics	3.23	0.07	13	-
Statistical and information services	2.90	0.08	11	8
Financial press	2.81	0.06	9	6
Trade journals	3.26	0.07	14	-
Companies house	3.98	0.07	18	-
Company personnel	2.09	0.08	4	5
Other investment analysts	3.21	0.08	12	-

Source: Arnold and Moizer (1984, p.203)

Day comments further that statistically valid inferences cannot be drawn from the results due to the small size and non random nature of the sample. The study therefore provides only an indication of the attitudes and requirements of investment analysts as a group.

Hirst (1988) carried out an empirical study to investigate the relationship between stockbrokers' research and share marketability. Thirty one stockbroking firms were surveyed and these included virtually all the leading institutional stockbrokers. There were 146 equity shares in the survey and these were in companies with a market capitalisation between £20 and £50 million. This size band corresponds roughly to the lower limit for interest by institutional shareholders at the time (1983).

In order to measure the amount of research carried out, analysts were asked inter alia about contact between their firm and the company in the form of telephone calls, outside visits to meet management, or visits by management to the brokers (usually for brokers' lunches). This gave a measure of research by hours of contact per year. Other measures of research calculated were the amount of time spent by the analyst on the company, the amount of written output and the number of analysts following a particular company. Analysts were also asked why they followed a particular company and 20.4% gave as one possible explanation the existence of particularly close contact with management. They were also asked how they rated the company's attitude to investment analysts. Responses were on a five point scale from uncooperative (1) to enthusiastic and open (5). The mean score was 3.60 with a standard deviation of 1.10.

Regression analysis was carried out to see if the amount of research was explained by the co-operativeness of the company, the market capitalisation, the annual turnover in value terms (aggregate of bought and sold bargains) and the number of bargains. It was found that the explanatory power of the regression equations was low. However it was noted that the inclusion of the co-operativeness variable did raise the value of R-squared. The contact measure of research is the one best explained by the regression model. A company's co-operativeness score was not related to the number of

Figure 6-8 Major sources of particular items of information

SOURCE OF RESPONDENT'S ORGANISATION'S INFORMATION				
INFORMATION	Formal published information from companies (annual & interim reports)	Other sources of information about companies and their industries	Company visits	Information sought from at least one of the three sources
	%	%	%	%
Profitability or earnings of a company	55	27	-	63
Future prospects of a company (including information on major new projects and developments)	47	29	38	73
Financial status, solvency or liquidity of a company	53	8	-	56
General information about a company	-	9	48	52
Dividend information about a company	7	4	-	10
n = 229				

Source: Lee and Tweedie (1981, p.114)

brokers following it. It did not follow that because a company co-operated closely with one broker that it would offer similar co-operation to others.

Hirst (1988) attempts to explain why research resources did not appear to be allocated according to the ability to earn commissions. He comments as follows (p.10):

It may be a mistake to think of stockbroking firms deciding to allocate their research resources. It may be more accurate to think of them responding to opportunities provided by companies. It was clear from discussions with analysts while completing the questionnaire that co-operation from companies is extremely useful when producing research reports. The final written product is often cleared with the company concerned. It is a serious event if a company takes exception to something the broker writes, says or does and withdraws co-operation as a result. Brokers may respond, promiscuously, to any companies willing to co-operate in the research process, and the confusing pattern of company-broker links may reflect this.

The main hypothesis to be tested by the project was to see if stockbrokers' research benefits marketability. It was found that the contact measure of research appears more significant than the other measures of written output and resources employed. A significant relationship was found between analysts' contact with companies and average opening quotation size. It was also found that the shares of companies whose managements tend to be open and enthusiastic in talking to companies (rather than unco-operative) tend to be more marketable.

Hirst (1988) makes the following comment in respect of this finding (p.20):

This may be a direct effect in that open management will tend to reduce information disparities. It may, however, reflect more than different management styles. Companies in financial difficulty are likely to be subject to considerable information

disparities, and their managements will be unable to speak freely. In either case, the evidence seems to support the view that an open relationship between management and analysts supports marketability.

Hirst's work is of direct relevance to this study in that it establishes and quantifies the existence of informal contacts between companies and investment analysts. It investigates the relationship between companies and analysts and considers the importance of company co-operativeness. The paper however makes no reference to the problems of insider dealing legislation and does not attempt to investigate the content of information disclosures.

The aim of this section has been to select and comment on relevant material from the results of several major surveys into the work of investment analysts. In conclusion it can be said that informal company contacts with analysts do exist, they are viewed as important and the contents of the communications are useful to analysts. Some of the information is duplicated elsewhere in publicly available form but extra information is also obtained by analysts. Some of this information is impressionistic and may have no price-sensitive content in the strict legal sense. It is clear from certain findings of the surveys and from comments of the researchers that there is a possibility that price-sensitive information is communicated to analysts by companies.

6.4 Other research findings

This section will review a selection of research that has made reference to company contacts with analysts.

Gniewosz (1990) carried out a case study of the share investment decision process at an Australian institutional investor. Data was collected by direct observation of activities and other methods. He noted that analysts made company visits and telephone calls to companies in their search for information. One function of the annual

report was to act as a stimulus in identifying questions to ask the company. The questions might be a request for more detail eg sources of total revenue, reasons for particular segment contributions. He concluded that a major source of 'actively sought' information is the company itself. Apart from open forum meetings, such as stockbrokers' luncheons, individual contacts with the company were used by analysts. Information which was considered to have a competitive investment advantage was sought by analysts in private meetings. Gniewosz points out that analysts were acutely aware of the need not to fall foul of insider-information/trading legislation.

He categorised information gathering company visits into three major types, the familiarisation stage, update visits and those made to gain an understanding of a specific problem. He noted that company visits in the first two categories tended to be scheduled for the time of year when relatively few annual reports are received.

This piece of case study research confirms the picture obtained from the survey work as reviewed in the previous section.

At the other end of the methodological spectrum, Walmsley, Yadav and Rees (1992) carried out an event study to examine the information content of the company meeting programme of the Society of Investment Analysts for 1985 to 1990. They concluded that information is impounded into the share price. They consider that generation of information in this manner is potentially unfair and could be illegal.

Econometric modelling has been applied by Bhushan (1989b) to the relationship between analysts and companies in the United States. He proposed a model of analyst following and suggested several firm characteristics that are likely to influence the extent of a firm's analyst following. These were, ownership structure, firm size, return variability, number of lines of business and correlation between firm return and market return. Using regression analysis he found that most of these variables were strongly significant in explaining the number of analysts following a firm. Analyst following was defined as the number of analysts following a firm as listed in Nelson's

Directory of Wall Street Research (1986). The paper did not use any data on analyst meetings or other informal contacts.

O'Brien and Bhushan (1990) then examined analysts' decisions to follow firms along with institutional investors' decisions to hold these firms in their portfolios. They developed a simultaneous statistical model of joint behaviour and investigated firm and industry characteristics as determinants of analyst following and institutional ownership. They found that analyst following increases more in firms with small prior analyst following and in firms whose return volatility has declined and that analyst following increases more in industries with regulated disclosure and with increasing number of firms. Institutional ownership increases with firm size and with increased market risk.

6.5 Other relevant literature

In reviewing the literature relating to communications between analysts and companies it should be noted that in the 1980s changes in the legal and regulatory framework have occurred. The situation is more strictly regulated than was the case previously so that older literature has restricted relevance in the context of the current study.

There are numerous textbooks and handbooks that deal with the activities of investment analysts. Many of these include descriptive material relevant to informal contacts between analysts and companies. A review of a selection of this literature will now be presented.

Bellemore, Phillips and Ritchie (1979) are the authors of a textbook entitled 'Investment Analysis and Portfolio Selection'. This provides a list of the types of questions analysts ask when visiting companies (p.323-326). There are twelve questions on sales, six on selling and distribution, eight on competition, two on patent aspects, seven on production, four on raw materials, seven on expansion, five on research, five on management, five on employee relations, six

financial questions, four on dividend policies and prospects, eight on earnings and five on miscellaneous topics. On reviewing the detail of the questions in the light of present day reporting requirements and insider dealing legislation it is clear that much of the information requested would now be in the accounts anyway and many of the questions would not be legally permissible. For example, one question suggested is 'any new acquisitions in mind?' whilst another asks about 'new products on the fire and their prospects'. Any company today disclosing such information would be required by the stock exchange and legal requirements to make a public announcement before disclosing such items to an individual analyst. Other suggested questions of a more general nature could still be asked by analysts. For example 'what concerns are viewed as chief competitors?' or 'does management show continuity or frequent changes?'.

Gibbs and Seward (1983) contributed a chapter entitled 'How an investment analyst uses a profit forecast and makes his own' in a book by Westwick (1983). They provide a relevant comment as follows (p.141):

In most cases, the analyst will try to arrange a meeting with senior management of the company concerned in order to find out more about the group's activities and its place in the industry. A similar purpose is served by the regular meetings organised by the Society of Investment Analysts between company representatives and investment analysts. Such meetings are usually welcomed by both sides, since mutual understanding between investors and the company can only be beneficial. It should be noted, however, that both sides are careful not to request (or to divulge) information which is not, or could not be made, generally available to shareholders.

The Companies Act 1980 has made it a criminal offence to deal, or advise someone else to deal, on the basis of unpublished price-sensitive information.

The authors quoted here are writing as representatives of Philips and Drew, a large firm of London stockbrokers. Their comments are based on many years of experience as investment analysts.

The Financial Analysts Handbook edited by Levine (1988) contains several chapters that have relevant comments on informal contacts between companies and analysts. Porter (1988, pp.375-388) provides a chapter on how to conduct an industry analysis as opposed to a specific company analysis. He stresses the importance of sources of field data within the companies in the industry. Field interviews should be carried out and a number of hints are provided:

Much interesting information often comes after the formal interview is over. For example, if the researcher can get a plant tour, the interviewee may become much more open as the setting becomes removed from the more formal setting of the office....

It will generally be most productive to start an interview with non-threatening general questions rather than asking for specific numbers or other potentially sensitive data. In situations in which concern over sensitive data may be likely, it is usually best to state explicitly at the beginning of an interview that the researcher is not asking for proprietary data but rather impressions about the industry. Often individuals will be willing to provide data in the form of ranges, "ball park" figures, or "round numbers" that can be extremely useful to the interviewer.

Rudd (1988, pp.452-455) provides a chapter on site visits for the analyst preparing a report on a particular company. He states that a site visit enables an analyst to round out his knowledge and understanding of a company in several ways but makes the following provision:

At all times during his investigation, and particularly at the site visit, the analyst must be constantly aware of his obligation, under the regulations governing transactions in securities, to avoid obtaining any information of a material nature which might be considered "inside information". If, as

might happen, any inkling is given at any time to what seems to be significant new information about the subject company (or another), management should be so informed, with the suggestion that the information be made public. Until the latter has been done, the analyst is obligated not to use such information, directly or by implication, either privately or publicly.

Apart from books specifically about investment analysis there are many books written for the non-specialist which describe the workings of the stock exchange and the financial services industry. These may serve to perpetuate the general belief that analysts are in a privileged position compared to ordinary investors. As an example, Chapman (1987) provides his view of 'the stock exchange grapevine' including a description of analysts' activities (pp.135-136):

An analyst will also spend a lot of time on the telephone asking questions, as well as attending briefings and seminars. In recent years it has become customary for companies, particularly large companies, to make life as comfortable as possible for analysts, transporting them en bloc or individually to expensive country hotels, where it is possible for them to socialize with directors and senior management as well as talk shop. A thorough briefing of analysts just before a company's results are published can be crucial in getting a good press.... Expectations can be lowered, if profits are going to be bad, and vice versa.

Recent articles in the financial press have highlighted the existence of brokers' lunches in relation to the new legislation and regulation affecting these activities. The headline in 'Accountancy Age' on 18th January 1990 was entitled 'Brokers' lunches come under serious scrutiny'. The article made the following claim:

Brokers' lunches, long the conduit of 'confidential' information between listed company finance directors and city analysts and investors, have become the latest target of the government's campaign to clean up the investment industry.

Finance directors revealing information about their business, in good faith, but selectively, to City investors and brokers could, as a result, be sucked into the forthcoming wave of insider dealing prosecutions.

A confidential probe, currently underway, is looking at ways to stamp out what the Department of Trade and Industry sees as potential sources of insider information.

In a follow up article, Luther (1990) considers the conundrum that if no price sensitive information is transferred then why are the meetings held? In particular, he then considers the common occurrence of offeree directors in a take-over situation holding special meetings for fund managers. These meetings are allowed by the City Panel on Takeovers and Mergers provided 'no material new information is forthcoming and no significant new opinions are expressed'. Luther considers that, in view of the popularity of such meetings, new and relevant information is being provided in contravention of rule 19 of the City Code on Takeovers and Mergers.

The Society of Investment Analysts held a one day seminar on 'Insider Dealing and the Investment Analyst' on 18th April 1989 (Society of Investment Analysts, 1989a). This included a speech by C Tracey, a director on the fund management side of Robert Fleming Asset management. The transcript of his speech provides a view of the problems involved in company meetings with analysts at the time:

Most institutions, although not all, regularly meet company managements either with other institutions - typically this might be a lunch in the City - or as a one on one meeting. The immediate consequence of the 1985 Companies Act was that some companies refused to have any meetings with small groups for fear that they might be inveigled into giving information which was subsequently interpreted as being price sensitive. The problem was not then, and is not now, any lack of clarity as to what I would call 'hard-core' price sensitive information - profits, dividends, takeover targets et al - but that vast grey area of information which persuades somebody to deal for reasons which

company management would be totally bemused by. Mercifully those companies have mostly overcome their initial paranoia and company visits and meetings are generally undertaken in a spirit of common sense.

The foregoing comment by a practitioner is interesting in that it clearly acknowledges the fact that changes in legislation did cause a disruption to the normal channels of communication between companies and analysts.

In concluding this section it is clear that informal contacts between analysts and companies have long been the norm. The literature clearly indicates that such meetings were viewed with approval as an essential part of a company's financial public relations exercise.

More recently doubts have been cast on the legality of established practices. This has implications for the author's survey which was carried out at a time when various groups outside the City were focussing their attention on the subject under investigation. Subsequent to the completion of the survey there has been renewed criticism of company briefings of analysts in the press and new legislation has been introduced that may well lead to curbing of the investor relations process (see chapter 2.5).

6.6 Conclusions

In concluding this chapter a number of main themes and points that have emerged can be summarised. It is clear that maintaining company contacts is an important and time consuming part of the normal working practices of investment analysts. What is not so clear is the content of the information that flows from the company during such contacts.

Analysts seem to be fully aware of the legal problems that can arise if price sensitive information is obtained from company contacts. On the other hand, the flow of information is seen as beneficial in building up a relationship of mutual understanding between companies

and analysts. Outsiders, however, do not necessarily approve of the special relationship that appears to exist between companies and analysts. During the carrying out of this study and survey the topic of investigation has come under increasing scrutiny from commentators, legislators and regulators.

The review of the literature indicates that this area is worthy of further detailed investigation. The existing research concentrates on the analyst's perception of company contacts. In the current study the activities and views of the companies involved in investor relations with analysts are investigated.

The literature concerning company communications with analysts and fund managers has now been reviewed in chapters two to six. The next chapter will set out the research questions and hypotheses arising from the literature review.

Chapter 7 Research Questions and Hypotheses

7.1 Introduction

The aim of this chapter is to identify the research questions that have emerged from the body of literature reviewed in chapters two to six. These questions will be categorised into two broad classes. Firstly, general questions about the communications between companies and analysts will be set out and secondly, a number of specific hypotheses will be proposed. Evidence from the literature review chapters will be considered in formulating these hypotheses.

Once the research questions have been determined the research methods used in attempting to answer them will be outlined.

7.2 The general research questions arising from the literature

This section will set out the general questions that have arisen from the detailed study of literature relevant to the research area. The research problem under consideration is the disclosure of information by companies to analysts. In particular, this project is concerned with the superior access to company personnel that analysts appear to enjoy. All users have access to published information such as the annual report. Analysts, however, maintain informal contacts with companies which may serve as a route for additional information disclosure.

The major, overall, question that encapsulates the current project seeks to establish the causes, nature and effect of company communications with analysts.

The general research questions that present themselves can be stated as follows:

How much does it cost companies, both in terms of money spent and organisational effort, to maintain a programme of communications with analysts?

What methods of communication are used by individual companies in getting their message across?

What information is communicated by companies to analysts?

What are the opinions of the companies regarding the costs and benefits of communicating with analysts?

It was decided to attempt to answer the general research questions by means of a postal questionnaire (see chapter 8). Questions were formulated accordingly, taking into account the findings of the literature review.

The first question that was considered in detail was the cost to companies, both in terms of money spent and organisational effort, of maintaining a programme of communication with investment analysts. All information disclosure costs money and any disclosures in excess of legal and regulatory requirements should be evaluated in terms of the likely costs and benefits. Communicating with analysts is a voluntary activity when considered in terms of legal and regulatory requirements. However, companies may feel that capital market forces demand a programme of communication with analysts. It was therefore valuable to establish the costs incurred by companies and their attitudes towards the value of the various activities carried out as part of the programme of communicating with analysts.

It was felt that investor relations with analysts was unlikely to be costed separately by most companies. The literature indicated that although some companies maintain investor relations departments these are not solely concerned with communicating with analysts. In some cases investor relations is carried out by the public relations department or indeed there may be no department with specific responsibility. The literature indicated that top level executives

may devote some of their time to communicating with analysts. In effect, the costs are likely to be spread within the organisation.

One aspect of the total costs expended by the company is the amount of staff time taken up with communicating with analysts. Obviously staff at different levels within the organisation are involved and it was therefore considered appropriate to investigate this aspect in stages. Starting at board level, companies were asked to provide an estimate of the number of working days per year expended by directors on communicating with analysts. Even if this information was not available some information was obtained by establishing which directors were involved to any extent in the activity. The degree of involvement by each board member was established since it was felt to be likely that different directors would devote varying amounts of time and effort to analyst communications.

It was decided to ask the respondent company whether it had an investor relations or financial public relations officer. This is evidence of a cost incurred partly to service the analyst group. The company was then asked to provide salary details and details of the number of support staff. At this stage the questionnaire attempted to establish the budget allocation for the department excluding staff costs. Budgets could include the costs of organising functions for analysts, such as brokers' lunches. On reflection, it is unlikely that any departmental budget allocation will be directly comparable between companies since there are complications such as the method of allocation of fixed costs. Despite this difficulty an attempt was made to elicit this information.

Another type of cost that can be incurred is the retention of an external financial public relations consultant. This information was elicited from companies and they were asked to disclose the annual cost incurred. Such a consultant may be involved with the analyst communication programme and one question attempted to establish the proportion of the fees relating to this aspect of the financial public relations services.

If a company incurs substantial costs in carrying out an investor relations programme it is likely that it may try to assess its success. This can be done by employing a market research organisation to carry out a survey of City opinion. Companies were asked whether they had used this type of service, how many times and what it had cost.

Once questions regarding the costs of the programme of communication with analysts had been drafted the next general research question was to establish what activities are contained within the programme. The literature reviewed in chapters two to six indicates that communication is carried out under three broad categories, written communications, telephone conversations and meetings. The questionnaire aimed to establish what methods are used by companies and also to obtain the companies' views as to the relative importance of the different methods.

In order to establish in more detail exactly what occurs a number of specific questions were asked. It appears to be the case that meetings with analysts can be categorised into two broad groups. These can be termed 'general meetings' which are attended by analysts from a number of different organisations such as firms of stockbrokers and investment funds and 'special meetings' which are set up for one or more representative analysts from a particular organisation. From the point of view of the company a 'general meeting' is likely to be more cost effective due to economies of scale in briefing a large number of analysts at once. However, the literature indicates that analysts demand and receive individual attention in addition to group briefings. Dignan (1989), for example, comments on the trend for holding one-to-one lunches for fund managers (see 4.4). Analysts are looking for superior information that supplements published data and they can only use this information to make superior forecasts if the information is not released to the market. It appears from the literature that analysts also demand access to top level management in preference to investor relations officers. Taylor Nelson's (1989) findings were that fund managers generally prefer direct contact with finance directors or chief executive officers rather than the investor relations officer (see 4.6).

In order to assess the extent to which companies respond to analysts' demands, the participation of company management in general meetings and special or individual meetings was established. Companies were also asked whether they keep a record of the proceedings of these meetings. If a record is kept it indicates concern by the company that meetings comply with legal and regulatory requirements.

The level of activity is of interest and the number of meetings was elicited from the company. It was expected that there would be some variation in the numbers of meetings of each type held by companies. Since meetings cost money in terms of staff time and other direct costs this data is also of relevance in the context of establishing the cost, in terms of organisational effort, of communicating with analysts.

The investor relations literature indicates that maintenance of an up to date list of interested analysts is an important part of the investor relations function. Companies were asked to provide data regarding the number of analysts and employing organisations who were on the list for invitation to meetings. This question provided data regarding the size of the target audience for the programme of analysts' meetings. Since not all analysts attend meetings when invited, companies were also asked to estimate the number of individuals who had actually attended meetings.

It appears that a great deal of time and effort is spent by companies and analysts on setting up and attending meetings, it was therefore logical to investigate the information content of these meetings. Meetings are essentially a form of communication and it is to be expected that valuable information passes at these meetings. Analysts have access to all published information, such as the annual report and the London Stock Exchange Company News Service announcements. Although analysts do not admit explicitly that they are seeking price sensitive inside information the literature indicates that they expect to receive some extra information from company officials at meetings. It is difficult to draw a dividing line between price sensitive information as defined by the legislation and other information which

may be price sensitive but which does not fall foul of the Company Securities (Insider Dealing) Act (1985).

Companies were asked to indicate the subject areas that are discussed at analysts' meetings. In addition they were asked to indicate which topics are viewed as being more important and which as being of lesser importance.

Telephone conversations between analysts and company personnel are a more immediate and less formal method of communicating information. Companies were asked to identify those personnel who answer telephone calls from analysts. As mentioned earlier, the literature indicates that analysts may prefer to talk to top level management rather than the designated investor relations official. The number and rank of company personnel who talk to analysts was established to provide some measure both of the importance of this form of communication and the cost in terms of staff time. Companies were asked if a tape recorded or written record is kept of these telephone conversations and this is evidence of a company's concern to comply with legal and regulatory requirements.

Company communications with analysts are part of a process that eventually leads to the production of some form of written report. The broker's analyst provides a report for clients which may generate business for the firm. The analyst working for a fund manager will produce a report to advise on a particular course of investment or disinvestment. The analyst is likely to be judged on the quality of his reports and there are publications providing a ranking of analysts. For example, by 1991 Extel had published eighteen editions of its annual survey ranking UK investment analysts (Extel Financial, 1991). There is a clear incentive for analysts to attempt to obtain company feedback on their reports prior to publication. This activity is therefore an integral part of the company programme of communications with analysts and worthy of investigation.

Companies were asked to provide an estimate of the number of analysts' reports that had been produced in the past twelve months. They were also asked how many reports had been passed to them with a request for

comments. There is no legal or regulatory obligation for companies to make comments. In fact, it would probably be safer for them not to do so. However, considering the competition for capital in the market place there is an incentive to cooperate with analysts and comply with their requests. The level of feedback provided by companies was investigated. In particular, the extent to which guidance was provided regarding the accuracy of analysts' profit forecasts was determined.

In addition to the communication activities outlined above, many companies maintain a programme of mailing information to analysts. The number of analysts on the mailing list provided a measure of the extent of this activity and an indication of its cost. Companies were asked what information is mailed to analysts, ranging from generally available published information to specially designed documentation. Analysts may find it convenient to receive all generally published information direct from the company without having to obtain it from other sources or make a special request to the company. The costs to the company are likely to be fairly minimal in comparison with other parts of the communication programme. If the documents are already available, there will be extra printing and postage costs plus the staff costs of maintaining the mailing list. However, if companies design documents specially for analysts, either to be mailed separately or to be sent out as part of an information pack, there will be extra costs. The literature indicates that some companies do this although the information contained therein may be no more than a restatement or summarisation of existing publications. These documents, if they exist, indicate a desire by the company to be especially helpful to analysts.

Although it is generally accepted in the literature that company communications with analysts do occur there is evidence to suggest that most companies do maintain close seasons, prior to important announcements, when they will not communicate with analysts. Such a policy is clearly intended to prevent accusations of passing inside information and it serves to protect both the company and the analysts. Companies were asked to specify their policy and to quantify the length of time involved.

Having asked questions relevant to the first three general research questions, the fourth area was addressed. Factual data regarding the cost of the communications programme and describing how it is carried out was supplemented by an opinion survey. Companies may feel forced to comply with analysts' demands for information without having any desire to communicate. If every company in a competitive market for capital is meeting the information needs of analysts then a company failing to do so may be ignored and suffer a fall in demand for its capital.

Companies were asked for their opinions and attitudes on the need for a programme of communication with analysts. There is evidence in the literature that, despite all their efforts at communication, companies feel poorly served by analysts. Typically they may feel that analysts undervalue their company and that analysts have failed to understand and to interpret properly the information that has been communicated to them. Many companies seem to consider that analysts are poorly qualified and lack the necessary experience to make informed judgements. Accordingly, companies were asked for their views on the quality of analysts' reports.

It was considered that if companies were not totally satisfied with the current situation at the time of the survey they might have ideas for improving communications with analysts. These opinions were solicited by asking companies to write comments on the topic.

One aspect of the City that has been criticised by industry is its perceived short-termism. The literature indicates that many industrialists are unhappy with the short term investment patterns that occur when immediate profits are a priority. Investment funds may be moved rapidly from one company to another in an attempt to realise short term gains. The investing institutions have, to a certain extent, contradicted these criticisms and claimed that they are interested in long term investment and growth. Companies were asked for their views on this matter.

This section has considered the four main general research questions and outlined the way in which specific questions were formulated and included in the questionnaire in an attempt to provide the answers.

7.3 Formulation of specific hypotheses

The preceding section set out the general research questions that arise from the literature discussed in chapters two to six. In order to answer these points a selection of questions were proposed relating both to simple factual information about the company's programme of investor relations with analysts and to company opinions about the activity. In the first instance, the data gathered can be used to provide descriptive statistics enabling an overview of the situation to be obtained. This section will propose a number of specific hypotheses which can be tested using appropriate statistical tests. Each hypothesis will be supported using evidence from the literature.

It is a reasonable assumption that different companies will incur varying costs, in terms of both money and organisational effort, in carrying out their investor relations programme with analysts. Companies are competing for capital in the market place and responding to demands for information from analysts. In theory they will be willing to provide information to the extent that the costs of providing the information do not exceed the perceived benefits arising from provision of the information. This process of information provision is subject to the restraint imposed by legal and regulatory bodies.

7.3.1 The association between company size and the cost of communications with analysts (hypothesis H1)

An area of information disclosure that has been studied extensively by researchers in the past is the extent of information disclosure in annual reports. Authors such as Cerf (1961), Singhvi and Desai

(1971), Buzby (1974 & 1975), Belkaoui and Kahl (1978), Firth (1984), Chow and Wong-Boren (1987), Cooke (1989) and Gray and Roberts (1989) have hypothesized and tested for a link between company size and the extent of disclosure in annual reports. It seems appropriate to test a similar hypothesis in the context of the investor relations programme with analysts.

This will be tested via the null hypothesis that the costs incurred by companies in communicating with analysts are not related to company size. This can be stated as follows:

H1 There is no association between costs incurred in communicating with analysts and company size.

The alternative hypothesis is that there is a relationship between costs incurred and company size, either large company size is associated with a high costs or large company size is associated with low costs.

If X_i = Cost of analyst communications programme incurred by Company i and if Y_i = Size of company i, then, in relation to company j, either

$Y_i > Y_j$ where $X_i > X_j$ or,

$Y_i < Y_j$ where $X_i > X_j$

The alternative hypothesis does not specify a direction and two-tailed tests are therefore appropriate. In view of the exploratory nature of the study all the hypotheses will be formulated in this way even though there may be an priori case for specifying a direction for the alternative hypothesis.

In order to test the null hypothesis H1, the data obtained from the companies needs to be related to a suitable variable describing company size. Since there is no definitive measure of company size it is appropriate to consider the measures used by the researchers mentioned above. Turnover was used in three cases, assets size in

four cases, tangible net assets in one case, number of stockholders in two cases, market value of equity in one case and market value of equity and book value of debt in one other case. Six possibilities therefore arise here but this is not an exhaustive list. The number of employees is another possible variable and there are several others that could be used.

For the purpose of this study it was decided to use average market capitalization of equity for the twelve months prior to the time of issue of the questionnaire obtained from Datastream. This variable was considered appropriate as investor relations is concerned with the marketing of the company's capital to investors. Market capitalization is thus the most relevant measure of company size in this instance.

7.3.2 The association between marketability of shares and the cost of company communication with analysts (hypothesis H2)

There are two aspect of marketability that will be considered here, world-wide marketability and marketability on the home stock exchange in terms of trading frequency.

One hypothesis that has been tested in connection with disclosure in annual reports is that there might be a link between listing status and information disclosure. This has been investigated by Cerf (1961), Singhvi and Desai (1971), Buzby (1975) and Cooke (1989). A positive association between level of disclosure and listing status was established by these studies with the exclusion of Buzby.

In the current study, it is proposed to utilise this hypothesis. In the studies noted above companies were categorised as listed or unlisted, apart from Cooke's study where he categorised the companies as unlisted, listed in Sweden and listed in Sweden and abroad. The companies selected for this survey all have a full listing on the London Stock Exchange. If they also have quotations on other stock

exchanges they are competing actively for capital in more than one market place.

Companies listed on the London Stock Exchange are not all equal in terms of the breadth and depth of the market for their shares. From the point of view of the company it would seem to be desirable for its shares to be easily marketable. Shareholders will benefit from a smaller spread between bid and offer prices where there is an active market in a company's shares. Shareholders may be less willing to invest in a company whose shares are only thinly traded. Accordingly, a company might perceive communications with analysts as a way of generating interest in its shares and hence improving their marketability.

In view of the above comments it is appropriate to investigate the relationship between marketability and investor relations costs. This will be tested via the null hypothesis that there is no relationship between share marketability (as measured by multiple listing and trading frequency) and the costs incurred in communicating with analysts. This can be stated as follows:

H2 There is no association between costs incurred in communicating with analysts and marketability of company shares.

The alternative hypothesis is that there is a relationship between costs incurred and share marketability. Either higher costs are associated with higher marketability or higher costs are associated with lower marketability.

Where X_i = Cost of analyst communication programme incurred by Company i and Y_i = marketability of equity, then, in relation to company j , either

$Y_i > Y_j$ where $X_i > X_j$ or,

$Y_i < Y_j$ where $X_i > X_j$

A related line of enquiry was followed by Hirst (1988), who investigated the relationship between stockbrokers' research and share marketability. He attempted to measure the resources allocated to researching particular companies but found that research output was not significantly related to the number of bargains or stock market turnover. His data, however, was gathered in 1983, prior to the increased awareness of the importance of investor relations as evidenced by the literature reviewed in chapter four.

In order to test the null hypothesis H2 for marketability on the London stock exchange a number of variables were used. At the time of the survey, company stocks were categorised as alpha, beta or gamma stocks according to the number of market makers. This ordinal data was used in testing with the data obtained from the survey. More exact data was obtained from the London Business School Risk Measurement Service which provides a trading frequency variable, the average time elapsing between trades.

7.3.3 The association between risk measures and the cost of analyst communications (hypothesis H3)

It is a generally perceived wisdom that the stock market does not like shocks. Company management do not, in general, want their shares to exhibit price volatility. This can lead to such cosmetic techniques as income smoothing and management preferring to maintain a steady dividend policy (Ronen & Sadan 1981). It is generally accepted that the United Kingdom stock market approximates a state of semi-strong efficiency. Market shocks can occur when information known only to the company and not anticipated by the market is released. One way for companies to avoid this is to provide information regularly to analysts. The information can be provided explicitly but the literature indicates that companies feel the need to provide information in a more covert form in certain instances.

Companies that communicate with analysts can provide information of different types. Firstly they can provide information that has

already been published. This is of no benefit to the analyst apart from the convenience element, the information is provided and the analyst need not seek it out. Secondly the company can provide advance knowledge of information that will eventually be published. This could be an overt statement (eg the profits figure in the set of accounts that will be published next week) but it is more likely to be a subtle hint (eg the profits may not be as good as expectations). Early release of information to the market in this way reduces shocks at a later stage. Companies who actively communicate with analysts should therefore benefit from reduced share price volatility. Thirdly companies can provide voluntarily information that is not required to be published, this may change the market's estimation of the risk of the share, either the market/systematic risk (beta) or the firm specific or non-systematic risk.

Firth (1984) investigated the extent of voluntary disclosure in corporate annual reports and its association with security risk measures. The level of disclosure was investigated to see if it was associated with systematic risk (beta), unsystematic risk and variance of return. The results revealed no significant association between the amount of disclosure and the level of stock market risk.

In view of the above comments, it is appropriate to investigate the relationship between risk and investor relations costs. This will be tested via the null hypothesis that the cost of the company's programme of communication with analysts is not associated with the stock market's assessment of company risk. This can be stated as follows:

H3 There is no association between costs incurred in communicating with analysts and stock market risk measures for the company.

The alternative hypothesis is that there is a relationship between costs incurred and company risk measures.

Where X_i = Cost of analyst communication programme of Company i ,
and Y_i = Equity risk measure, then, in relation to company y ,
either

$$Y_i > Y_j \text{ where } X_i > X_j \text{ or,}$$

$$Y_i < Y_j \text{ where } X_i > X_j$$

The London Business School Risk Measurement Service provides a variety of risk measures that were used in testing the null hypothesis H3. These are the beta, the sensitivity of the share price to general market movements, the variability (standard deviation) of the returns on the shares and the specific risk, the risk of non-market related fluctuations in the share price.

7.3.4 The association between profitability and the cost of analyst communications (hypothesis H4)

Company management are liable to receive criticism from the investing public when their profit figures fall or are poor compared to the sector. A company with low profits may feel the need to expend extra effort in explaining the reasons for this to analysts. Other managements may prefer to maintain a low profile when profits are poor. Companies with good profit performance may wish to broadcast the good news among analysts and fund managers, perhaps to attract new investors and induce goodwill in existing investors. Other companies, fearing a takeover bid, may be less inclined to expand the investor relations effort.

Previous researchers have investigated the association between profitability and disclosure in company accounts. Singhvi and Desai (1971) found that less profitable firms disclosed inadequate information in accounts but Belkaoui and Kahl (1978) found that disclosure significantly decreased as profitability increased. Roberts and Gray (1988a) found no significant association between profitability and accounts disclosure after controlling for company

size although Gray and Roberts (1989) found that voluntary information disclosure was significantly associated with profitability. Beattie and Jones (1992) found that companies with 'good' performance were significantly more likely to use graphs, a form of voluntary disclosure, in their annual reports.

In view of the above remarks it seems appropriate to investigate the relationship between profitability and investor relations costs. This will be tested via the null hypothesis that the profitability of a company is not associated with the costs incurred in communicating with analysts. This can be stated as follows:

H4 There is no association between costs incurred in communicating with analysts and company profitability.

The alternative hypothesis is that there is a relationship between costs incurred and company profitability. Either higher profitability is associated with higher costs or higher profitability is associated with lower costs.

Where X_i = Cost of analyst communication programme incurred by company i and Y_i = Profitability of company i , then, in relation to company j , either,

$Y_i > Y_j$ where $X_i > X_j$ or,

$Y_i < Y_j$ where $X_i > X_j$

There are many measures of profitability and a selection of those provided by Datastream were used in this instance. These are Datastream company accounts items 707, return on capital employed, 711, trading profit margin, 716 pre-tax profit margin and 703, return on shareholders' capital.

7.3.5 The association between gearing and the cost of analyst communications (hypothesis H5)

High gearing can be a problem for companies when there is an economic downturn. Problems with loan creditors can lead to capital restructuring and the need for rescue packages. Companies with a high level of gearing may need to keep analysts well informed as a form of reassurance. However companies in severe difficulty may see little point in trying to maintain an investor relations programme if they are too busy trying to salvage the business.

Previous researchers have hypothesized a link between gearing and disclosure in company accounts. Belkaoui and Kahl (1978) found that capital gearing was significantly negatively associated with disclosure. Chow and Wong-Boren (1987) found no significant effects due to financial leverage on voluntary disclosure. Roberts and Gray (1988a) found that gearing was not a factor explaining disclosure whereas Gray and Roberts (1989) noted that gearing was significantly positively associated with voluntary disclosure when using one type of test (Mann-Whitney) but not the other (chi-square).

In view of the above remarks it appears appropriate to investigate the relationship between gearing and investor relations costs. This will be tested via the null hypothesis that there is no association between gearing and the cost of communicating with analysts. This can be stated as follows:

H5 There is no association between costs incurred in communicating with analysts and company gearing.

The alternative hypothesis is that there is a relationship between costs incurred and company gearing. Either higher gearing is associated with higher costs or higher gearing is associated with lower costs.

Where X_i = Cost of analyst communication programme incurred by Company i and Y_i = Gearing, then, in relation to company j , either

$$Y_i > Y_j \text{ where } X_i > X_j \text{ or,}$$

$$Y_i < Y_j \text{ where } X_i > X_j$$

The variables used here are Datastream company accounts items 731, capital gearing, 732, income gearing and 733, borrowing ratio. Capital gearing is defined as preference capital plus debt divided by capital employed (less intangibles). Income gearing is the proportion of interest charges to operating and other income. Borrowing ratio is debt divided by equity capital plus reserves (plus deferred tax minus intangibles).

7.3.6 The association between recent takeovers and the cost of analyst communications (hypothesis H6)

During the 1980s both the UK and the US economies saw a boom in takeovers. Many commentators have criticised predatory takeovers and the associated evil of short-termism (see Marsh (1990) for a detailed discussion). Thus companies which have made takeovers may be keen to maintain good investor relations in order to avoid accusations of asset stripping. Some companies have made unprofitable takeovers, leading to severe losses or their eventual destruction. Companies having made takeovers may need to satisfy the City that this is not the case. Overall then, takeover activity may lead to increased investor relations effort. One restraint arises from the regulations of the City Panel on Takeovers and Mergers which curb the extent to which companies may communicate during takeover bids.

In view of the above remarks it appears appropriate to investigate the relationship between takeover activity and investor relations costs. This will be tested via the null hypothesis that the cost of the company's programme of communication with analysts is not associated with recent takeover activity. This can be stated as follows:

H6 There is no association between costs incurred in communicating with analysts and recent takeover activity by the company.

The alternative hypothesis is that there is a relationship between costs incurred and recent takeover activity. Either a high level of recent takeover activity is associated with higher costs or a high level of recent takeover activity is associated with lower costs.

Where X_i = Cost of analyst communication programme of Company i ,
and Y_i = Number of recent takeovers, then, in relation to company y

$Y_i > Y_j$ where $X_i > X_j$ or,

$Y_i < Y_j$ where $X_i > X_j$

The variable used here in testing the null hypothesis H6 is the number of takeovers by the company listed in the Quality of Markets Quarterly Review, (subsequently the Stock Exchange Quarterly with Quality of Markets Review), published by the London Stock Exchange, for the twelve months prior to the circulation of the questionnaire.

7.3.7 The association between insider shareholdings and the cost of analyst communications (hypothesis H7)

Companies which have a large proportion of their shares held by insiders such as directors and their families may be less interested in attracting institutional investors for fear of losing control. They may be smaller companies with a low level investor relations programme. Shareholding by management may reduce agency costs since managers have an interest not only in their emoluments and perquisites of office but also in the performance of their shares. Such companies may feel that they can reduce their investor relations programme compared to those companies with a lower level of insider

shareholdings which need to demonstrate the probity of management to the City.

Earlier researchers have hypothesized an association between insider shareholdings and analyst following and accounting disclosures. Bhushan (1989b) found that there was a significant negative correlation between the number of analysts following a firm and the percentage of insider shareholdings. Forker (1992) found that the proportion of the firm owned by management was not a significant predictor for the quality of option disclosure in accounts.

In view of the above comments it is considered appropriate to investigate the relationship between insider shareholdings and investor relations costs. This will be done via the null hypothesis that the cost of the company's programme of communication with analysts is not associated with the level of insider shareholdings. This can be stated as follows:

H7 There is no association between costs incurred in communicating with analysts and the level of insider shareholdings.

The alternative hypothesis is that there is a relationship between costs incurred and the level of insider shareholdings. Either a high level of insider shareholdings is associated with high costs or a high level of insider shareholdings is associated with low costs.

Where X_i = Cost of analyst communication programme of Company i ,
and Y_i = Level of insider shareholdings, then, in relation to company y

$Y_i > Y_j$ where $X_i > X_j$ or,

$Y_i < Y_j$ where $X_i > X_j$

The variable used in testing the null hypothesis H7 is the percentage of shares held by the board of directors, their family and associates as listed in Crawford's Directory of City Connections (Kinloch, 1992).

7.3.8 The association between substantial shareholdings and the cost of analyst communications (hypothesis H8)

Substantial shareholders may be institutional investors who have made a large investment in a particular company. They may be other companies who have built up a stake and may intend eventually to try a takeover or they may be wealthy individuals. UK companies are required to disclose substantial shareholdings over three per cent in their accounts. Companies where there are substantial shareholdings may tailor their investor relations programmes to existing major investors, or they may wish to attract more investors. It is easier to build up a substantial stake in a small company rather than a large company so companies with substantial shareholdings may be smaller companies with fewer resources to devote to investor relations.

Bhushan (1989b) found that the number of institutions investing and the percentage held by institutions was positively associated with the number of analysts following a US company. This result was based on a cut-off of one per cent for defining a substantial shareholding.

In view of the above discussion it is considered appropriate to investigate the relationship between the level of substantial shareholdings and investor relations costs. This will be tested via the null hypothesis that the cost of the company's programme of communication with analysts is not associated with the level of substantial shareholdings. This can be stated as follows:

H8 There is no association between costs incurred in communicating with analysts and the level of substantial shareholdings.

The alternative hypothesis is that there is a relationship between costs incurred and substantial shareholdings. Either a high level of substantial shareholdings is associated with high costs or a high level of substantial shareholdings is associated with low costs.

Where X_i = Cost of analyst communication programme of Company i ,
and Y_i = Level of substantial shareholdings, then, in relation to
company y , either

$$Y_i < Y_j \text{ for } X_i > X_j \text{ or}$$

$$Y_i > Y_j \text{ for } X_i > X_j$$

The variables used in testing the null hypothesis H_8 are the percentage of shares held by all substantial shareholders and the number of substantial shareholdings as listed in Crawford's Directory of City Connections (Kinloch, 1992).

7.3.9 The association between line of business and the cost of analyst communications (hypothesis H_9)

There are a number of reasons indicating that there might be some link between the amount of effort companies devote to communicating with analysts and the line of business in which they operate. Many businesses are cyclical in nature. For example, the 1980s saw a boom in property development and retailing followed by a slump. When a particular industry is riding high and the market is bullish it may not have to compete so hard for capital. However, when things are going wrong the incentive to maintain close contacts with analysts could increase.

This hypothesis has been tested by previous researchers in the context of disclosure in company accounts. Belkaoui and Kahl (1978) found that industry was a significant indicator of disclosure in accounts. Gray and Roberts (1989) found that the capital goods sector was significantly associated with more disclosure.

Bhushan (1989b) used a six category industrial classification and concluded that a firm's industry influences the extent of analyst following and also found (1989a) differences across industries in the marginal information content of earnings announcements.

In view of the above it appears to be appropriate to investigate the relationship between industrial classification and investor relations costs. This will be tested via the null hypothesis that there is no association between the company's line of business and the costs incurred in communicating with analysts. This can be stated as follows:

H9 There is no association between costs incurred in communicating with analysts and company line of business.

The alternative hypothesis is that there is a relationship between costs incurred and company line of business.

Where X_i = Cost of analyst communication programme of company i and L_I = the sub-set of companies in the same line of business and the mean value of X_i for each subset $L_{I..N}$ is denoted as $\langle X \rangle_{(K)}$, then $\langle X \rangle_{(K)}$ depends on K

The variable used here is the industrial classification provided by Datastream.

7.3.10 The plan for hypothesis testing

Prior to the commencement of hypothesis testing it is necessary to decide whether to carry out one-tailed or two-tailed tests. One-tailed tests are appropriate when the alternative hypothesis specifies a direction and two-tailed tests are appropriate when no direction is specified. The two-tailed test is considered to be more suitable in the case of exploratory analysis.

In this study the alternative hypotheses do not have a specified direction as this is an exploratory analysis of the investor relations activity. It was therefore decided to carry out two-tail tests.

It is also necessary to decide in advance on the required confidence level for rejection of the null hypothesis. In this study it was

decided to take a significance level of less than or equal to .05. This is in accordance with standard practice.

7.4 Conclusions

This chapter has drawn on the literature reviewed in chapters two to six in order to present a list of research questions that are relevant to the area under study. The questions have been divided into two broad groups. General research questions relate to the need to find out what is currently being practised in the area of company communications with analysts. These general questions also seek to establish company opinion about the current state of affairs. Answers provided to these general questions should provide a good overview of activities and opinions within the selected population. The specific hypotheses provide an opportunity to investigate possible explanatory variables for an individual company's behaviour.

The chapter has referred, in passing, to the method of collection of data. This comprised a postal questionnaire survey. The next chapter will review in detail the question of an appropriate research methodology. It will then describe in detail the methods and techniques employed in carrying out the survey.

Chapter 8 Design and Execution of the Research Project

8.1 Introduction

This chapter discusses the choice of methodology for the research project and then describes how the questionnaire was designed and circulated. The population and the achieved response rate is described along with reasons for non-response.

In addition to the questionnaire survey, two case study observations were carried out to improve the researcher's understanding of the investor relations process. These are described in this chapter.

The independent variables to be used in testing the hypotheses proposed in chapter seven are then described.

8.2 Choice of methodology

Company communications with analysts and fund managers can be viewed as being an informal part of the financial reporting and general information disclosure process. As such, the methodology used in researching disclosure in company accounts is of relevance. Another view of investor relations is that it is essentially financial public relations and can be included in the disciplines of marketing and management.

Many studies of disclosure in financial reports adopt a positivist methodology whereby a large number of company accounts are surveyed, data is obtained and hypotheses may be tested. In some cases researchers calculate an index of disclosure (Marston and Shrives, 1991) which is used as a measure of the amount of disclosure, voluntary or otherwise. It is common for univariate tests of association between company characteristics and disclosure to be carried out and multivariate analysis, possibly involving multiple regression is then performed. It is also possible to survey users and preparers of accounts to obtain their opinions on disclosures. Gray

and Roberts (1989) used questionnaires and interviews to assess corporate attitudes to voluntary disclosures.

Details of company communications with analysts and fund managers are not enclosed in the annual report, there are no legal requirements for companies to keep records of meetings and other investor relations activities. The only way of obtaining information is directly from company officials. It was decided to use a postal questionnaire because this was the first study to be carried out concentrating on company communications with analysts. (Chapter six provides details of previous studies that touched briefly on the area.) By using a postal questionnaire a large number of quoted companies could be contacted and a picture of UK investor relations built up. An interview or case study methodology would have restricted the number of companies involved because of time and financial constraints.

Another possible methodology for investigating company communications with analysts is the event study approach. Walmsley, Yadav and Rees (1992) have studied the information content of the company meeting programme of the Society of Investment Analysts from 1985 to 1990. By examining share price movements for companies holding meetings under the auspices of the society they concluded that the meetings generated information which was impounded into the share price. The problem with this methodology is that it only answers one question about the investor relations process whereas a questionnaire approach, although sacrificing some objectivity, provides a richer more varied data set that is still amenable to statistical testing. Companies hold many meetings apart from those studied by Walmsley et al. (1992). The event study approach has not been used to study telephone conversations and one to one meetings (special meetings) and site visits. There is no public information source providing a comprehensive listing of these communication events and the practical difficulties of obtaining this data for a large number of companies would be a problem.

The event study approach, when it can be applied, is clearly a valuable way of investigating investor relations but the questionnaire methodology used in this study has advantages. It enables the

researcher to understand, by means of quantitative and qualitative information, the whole procedure under study. This project can thus be seen as complementary to those using an event study methodology.

Company communications with analysts have also been used as an explanatory variable in econometric modelling studies. In a study of the relationship between stockbrokers' research and share marketability, Hirst (1988) used stepwise regression to establish the determinants of marketability as measured by market size and spreads. Variables selected for input into the regression model included company co-operativeness and a measure of company contact along with other aspects of stockbrokers' research processes.

Analyst following has been studied using econometric modelling. Bhushan (1989b) examined the major determinants of the number of analysts following a firm. A simple model proposed five variables likely to influence a firm's analyst following. Ordinary least squares regressions were run, under a number of different specifications, to investigate the validity of the model. O'Brien and Bhushan (1990) modelled analyst following and institutional ownership as simultaneous equations. They investigated both firm and industry characteristics as determinants of analyst following and institutional ownership. Single equation ordinary least squares regressions and simultaneous estimations of the two equation system were carried out.

As noted above, use has also been made of multiple regression to model disclosure, as measured by an index of disclosure, in company accounts. Cooke (1989), for example, used stepwise regression to identify important variables explaining voluntary disclosure in Swedish accounts as measured by an index. The variables selected for entry into the model were: quotation status, parent company relationship, annual sales, total assets size and number of shareholders.

In conclusion, it can be stated that the postal questionnaire approach was considered to be appropriate. This method has been used in similar research projects and has several advantages. While acknowledging the validity of other research methods that have been or

could be employed it was decided to rely on the questionnaire as the main data gathering instrument.

8.3 Design of questionnaire

The aim of this section is to describe the steps taken in the design of the postal questionnaire.

Drafting was carried out after reviewing the available literature and deciding on the main topic areas to be investigated. In the drafting process consideration was given to the general principles of questionnaire design (Oppenheim, 1966) and the proposed use of the Minitab package for subsequent statistical analysis (Newcastle upon Tyne Polytechnic Computer Unit, 1986 and Minitab Inc., 1989).

The pilot questionnaire was kindly reviewed by two colleagues at the University of Northumbria lecturing in psychology and one colleague lecturing in statistics. The pilot was tested by asking four companies to complete it with the researcher present and noting comments and points of difficulty. Three local public limited companies agreed to this and one London based company was also contacted. In each case the official responsible for investor relations was sent a copy of the questionnaire prior to the interview. When the interviewer arrived the interviewee either completed the questionnaire in her presence or went through the responses he had already made. The Investor Relations Society was also contacted and the committee member responsible for research, who was also head of investor relations for a large UK public limited company, commented in writing on the pilot questionnaire.

After receiving all comments from the pilot testing a revised version was completed and finally reviewed by the committee member responsible for research at the Investor Relations Society.

Table 8-1 Response to postal questionnaire

	Responses		Refusals	
	No.	%	No.	%
1/8/91-16/9/91	232	42.4	41	7.5
17/9/91-28/2/92	92	16.8	21	3.8
1/3/92-6/7/92	13	2.4	7	1.3
Total responses	337	61.6	69	12.6
Total population	547	100.0		

Table 8-2 Analysis of reasons given for refusal

	No.	%
Company policy	26	37.7
No time	16	23.2
No specific reason	12	17.4
Too long	4	5.8
Taken over	3	4.3
De listing	1	1.4
Other	7	10.1
Total	69	100.0

8.4 Population and response rate

The aim of this section is to describe the population of companies selected for survey, to examine the response rate and consider the problem of possible bias due to non-response.

It was decided to select only large quoted UK companies for the survey. Although smaller companies do invest time and effort in communications with analysts it was felt that the activities of large companies should be the focus of this research. This is in accordance with much other research in the area of financial disclosure and reporting which tends to concentrate on those companies that are prominent in the capital markets.

The Financial Times UK Top 500 list of companies was used. This was published in week ending January 11 1991 and was calculated from each company's average market capitalisation in June 1990 (Financial Times, 1991b). The questionnaire was prepared for posting during June and July 1991 and it was noted that 15 of the 500 companies had been taken over, merged, become unquoted or gone into receivership. It was therefore decided to extract an up to date list of the top 500 UK quoted companies, by market value of equity, as on 1st July 1991 using Datastream. The two lists were merged to form a population of 547 companies which were quoted at 1st July 1991 and were on either one or the other of the two lists. Since the content of the top 500 companies is constantly changing it was felt appropriate to include those companies that had dropped out of the top 500 since the Financial Times list was compiled and to include companies that were new to the top 500 at the time of preparing the Datastream list. In fact only 448 companies were on both lists, indicating the volatility of lists that are prepared on the basis of market capitalisation.

Copies of the questionnaire were sent out by second class post on 1st August 1991. They were accompanied by a letter requesting assistance (see appendix A) and a reply paid envelope. A reminder with questionnaire and reply paid envelope was sent out on 16th September. Where the companies were members of the Investor Relations Society the reminder letter was sent out on headed notepaper by Mr. W. Stoker, who

Table 8-3 Details of population and respondents

	N	N*	MEAN	STDEV
MARKET VALUE (£m)				
Respondents	315	10	1084	2394
Population	525	22	932	2257
LOG(MARKET VALUE)				
Respondents	315	10	2.5437	0.6201
Population	525	22	2.4707	0.6029

	MIN	MAX	MEDIAN	Q1	Q3
MARKET VALUE (£m)					
Respondents	16	23491	287	107	960
Population	5	23491	217	101	786
LOG(MARKET VALUE)					
Respondents	1.2143	4.3709	2.4575	2.0309	2.9823
Population	0.6866	4.3709	2.3363	2.0026	2.8957

NOTE: N* represents missing values

was at the time the committee member in charge of research (see appendix A). In other cases the reminder letter was signed by the principal researcher for the project (see appendix A).

A good response was achieved and a final reminder, with questionnaire and reply paid envelope, was sent out at the beginning of March 1992 (see appendix A).

On analysing the refusals the main reason given was company policy. There were 12 anonymous respondents included in the 337 responses. Thus there were 153 companies that did not respond or refuse to take part, reduced to 141 after deducting the anonymous respondents.

With a 61.6% response rate the likelihood of serious non-response bias is obviously less of a problem than might have been encountered with a lower response rate. The market values at 1st August 1991 of the population of companies were compared with the market values of the respondent companies. This was done by downloading Datastream equity market value data (MV). The mean market value of the population was £932.1 million with a standard deviation of £2,257.1 million. The mean for the respondents was £1,084 million, standard deviation £2,394 million. This difference is not significant at the .05 level for a two tail Z-test giving a Z score of 1.213. However, the population size distribution is affected by outliers and a more symmetrical distribution can be obtained by a logarithmic transformation. In this case the Z-test is significant at the 0.032 level (Z value 2.15). It must be concluded that the respondents are not equivalent to a random sample of the population. They tend to be larger in size than the population as a whole. This is not a serious problem since analysts and fund managers tend to concentrate on larger companies, especially those in the FTSE100 stock exchange index. The responses from the early respondents were compared to those from the late respondents and there were no statistically significant differences.

As an additional check, to ensure that a good proportion of the most important companies had responded, the Financial Times UK Top 500 list for 1992 was compared with the list of respondents and it was noted that responses had been received from the 72 of the top 100 companies.

Table 8-4 Descriptive statistics for continuous independent variables

	N	N*	MEAN	MEDIAN
SIZE				
AV(MV)	325	0	951	265
LOGTAVMV	325	0	2.5028	2.4231
MARKETABILITY				
LISTINGS	325	0	0.4708	0.0000
LOGLIST	325	0	0.0875	0.0000
TRADFREQ	322	3	0.1988	0.0000
LOGTRADF	322	3	0.05829	0.00000
RISK				
BETA	309	16	0.9958	1.0300
VARIAB	309	16	35.210	33.400
SQRTVAR	309	16	5.8791	5.7793
SPECRISK	309	16	26.642	24.000
LOGTSRSK	309	16	1.3974	1.3802
PROFITABILITY				
707ROCE	311	14	17.44	16.39
711TPM	295	30	15.34	12.03
716PTPM	309	16	9.59	8.27
703ROSC	317	8	13.82	12.40
GEARING				
731CGEAR	312	13	35.07	30.40
732IGEAR	304	21	32.31	17.68
SQRTIG	304	21	16.009	15.674
733BR	318	7	0.676	0.430
SQRTBR	318	7	2.7505	2.7258
TAKEOVER ACTIVITY				
TAKEOVER	325	0	0.0431	0.0000
LOGTAKEO	325	0	0.01220	0.00000
SHAREHOLDER DETAILS				
BFA%	324	1	5.734	0.320
NEGRBFA%	324	1	-0.5964	-0.7576
TOTSSH	324	1	17.46	13.05
SQRTOTSH	324	1	3.683	3.748
NOOFSSH	324	1	1.6265	1.0000

8.5 Case study observations

The questionnaire approach can be criticised on the basis that the data obtained is incomplete compared to the case study approach. This is because only selected topics are studied by means of a rigid pre-prepared set of questions. It can be argued that case study observation yields richer, more complex, complete and interesting data. It was decided, therefore, to carry out a limited number of case study observations. One company was approached and permission was obtained to attend the meeting for institutional investors on both the interim results and final results announcement day. This experience gave additional insight into the investor relations process and confirmed the view that the questionnaire had been well drafted to cover essential aspects of meetings for analysts and fund managers.

8.6 The independent variables

8.6.1 Choice and source of variables

In order to test the hypotheses set out in chapter seven it was necessary to obtain further information on the respondent companies. The questionnaire was designed to obtain the maximum amount of information on investor relations and the background information questions were kept to a minimum. It was felt that publicly available information should be collected from elsewhere to avoid the problems attached to asking the respondents for the information. Several sources were used to obtain data on the respondent companies. Some data was normally distributed and the level of measurement was on an interval or ratio scale, in other cases the distribution was not normal and transformation was considered where appropriate. Other items were categorical or ordinal. In testing the hypotheses the nature of the variables was taken into account when choosing statistical tests. All the independent variables were given an abbreviated name for the subsequent Minitab analysis, these will be stated in the following description.

Table 8-4 (continued) Descriptive statistics for continuous independent variables

	TRMEAN	STDEV	SEMEAN
SIZE			
AV(MV)	593	2085	116
LOGTAVMV	2.4737	0.6015	0.0334
MARKETABILITY			
LISTINGS	0.1945	1.4834	0.0823
LOGLIST	0.0525	0.2101	0.0117
TRADFREQ	0.1121	0.5513	0.0307
LOGTRADF	0.04047	0.11376	0.00634
RISK			
BETA	1.0009	0.2211	0.0126
VARIAB	34.582	9.925	0.565
SQRTVAR	5.8481	0.8055	0.0458
SPECRISK	25.669	10.484	0.596
LOGTSRSK	1.3908	0.1517	0.0086
PROFITABILITY			
707ROCE	17.62	33.50	1.90
711TPM	14.55	21.47	1.25
716PTPM	9.65	18.98	1.08
703ROSC	13.33	23.40	1.31
GEARING			
731CGEAR	30.33	96.10	5.44
732IGEAR	23.32	76.22	4.37
SQRTIG	15.840	2.006	0.115
733BR	0.504	2.381	0.134
SQRTBR	2.7383	0.3336	0.0187
TAKEOVER ACTIVITY			
TAKEOVER	0.0000	0.2317	0.0129
LOGTAKEO	0.00000	0.06366	0.00353
SHAREHOLDER DETAILS			
BFA%	3.478	12.537	0.696
NEGRBFA%	-0.6059	0.3744	0.0208
TOTSSH	15.61	18.59	1.03
SQRTOTSH	3.575	2.217	0.123
NOOFSSH	1.5171	1.5073	0.0837

To test hypothesis H1, that there is a positive association between company size and investor relations activity, a suitable measure of company size was needed. It was decided to use market capitalisation of equity. Using Datastream equity datatype market value (MV) the average market value for the year to 31st July 1991 was extracted for each respondent company (AV(MV)) using datachannel programme 900B. (Where there were two equities quoted the values were added together.) Full details of equity datatypes can be found in the 'Datastream Definitions' manual (Datastream, 1990).

To test hypothesis H2, the possible association between marketability and investor relations activity, a number of measures were obtained. Information extracted from the London Share Service listing of the Financial Times from the weekend of the seventh and eighth of September 1991 (Financial Times, 1991a) included the listing status (all respondents were fully listed) and the alpha or beta stock classification (ALPHA coded as, 1 = alpha, 2 = beta) of the respondent companies.

Data relating to marketability was also obtained on disc from the London Business School Risk Measurement Service (1991). The trading frequency (TRADFREQ) is the average time in days between trades. A zero therefore denotes a heavily traded share and a value higher than zero indicates a less frequently traded share. A categorical variable was also constructed indicating whether the shares were frequently traded or not (TFCAT). If TRADFREQ was zero TFCAT was coded as 0, if TRADFREQ was greater than zero TFCAT was coded as 1.

Overseas marketability was also relevant in testing hypothesis H2. The Stock Exchange Quarterly, Summer Edition, April - June 1991 (pp. 55-56) included a table of UK companies listed on overseas stock exchanges. From this table the number of overseas stock exchanges on which the respondent company had a quotation at the time of the survey (LISTINGS) was obtained. A categorical variable was also constructed, coded as 1 for any number of overseas listings and 0 for companies with a UK listing only (OSEALIST).

Table 8-4 (continued) Descriptive statistics for continuous independent variables

	MIN	MAX	Q1	Q3	TEST ¹
SIZE					
AV(MV)	22	19326	96	831	0.658
LOGTAVMV	1.3324	4.2861	1.9843	2.9195	0.976
MARKETABILITY					
LISTINGS	0.0000	12.0000	0.0000	0.0000	0.843
LOGLIST	0.0000	1.1139	0.0000	0.0000	0.975
TRADFREQ	0.0000	6.8000	0.0000	0.2000	0.730
LOGTRADF	0.00000	0.89209	0.00000	0.07918	0.910
RISK					
BETA	0.2000	1.5800	0.8550	1.1400	0.993
VARIAB	16.600	75.980	28.950	39.700	0.984
SQRTVAR	4.0743	8.7167	5.3805	6.3008	0.987
SPECRISK	12.300	73.860	19.075	31.200	0.933
LOGTSRSK	1.0899	1.8684	1.2805	1.4942	0.984
PROFITABILITY					
707ROCE	-411.39	184.29	9.91	24.29	0.643
711TPM	-217.80	83.81	8.30	19.09	0.741
716PTPM	-224.79	74.07	4.10	13.54	0.700
703ROSC	-144.70	240.00	6.38	19.65	0.806
GEARING					
731CGEAR	-665.95	1455.02	16.78	41.59	0.476
732IGEAR	-227.90	820.83	7.42	33.17	0.633
SQRTIG	0.316	32.386	15.343	16.161	0.696
733BR	-6.420	31.630	0.180	0.730	0.548
SQRTBR	0.7616	6.2153	2.6796	2.7803	0.651
TAKEOVER ACTIVITY					
TAKEOVER	0.0000	2.0000	0.0000	0.0000	0.980
LOGTAKEO	0.00000	0.47712	0.00000	0.00000	0.996
SHAREHOLDER DETAILS					
BFA%	0.000	72.310	0.040	4.975	0.735
NEGRBFA%	-1.0000	-0.0136	-0.9615	-0.1674	0.934
TOTSSH	0.00	82.80	0.00	26.15	0.971
SQRTOTSH	1.000	9.154	1.000	5.211	0.998
NOOFSSH	0.0000	7.0000	0.0000	3.000	0.993

NOTE 1: TEST = Minitab's correlation test for normality, a correlation of 1 indicates a perfectly normal distribution

To test hypothesis H3, data relating to risk was obtained from the London Business School Risk Measurement Service for July 1991. This included the beta or market risk (BETA), the sensitivity of the share price to general market movements. Also used were the variability or standard deviation (VARIAB) of the returns on the share and the specific risk (SPECRISK), the risk of non market related fluctuations in the share price.

To test hypotheses H4 and H5, Datastream was used to obtain a number of accounting numbers measuring profitability and gearing. These are termed 'company accounts items' and are given a Datastream code number which will be used in this analysis. The accounting period ending in 1991 was taken, if there was no such period the nearest available was taken. Data was downloaded using datachannel programme 900C. The ratios were:

703 Return on shareholders' capital (703ROSC)

707 Return on capital employed (707ROCE)

711 Trading profit margin (711TPM)

716 Pre-tax profit margin (716PTPM)

731 Capital gearing (731CGEAR)

732 Income gearing (732IGEAR)

733 Borrowing ratio (733BR)

The Company Accounts Definitions Manual (Datastream, 1992) provides detailed definitions of the ratios above.

To test hypothesis H6, the association between recent takeovers and investor relations activity, the tables of mergers and acquisitions in the Quality of Markets Quarterly Review and, subsequently, the Stock Exchange Quarterly were examined. The number of takeovers and mergers

Table 8-5 Spearman rank correlation for independent variables

	AV(MV)	LISTING	TRADFREQ	BETA
MARKETABILITY				
LISTING	0.497**			
TRADFREQ	-0.659**	-0.297**		
RISK				
BETA	0.034	0.110	-0.231**	
VARIAB	-0.381**	-0.088	0.048	0.624**
SPECRISK	-0.542**	-0.196**	0.200**	0.303**
PROFITABILITY				
707ROCE	-0.067	-0.010	0.088	-0.108
711TPM	0.115*	0.104	0.053	-0.223**
716PTPM	0.024	0.044	0.122*	-0.247**
703ROSC	0.042	0.069	0.048	-0.100
GEARING				
731CG	0.061	0.201**	-0.177**	0.253**
732IG	0.105	0.168**	-0.146**	0.292**
733BR	0.187**	0.161**	-0.204**	0.236**
TAKEOVER ACTIVITY				
TAKEOVER	0.016	0.101	-0.011	-0.005
SHAREHOLDER DETAILS				
BFA%	-0.416**	-0.238**	0.310**	0.105
TOTSSH	-0.353**	-0.161**	0.289**	0.007
NOOFSSH	-0.465**	-0.227**	0.346**	0.047
	VARIAB	SPECRISK	707ROCE	711TPM
RISK				
SPECRISK	-0.907**			
PROFITABILITY				
707ROCE	-0.130**	-0.089		
711TPM	-0.232**	-0.180**	0.174**	
716PTPM	-0.206**	-0.107	0.345**	0.862**
703ROSC	-0.195**	-0.166**	0.819**	0.214**
GEARING				
731CG	0.169**	0.058	-0.126**	-0.107*
732IG	0.203**	0.082	-0.503**	-0.126*
733BR	0.071	-0.053	-0.241**	-0.075
TAKEOVER ACTIVITY				
TAKEOVER	-0.062	-0.077	-0.005	-0.010
SHAREHOLDER DETAILS				
BFA%	0.228**	0.273**	0.126*	-0.022
TOTSSH	-0.287**	0.374**	-0.038	0.041
NOOFSSH	-0.281**	0.356*	-0.046	-0.050

by respondent companies in the period 1st August 1990 to 31st July 1991 (TAKEOVER) was obtained.

Hypotheses H7 and H8 propose an association between insider shareholdings, substantial shareholdings and investor relations activity. The number of shares held by the board, their family and associates (BFA%) and details of substantial shareholdings of over three per cent of equity was taken from Crawford's Directory of City Connections (Kinloch, 1992). The total percentage of substantial shareholdings was calculated (TOTSSH) and the number of such shareholdings (NOOFSSH). A categorical variable was also constructed showing whether or not there were any substantial shareholdings (SSHY/N). This was coded as 0 for no substantial shareholdings and 1 to denote the existence of substantial shareholdings.

To test hypothesis H9, an industrial classification for each respondent was taken from Datastream using the equity datatype INDC and datachannel programme 900B. The five letter alphabetic codes thus obtained were converted to a four way classification as per the Datastream manual 'Indices, interest and exchange rates' (Datastream, 1992, pp. IM-1 to IM-6):

- 1 Capital goods
- 2 Consumer goods
- 3 Other groups
- 4 Financial groups

8.6.2 Descriptive statistics for the independent variables

Descriptive statistics for the independent continuous variables were obtained using Minitab's DESCRIBE command (table 8-4). Outliers were investigated to ensure they were correct. This was a particular problem with the Datastream profitability and gearing ratios. The

Table 8-5 (continued) Spearman rank correlation for independent variables

	716PTPM	703ROSC	731CG	732IG
PROFITABILITY				
703ROSC	0.387**			
GEARING				
731CG	-0.298**	-0.109		
732IG	-0.397**	-0.471**	0.570**	
733BR	-0.232**	0.058	0.758**	0.519**
TAKEOVER ACTIVITY				
TAKEOVER	-0.020	0.014	0.076	0.032
SHAREHOLDER DETAILS				
BFA%	0.041	0.065	-0.102	-0.076
TOTSSH	0.074	-0.060	-0.086	0.052
NOOFSSH	0.001	-0.085	0.010	0.093

	733BR	TAKEOVER	BFA%	TOTSSH
TAKEOVER ACTIVITY				
TAKEOVER	0.035			
SHAREHOLDER DETAILS				
BFA%	-0.145*	0.029		
TOTSSH	-0.087	-0.024	0.120*	
NOOFSSH	-0.035	0.045	0.235**	0.869**

KEY:

** = Spearman correlation significant at the .01 level (two tail test)

* = Spearman correlation significant at the .05 level (two tail test)

small number of large negative profitabilities were correct and caused by loss making companies. The small number of large negative capital gearing and borrowing ratios were also correct in terms of the Datastream definitions. (These deducted intangible assets from the denominator leading to the possibility of negative gearing in extreme cases.)

For each of the variables a normality test, provided by the Minitab statistics package, was carried out (Minitab, 1989, pp. 4-8). Each data set was transformed by taking the square root (SQRT), the logarithm to the base ten (LOGT) and the negative reciprocal (NEGR) to discover which transformation gave a more normal distribution compared to the raw data. Where there were negative or zero values a constant integer was added to each data item to obtain a minimum value around one for the data set prior to transformation. This removed the problem of taking logarithms and square roots of negative numbers (Erickson and Nosanchuk, 1979, pp. 100-119). The best transformation, if one exists, is shown in table 8-4 adjacent to the raw data.

The Spearman rank correlation matrix was calculated (table 8-5). This shows the extent to which the selected independent variables are associated with each other.

It was noted that company size was quite highly positively correlated with marketability and the negative correlation with insider shareholdings and substantial shareholdings was also quite high. Also, company size was quite highly negatively correlated with specific risk. Previous empirical evidence on accounting disclosures leads one to expect that company size may be a dominant variable in explaining investor relations activity.

Strong correlation between pairs of independent variables might produce spurious associations between the independent variables and the dependent variables in univariate tests of association. To control for interaction effects and to assess the marginal explanatory power of different independent variables it was therefore decided to carry out a second stage of multivariate analysis (Forker, 1992, p. 120).

Table 8-6 Details of categorical independent variables

OSEALIST	CODE	COUNT	PERCENT
NONE	0	265	81.54
1-12	1	60	18.46
	N=	325	

ALPHA	CODE	COUNT	PERCENT
ALPHA	1	277	85.23
BETA	2	47	14.46
N/A	*	1	0.31
	N=	325	

TFCAT	CODE	COUNT	PERCENT
FREQUENT	0	206	63.98
LESS FREQUENT	1	116	36.02
	N=	322	
	*=	3	

Details of the categorical variables are shown in table 8-6. It can be seen that 60 out of 325 respondents had at least one overseas listing. There were 277 alpha stocks and 47 beta stocks. There were 206 companies with frequent trading and 116 with less frequent trading. Respondents were fairly evenly split between capital groups (96), consumer groups (99), other groups (84) and financials (46). Most companies (229) had at least one substantial shareholder.

8.7 Conclusions

This chapter has considered the problem of which methodology to adopt in order to investigate the area of company communications with analysts and fund managers. As a result of the voluntary and unregulated nature of the investor relations process there are no public written records of meetings and telephone conversations. The only evidence external to the firm may be the fact that a meeting has taken place on a certain date. It was decided that evidence should be obtained direct from the companies involved by means of a postal questionnaire.

The questionnaire was then designed, drafted, amended and finalised. The survey instrument was sent out on 1st August 1991.

Use of a questionnaire enabled a large number of companies to be contacted. The top 500 UK companies, as measured by market capitalisation, were sent a copy of the questionnaire. After the usual follow up procedures an excellent response rate of 61.6% was achieved.

In order to test the hypotheses set out in chapter seven it was necessary to collect data from other sources to represent the independent variables. This was done and the variables were investigated and subjected to transformation where necessary.

Table 8-6 (continued) Details of categorical independent variables

4WAYINDC	CODE	COUNT	PERCENT
CAPITAL	1	96	29.54
CONSUMER	2	99	30.46
OTHER	3	84	25.85
FINANCIAL	4	46	14.15
	N=	325	

SSH(Y/N)	CODE	COUNT	PERCENT
NO	0	95	29.32
YES	1	229	70.68
	N=	324	
	*=	1	

The following chapters nine to thirteen will discuss the results obtained from the analysis of the questionnaire responses and the subsequent testing of hypotheses.

Chapter 9 Organisation of the Investor Relations Function: Results and Analysis

9.1 Introduction

This chapter sets out the results of section one of the postal questionnaire survey. Section one relates to the organisation of the investor relations function (see appendix A). Descriptive statistics are set out and the data obtained is then used to test the hypotheses proposed in chapter seven. The detailed tables of results are set out in appendix B and summary tables of selected results are included in the main text of the chapter. Conclusions are then drawn based on the results of the statistical analysis.

The results presented in this chapter are only a part of the overall set of results describing company investor relations. The various hypotheses will be tested again in subsequent chapters using data from later sections of the questionnaire. The next chapter will consider the methods used by companies to communicate with analysts and the evaluation by companies of their investor relations effort.

9.2 Results of questionnaire survey: The organisation of the investor relations function

9.2.1 Director involvement in investor relations

Investor relations can be carried out by company personnel of varying degrees of seniority. However, it is generally considered to be desirable for the directors to be involved in managing and executing the programme. It was found that in fact all companies reported director involvement in investor relations and in 85% of cases either two, three or four directors participated (table B-1).

The percentage of the total directorate involved in the investor relations function was calculated. It was found that 20-50% of the

Table 9-1 Percentage of directorate involved in the investor relations function

	COUNT	PERCENT
0-20%	33	10.0
21-30%	95	28.7
31-40%	90	27.2
41-50%	57	17.2
51-100%	25	16.9
N=	331	
* =	6	
MEAN 0.38010	MEDIAN 0.33333	

directors were involved for 72% of the respondents (tables 9-1 and B-2).

The involvement of the individual directors in investor relations was investigated and it was found that the finance director was the most important contributor, being involved to a 'large extent' in 76% of cases. Investor relations can be considered to be a form of marketing of the company to investors. It was therefore interesting to note that while 61 companies reported the existence of a marketing director in only 9 cases was this director involved in investor relations. (table B-3)

Company directors have many demands on their time and the importance of investor relations can be measured by the number of director days devoted to it. The average number of days was 36.5 for all the directors, the minimum was zero days and the maximum 260 days. (tables 9-2 and B-4)

The significance of these results is that directors of large UK quoted companies do indeed devote substantial effort to investor relations, in accordance with the recommendations in the literature (see chapter four).

9.2.2 Organising and staffing the investor relations function

If a company views investor relations as important it is perhaps more likely to formalise arrangements. The survey established the organisational aspects of investor relations including whether or not there was an investor relations officer (table B-5) and the departmental structure (table B-6).

A minority of companies (48%) had no designated investor relations officer, 32% had one with IR as part of the responsibilities but only 66 companies (20%) had an IR officer where the main responsibility was investor relations. The job title, when provided, varied widely to include the terms 'investor relations', 'corporate affairs', 'public

Table 9-2 Number of working days in a year that directors devote to investor relations

	COUNT	PERCENT
0-30	169	66.27
31-60	53	20.78
61-90	15	5.88
91-120	10	3.92
over 120	8	3.14
N=	255	
*=	82	
MEAN 36.54	MEDIAN 30.00	

relations' and 'corporate communications'. In some cases the IR officer was stated as being the Finance Director or Company Secretary. The IR officer reported to the board or the chief executive or finance director in most cases. These results show that companies vary widely in their approach to managing the investor relations effort.

Companies were asked to state the number of staff working for the investor relations officer. The average here was 2.5 but in only 44 cases were the staff working mainly on investor relations (table B-7). These companies had investor relations establishments ranging from an IR officer on his own to a team of 13, with a mean of 2.7 support staff.

The annual gross salary bill for the investor relations officer and his/her staff was £107K on average for the 85 companies which answered the question. However, this included staff with duties other than investor relations. Only thirty companies with dedicated investor relations staff answered this question and the average was £111K with a maximum salary bill of £250,000 and a minimum of £40,000.

These results show clearly a wide variety of approaches among the largest UK quoted companies. In many cases, investor relations work is part of corporate affairs, corporate communications, public relations, finance or the company secretary's department. Relatively few companies maintain a staff of IR specialists. This is not to say that IR is not important, rather that it is not often carried out as a separate specialism but usually as part of a wider range of duties.

9.2.3 The investor relations budget and consultancy expenditure

The annual budget allocation, excluding staff costs, for the investor relations function was found to vary widely, from a low of £2,500 to a maximum of £1,000,000 with an average spend of £180,272. (72 respondents stated that the information was not available and 116 that it was not applicable, see tables 9-3 and B-8). This apparently wide variation may be less so in practice since certain types of

Table 9-3 Annual budget allocation for the investor relations function (excluding salary bill).

£	COUNT	PERCENT
up to 50,000	63	42.28
50,001-100,000	28	18.79
100,001-200,000	24	16.11
200,001-500,000	18	12.08
500,001 and over	16	10.74
N=	149	
*=	188	
MEAN 180,272	MEDIAN 100,000	

expenditure may be included under different budgets according to company policy. An example of this is the cost of the annual report. Several respondents marked their questionnaire to say the budget included the cost of the annual report whereas those reporting very small budgets are unlikely to have included the annual report. Companies which did not provide the information because it was 'not available' may have wished to retain confidentiality. Companies stating the question was not applicable presumably did not budget separately for investor relations.

Although most companies have an in-house investor relations capability they also usually retain the services of an external consultant. 264 (79%) of respondents reported that they did so. The costs incurred on consultants in the past 12 months varied from a low of £2,500 to a high of £700,000 with an average of £52,146. (49 respondents stated the information was not available and 71 stated it was not applicable, see tables 9-4 and B-9). The wide variation can be partly explained by the fact that some respondents were recently privatised utilities that had borne heavy costs associated with flotation. The smaller amounts can be explained either by companies carrying out all IR work in-house or by a desire to maintain a low profile, a point made by some companies on their questionnaires.

Since investor relations is concerned with all investor groups it was appropriate to find out what proportion of the external consultant's charges related to communications with analysts and fund managers. Responses were received from 135 respondents and the answers here varied widely from 0% (23 respondents) to 100% (5 respondents) (table B-10).

9.2.4 Investor relations policy

Some companies tend to formalise all procedures whereas others adopt a more flexible approach. In the case of investor relations where there is the potential for inappropriate action, such as breach of the Stock Exchange Listing Agreement, a formal policy may well be desirable.

Table 9-4 Cost incurred in past 12 months on external investor relations consultant

£	COUNT	PERCENT
up to 20,000	69	31.94
20,001-40,000	70	32.41
40,001-100,000	58	26.85
100,001-700,000	19	8.80
N=	216	
*=	121	
MEAN 52,146	MEDIAN 30,000	

However, only 64 respondents reported that their company had taken such action (table B-11). This is relevant to the concept of corporate governance, a clear statement from top management, in written form, should help prevent abuse of insider information via investor relations personnel. Those who oppose regulation could argue, however, that the market can deal with those companies which persistently favour selected parties via their investor relations function. Unusual price movements and transaction volume after private briefings will not go unnoticed in the markets.

9.3 Results of Hypothesis Testing

9.3.1 Introduction

Five continuous measures of effort devoted to investor relations were obtained from the data and used for hypothesis testing. These were the percentage of the directorate involved in managing or executing the investor relations function (%DIRINIR), the director involvement index (INDEX), the director days devoted to IR (DIRDAYS), the annual budget allocation for the IR function (BUDGET) and the cost incurred on an external investor relations consultant in the past 12 months (COSTS). The distribution of these variables was investigated for normality and it was found that the first two were reasonably normal (table B-12). Each variable was transformed by taking the square root, log to the base ten and the negative reciprocal. The correlation test for normality provided by the Minitab package was used to compare the various transformations with the raw data and the best transformation was selected for subsequent analysis where appropriate (table B-12).

The director involvement index (INDEX) was a constructed variable taking each director active in IR and scoring them from three if they were 'involved to a large extent' to one if they were 'involved to a minor extent' (tables B-3 and B-12). Since the level of measurement achieved for this variable is ordinal rather than interval the

appropriateness of parametric statistical tests was considered at the subsequent testing stage.

The correlation matrix for these variables is shown in table B-13. Although they are all measures of resources devoted to IR they are not highly correlated with each other. This is not surprising since investor relations is a complex activity, it cannot be measured easily. The data obtained is an attempt to obtain details of different dimensions of the activity. Thus no one item of data can represent the whole.

In addition to the continuous measures noted above there were two data items indicating the resources devoted to IR where the responses were in three ordered categories. A respondent was coded as a two if there was a dedicated investor relations officer, as a one if there was an investor relations officer whose work included other duties and as a zero if there was no designated investor relations officer (IROFFICER). A similar scoring system was applied to staff working for the investor relations officer (IRSTAFF). If they were dedicated mainly to IR this was scored as a two, where their work involved other duties as a one and where there were no such staff as zero.

Finally there were two simple yes/no ordinal measures of effort devoted to investor relations. These were whether or not there was a separate investor relations department (IRDEPT) and whether or not an external IR consultant was employed (IRCONS). It might be expected that companies taking investor relations more seriously would tend to have a separate department. Employing an external consultant is a cost incurred on IR and therefore denotes resources devoted to IR.

The four ordinal measures of resources devoted to IR were available for more companies than the IR budget (BUDGET) and consultant expenditure figures (COSTS). Respondents are generally more inclined to answer simple yes/no questions than to provide more detailed information. The questionnaire was designed to ensure that if companies were not prepared to reveal detailed information about their IR effort then at least an ordinal measure was usually obtained as an alternative.

In order to test the hypotheses proposed univariate analysis was first carried out between the collected data and the independent variables. Out of 337 responses twelve were anonymous so only 325 cases were used. Testing was carried out via the null hypotheses, of no association, H1 to H9 set out in chapter 7. Tests used included calculation of the significance of the Pearson correlation (table B-14) and the Spearman rank correlation (table B-15) when both dependent and independent variables were continuous. Two-tailed tests of significance were used here as the alternative hypotheses set out in chapter 7 did not specify a direction for the relationship between the variables. The Kruskal-Wallis test was used when one variable was continuous and the other categorical. This test is the nonparametric version of one way analysis of variance and it was considered more appropriate to use it here in view of the skewed distribution of some of the data (tables B-16 to B-20, B-23, B-24, B-27 and B-28). The chi-square test was used when both variables were categorical or ordinal (tables B-21, B-22, B-25 and B-26).

9.3.2 The percentage of the directorate involved in managing or executing the investor relations programme (%DIRINIR)

This data item relates to the involvement of directors in investor relations (table 9-1). It should be borne in mind that the size of the board is a factor that depends on company size and culture, some companies seem to prefer to have relatively large numbers of directors. Among the respondents the median number of executive directors was five but the maximum was 45. The number of non-executive directors ranged from none to 17 with a median of four. A small company with a small board may have a large percentage of directors involved through necessity, a large company may have a smaller percentage of directors involved but the total effort, eg in director days, may be more. The detailed results of the tests are shown in tables B-14, B-15 and B-16 in appendix B.

Hypothesis H1 is that there is no association between company size and the variable %DIRINIR. The natural expectation is that larger

companies will exert greater investor relations effort. However, smaller companies that are trying to grow and attract the attention of the City may make a special effort in investor relations.

The percentage of directors involved in IR (%DIRINIR) was negatively correlated to company size (LOGTAVMV) and this was significant at the .01 level for both the Pearson and the Spearman correlations (tables B-14 and B-15). The null hypothesis can therefore be rejected for this variable. It seems that smaller companies tend to have a higher proportion of the directorate involved in the IR function, this seems to agree with intuition for the reason stated above.

Hypothesis H2 is that there is no association between the marketability of a company's shares and the variable %DIRINIR. There were several measures of marketability used to test this hypothesis. These were the number of overseas listings (LISTINGS), trading frequency (TRADFREQ) and their categorical equivalents, whether or not there was an overseas listing (OSEALIST) and trading frequency category (TFCAT). Whether or not the stock was rated as an alpha or beta (ALPHA) was an additional measure of marketability.

The percentage of directorate involved in IR was negatively correlated with LISTINGS and the Spearman rank correlation was significant at the .05 level. Additionally the OSEALIST variable was significant at the .025 level. However TRADFREQ, TFCAT and ALPHA, measures of marketability within the UK were not significant.

The null hypothesis can be rejected, therefore, for the measures of world-wide marketability but not for measures of marketability in the UK.

Hypothesis H3 is that there is no association between stock market risk measures and the variable %DIRINIR. Variables from the London Business School risk measurement service were used. These were the beta or market risk (BETA), the variability (VARIAB) and the specific risk (SPECRISK).

The percentage of directors involved in IR (%DIRINIR) was not significantly associated with BETA. But the Spearman rank correlation was significant at the .05 level for both variability and specific risk and the association was positive. More risky companies had a higher percentage of directors involved in IR. It appears, therefore, that the null hypothesis can be rejected for 2 out of 3 risk measures.

Hypothesis H4 is that there is no association between company profitability and the variable %DIRINIR. Datastream ratios were used to test the hypothesis. Return on capital employed (707ROCE), trading profit margin (711TPM), pre-tax profit margin (716PTPM) and return on shareholders' capital (703ROSC) were used.

In respect of the percentage of directors involved in IR (%DIRINIR) there were no significant results. Accordingly, the null hypothesis cannot be rejected.

Hypothesis H5 is that there is no association between gearing and the variable %DIRINIR. Since gearing is associated with increased risk for shareholders it might lead to increased IR effort. However some highly geared companies might be in such difficulty that they decide to minimise IR effort since it would do no good. Datastream ratios for capital gearing (731CGEAR), income gearing (732IGEAR) and borrowing ratio (733BR) were used to test the hypothesis. There were no significant results in respect of percentage of directors involved in IR and thus the null hypothesis cannot be rejected.

Hypothesis H6 is that there is no association between recent takeover activity and the variable %DIRINIR. The natural assumption is that such action would increase IR activity although some companies might wish to minimise publicity on a takeover. The variable used was the number of takeovers listed in the Quality of Markets Quarterly in the year prior to the survey (TAKEOVER). In respect of the percentage of directors involved in IR there was no significant association and the null hypothesis cannot, therefore, be rejected.

Hypothesis H7 is that there is no association between the level of insider shareholdings and the variable %DIRINIR. A company more or

less controlled by a family or group of directors might be more inclined to secrecy or less keen to attract institutional investors. The variable used was the percentage of shares held by board family and associates (BFA%) taken from Crawford's Directory of City Connections.

In the cases of the percentage of directorate involved in IR (%DIRINIR) there was no significant association and the null hypothesis cannot therefore be rejected.

Hypothesis H8 is that there is no association between the level of substantial shareholdings and the variable %DIRINIR. In the UK, substantial shareholders are often institutional investor organisations but of course they may also be possible predators or private investors. The variables used were total percentage of substantial shareholdings (TOTSSH), number of substantial shareholdings (NOOFSSH) and whether or not there were any such shareholdings (SSH(Y/N)). There were no significant associations in respect of the percentage of directors involved in IR and so the null hypothesis cannot be rejected.

Hypothesis H9 is that there is no association between company line of business and the variable %DIRINIR. Trading conditions in certain lines of business might dictate one course of action in investor relations whilst companies in different businesses are not affected. For example, if one sector is doing very badly the companies involved might feel the need to reassure their shareholders and stress future prospects via enhanced IR effort. The variable used here was a four way industrial classification (4WAYINDC) extracted from Datastream and comprising category one, capital goods, category two, consumer goods, category three other groups and category four, financials. There was a significant result here in that financials had a lower percentage of directors involved in IR.

In concluding this section, it appears the percentage of directors involved in investor relations is not significantly associated with the independent variables for five of the hypotheses but that there are significant relationships in the case of hypotheses one, two,

three and nine. For reasons stated at the beginning of this section it is clear that %DIRINIR is not an absolute measure of investor relations effort, it only measures one aspect of the underlying variable. The other variables will now be considered in turn in order to build up a more complete picture of the success or otherwise of the initial hypotheses in explaining IR activity.

9.3.3 The director involvement index (INDEX)

The index of director involvement was constructed as an alternative measure to the percentage of directors involved in IR. The maximum possible score was 30 and the actual maximum scored was 18 with a minimum 4 and a mean of 8.022 (table B-12). Hypothesis testing in respect of H1 was carried out and it was found that there was a significant association at the .01 level between company size and INDEX for both the Pearson and Spearman correlations. The association was positive, larger companies had more director involvement as measured by INDEX and thus the null hypothesis can be rejected.

Testing hypothesis H2 yielded mixed results. The Spearman Rank correlation was significantly associated with INDEX at the .01 level for trading frequency. More frequently traded shares had a higher value for INDEX. The Pearson correlation gave a significant result at the .05 level for the log of the trading frequency. The Kruskal-Wallis test on the categorical version of the variable (TFCAT) was also significant at the .05 level.

In respect of the measures of world-wide marketability the Spearman Rank correlation was not significant but the Pearson correlation was significant at the .05 level. Companies with more listings had a larger director effort (INDEX). The Kruskal-Wallis test on the categorical version of the variable (OSEALIST) was also significant at the .05 level.

Overall it seems that the null hypothesis can be rejected and it can be concluded that companies with more marketable shares tend to have higher director involvement as measured by INDEX.

Moving to Hypothesis H3 there was no significant association between risk measures and INDEX so the null hypothesis cannot be rejected. Similarly the null hypothesis cannot be rejected for H4, H5, H6 and H7 as there were no significant associations between profitability, gearing and percentage of shares held by insiders.

Hypothesis H8 gave conflicting results. The Pearson correlation was significant at the .05 level for the transformed percentage of shares held by substantial shareholders (SQRTTOTSH) and for the number of substantial shareholdings. The association was negative so companies with more substantial shareholdings tend to devote less director effort to IR. The Spearman rank correlation for INDEX did not give significant results however. The null hypothesis cannot be rejected, therefore, in view of the fact that the nonparametric test is probably safer due to the nature of the dependent variable.

In respect of hypothesis H9 the null hypothesis cannot be rejected since the test of association between 4WAYINDC and INDEX is not significant.

It appears, therefore, that there is an association between the constructed variable for director effort (INDEX) and company size and marketability. Thus only two out of nine of the hypotheses yield a positive result.

9.3.4 Director days devoted to investor relations per annum (DIRDAYS)

The respondents' estimate of the number of director days spent in one year on investor relations is another measure of IR effort that was provided by 255 respondents (table 9-2). Hypothesis testing showed that this variable was positively associated with company size at the

.01 level for both Pearson and Spearman correlations. So the null hypothesis H1 can be rejected.

The null hypothesis H2 of no association between DIRDAYS and marketability was tested. In respect of marketability within the UK, the logged value of the trading frequency (LOGTRADF) gave a significant result at the .01 level, as did the ranked value (TRADFREQ). The categorical version of the variable (TFCAT) was significant at the 0.000 level. Alpha stocks also had more director days devoted to IR than beta stocks (significant at the .001 level). Thus the null hypothesis can be rejected and it seems that more marketable companies have more director days devoted to IR.

In respect of world-wide marketability, the Pearson correlation was significant at the .01 level for LISTINGS and the logged value LOGLIST but the Spearman correlation was not significant and nor was the test based on the categorical version of the variable (OSEALIST). Thus for world-wide marketability the null hypothesis cannot be rejected.

In the cases of hypotheses H3, H4, H5, H6, H7 and H8 the null hypothesis cannot be rejected since there were no significant results in the tests of association. However, there was a significant result at the 0.022 level for H9, industrial classification. It appears that capital goods companies and other groups devote most director time to IR followed by consumer groups with financials having the lowest value for DIRDAYS.

It seems then that larger companies devote more director days to IR and that these also have more marketable shares in the UK. The number of days also depends on the type of company. Director days are not, of course, the only staff days devoted to IR, some companies may make greater use of more junior staff and rely less on the directors.

9.3.5 The annual investor relations budget (BUDGET)

The annual budget allocation for the investor relations function was provided by 149 respondents (table 9-3). On testing the data the results were significant at the .01 level for all three measures of correlation of company size (H1) and BUDGET.

Hypothesis H2 is that there is no association between the marketability of a company's shares and the variable BUDGET. On testing, the result was significant at the .01 level for the Pearson correlation of the log of the trading frequency (LOGTRADF) and the Spearman correlation of TRADFREQ. The categorical version of the variable TFCAT gave a test result significant at the .000 level as did the ALPHA variable. Thus companies with more frequently traded shares had larger investor relations budgets.

In terms of world-wide marketability, the three correlation tests were significant at the .01 level and the categorical variable OSEALIST was significant at the .000 level. Thus companies with larger investor relations budgets (BUDGET) had more listings on overseas exchanges. The null hypothesis can, therefore, be rejected.

The link between risk and IR activity (H3) was not clearly established. The Spearman rank correlation of BUDGET and specific risk was negative and significant at the .01 level but the other results were not significant. The null hypothesis cannot be rejected on the basis of this evidence.

Hypothesis H4 is that there is no association between company profitability and the variable BUDGET. The Spearman rank correlation with BUDGET was negative for the return on capital employed (707ROCE) and significant at the .01 level. This was also the case for return on shareholders' capital (703ROSC) but significance was at the .05 level. There is an indication here that companies with higher IR budgets are less profitable in terms of return on capital but tests on profit margins and Pearson correlations for all profitability measures gave no significant results. Therefore, the null hypothesis cannot be rejected.

In the case of gearing (H5) the Pearson correlations gave no significant results but the Spearman correlation of income gearing (732IG) and BUDGET was positive and significant at the .01 level. This indicates that companies with higher income gearing had higher IR budgets but overall the null hypothesis cannot be rejected.

In respect of recent takeover activity (TAKEOVER) the Pearson correlation was significant at the .05 level whereas the Spearman was not. Testing the null hypothesis H6 does not, therefore, yield a clear result.

Hypothesis H7 relates to insider shareholdings (BFA%). The tests here showed a significant association at the .01 level and the correlations were negative. Thus investor relations budgets decrease with increasing shareholdings by insiders. The null hypothesis can, therefore, be rejected.

Testing the null hypothesis H8 showed a significant result at the .01 level for the transformed total of substantial shareholdings (SQRTTOTSH) and the number of substantial shareholdings (NOOFSSH) for both the Pearson and Spearman correlations. The null hypothesis can be rejected and it appears that IR budget decreases with increased substantial shareholdings. The reason for this could be that having attracted substantial investors the company is satisfied but in reality it will still keep them informed. Since smaller companies are more likely to have substantial shareholders the reason for the result could be the influence of a third variable, company size. If a company is relatively small it will be easier for an institutional investor to break the 3% disclosure barrier and be disclosed as a substantial shareholder.

In respect of hypothesis H9 there was no significant association between BUDGET and 4WAYINDC so the null hypothesis cannot be rejected.

Overall the tests of the variable BUDGET have produced more significant results than the previous variables. The investor relations budget increases with company size and the marketability of

the shares whereas it decreases as insider and substantial shareholdings increase.

9.3.6 The cost incurred in the past twelve months on an external investor relations consultant (COSTS)

This variable was provided by 216 respondents (table 9-4) and is a measure of expenditure on investor relations. It does not, however, give any indication of total expenditure since different companies will have different splits between work carried out in-house and by the external consultant. The Pearson correlation between BUDGET and COSTS is 0.459 (table B-13).

Hypothesis H1 is that there is no association between company size and the variable COSTS. The correlation relating company size to COSTS was positive and significant at the .01 level for both Pearson and Spearman correlations. The null hypothesis that there is no association between company size and IR activity can be rejected.

Hypothesis H2 is that there is no association between the marketability of a company's shares and the variable COSTS. It was found that COSTS increased with the marketability of shares. Correlation of the logged trading frequency (LOGTRADF) with COSTS was significant at the .01 level. The rank correlation of COSTS and the variable (TRADFREQ) gave a significant result at the .01 level. The categorical variables TFCAT and ALPHA gave a significant result at the .000 level in the Kruskal-Wallis test. In respect of world-wide marketability the number of listings gave a positive correlation significant at the .01 level for all three tests and the categorical variable OSEALIST gave a result significant at the .000 level. The null hypothesis can be rejected and there appears to be a positive link between expenditure on external IR consultants and marketability of shares.

Hypothesis H3 is that there is no association between stock market risk measures and the variable COSTS. The Spearman rank correlation

of COSTS and specific risk was significant at the .05 level but the Pearson correlation was not. Variability and beta did not appear to be associated with costs. It seems that the null hypothesis cannot be rejected.

Testing null hypothesis H4 (profitability) yielded no significant results and so the null hypothesis cannot be rejected.

Hypothesis H5 is that there is no association between gearing and the variable COSTS. The Pearson correlation coefficients were not significant but the Spearman rank correlations for capital gearing and borrowing ratio were positively related to costs and significant at the .05 level. In view of the lack of normality of these variables, even with transformation, the nonparametric test is probably safer and it can be concluded that more highly geared companies tend to spend more on external IR consultants.

Hypothesis 6 (takeover activity) gave no significant results on testing and thus the null hypothesis cannot be rejected.

In respect of H7, shareholdings by insiders, there was a negative correlation, significant at the .01 level, for both the Pearson correlation of the transformed variable NEGRBFA% and the rank correlation. The null hypothesis can be rejected and it can be concluded, therefore, that companies with more shares held by insiders tend to spend less on external IR consultants.

There were negative correlations between the variables relating to substantial shareholdings and these were all significant at the .01 level. The Kruskal-Wallis test on the categorical variable SSH(Y/N) was also significant at the .01 level. In respect of hypothesis H8 then, the null hypothesis can be rejected and it appears that as substantial shareholdings increase external IR consultancy costs decrease.

The test of association between line of business and COSTS did not yield a significant result and so the null hypothesis H9 cannot be rejected.

Overall, the pattern of results for COSTS and the 9 hypotheses is fairly similar to that for BUDGET. There is a clear link between COSTS and company size, marketability and shareholder profile with a somewhat weaker association with capital gearing.

9.3.7 The existence of a designated investor relations officer (IROFFICER)

Companies were divided into three ordered categories, those with no IR officer (160), those with an IR officer whose work involved other duties (102) and those with a dedicated IR officer (63). The presumption here is that this variable provides an insight into overall IR effort since the existence of an IR officer implies that the company is serious about the activity.

The Kruskal-Wallis test was used to test the hypotheses against the continuous variables (table B-23) and the chi-square test was used with the categorical variables (table B-21).

The result for testing the null hypothesis H1 (size) is significant at the .000 level so it appears that larger companies are more likely to have a dedicated IR officer and the null hypothesis can, therefore, be rejected.

The results for testing the null hypothesis H2 (marketability) are significant at the .000 level for trading frequency (TRADFREQ), at the .001 level for the categorical variable TFCAT and the .01 level for ALPHA. Thus companies with more marketable shares tend to have a dedicated investor relations officer. In respect of world-wide marketability the test for LISTINGS is significant at the .000 level and the categorical version OSEALIST at the .001 level. Thus the null hypothesis can be rejected and there is a clear association between the existence of an IR officer and marketability.

Testing the null hypothesis H3 (risk) gives a significant association between IROFFICER and specific risk at the .004 level. The more risky

companies are less likely to have an IR officer. There is no significant result for beta or variability.

Testing the null hypotheses H4 (profitability), H5 (gearing) and H6 (takeover activity) did not yield any significant results and therefore the null hypotheses cannot be rejected.

Testing the null hypotheses H7 and H8 gave results that were significant at the .000 level in the Kruskal-Wallis tests. The firms with dedicated investor relations officers tended to have fewer shares held by insiders and substantial shareholders. The null hypotheses can therefore be rejected.

In respect of industrial classification (H9) the chi-square test was significant at the .02 level and it appears that firms in 'other groups' were more likely to have a dedicated IR officer whereas firms in 'capital goods' were less likely to have one.

Overall the pattern of results for the categorical variable IROFFICER is similar to that for BUDGET and COSTS. The important explanatory variables appear to be company size, share marketability and shareholder profile. Specific risk is also important in this case.

9.3.8 The existence of dedicated investor relations staff (IRSTAFF)

Companies were divided into categories depending on whether staff working for the investor relations officer were dedicated to IR (43), whether their work involved other duties (107) or whether there were no such staff (175).

It was found that large companies tended to have dedicated IR staff. This was significant at the .000 level so the null hypothesis H1 can be rejected.

In respect of marketability (H2) there were significant results at the .000 level for LISTINGS and TRADFREQ the continuous variables and at

the .001 level for TFCAT and OSEALIST and ALPHA, the categorical variables. Companies with more marketable shares were more likely to have dedicated investor relations staff and the null hypothesis can, therefore, be rejected.

In the case of risk (H3) the Kruskal-Wallis test was significant at the .000 level for specific risk and IRSTAFF. Beta and variability were not significant.

For hypotheses H4 (profitability), H5 (gearing) and H6 (takeover activity) the null hypothesis could not be rejected since there were no significant results.

Companies with fewer shares held by insiders (BFA%) and substantial shareholders (TOTSSH) tended to have dedicated IR staff. This was significant at the .000 level so the null hypotheses H7 and H8 can be rejected.

As for industrial classification the chi-square test was significant at the .05 level and financials were more likely to have dedicated IR staff than capital goods companies. The null hypothesis H9 can, therefore, be rejected.

Once again the tests for this variable (IRSTAFF) show a similar pattern with company size, share marketability and shareholder profile showing strong results. Specific risk seems to be associated with the variable IRSTAFF as it is with IROFFICER.

9.3.9 The existence of a separate investor relations department (IRDEPT)

This categorical variable (IRDEPT) divided respondents into those companies with a separate investor relations department (30) and those without (295). Hypothesis H1 is that there is no association between company size and the variable (IRDEPT) and hypothesis H2 is that there is no association between the marketability of a company's shares and

the variable (IRDEPT). On testing, company size (H1) was significant at the .000 level and marketability (H2) was significant at the .000 level for LISTINGS, at the .001 level for TRADFREQ and OSEALIST although ALPHA was not significant. The null hypothesis can be rejected for H1 and H2 as it seems that larger companies with more marketable shares have a greater tendency to have separate IR departments.

The null hypothesis cannot be rejected for H3 (risk), H5 (gearing), H6 (takeover activity), H8 (substantial shareholdings) and H9 (industrial classification). The statistical tests of these variables with IRDEPT did not yield any significant results at at least the .05 level.

There was one significant result for H4 (profitability) as return on shareholders' capital gave a Kruskal-Wallis test result that was significant at the .047 level. More profitable companies were more likely to have a separate IR department. Since the other three measures of profitability did not give a significant result the null hypothesis cannot be rejected.

This variable (IRDEPT) gave fewer positive results in the hypothesis tests than some of the other measure of IR activity. The reason is possibly due to the small number of companies in category one, those with a separate department. However the basic pattern is not in conflict with earlier results since the predominance of size and marketability as significant variables is borne out.

9.3.10 The existence of an external investor relations consultant (IRCONS)

The majority of respondents (256) had an external IR consultant, only 68 did not. None of the hypothesis tests yielded a significant result apart from H9 (industrial classification). The chi-square test was significant at the .001 level and it appeared that financial companies were less likely to have an external consultant whereas 'other groups'

were more likely to have one. The null hypothesis can, therefore, be rejected.

This variable was obviously less successful in discovering associations between IR activity and the explanatory variables. It seems that most companies in the top 500 have external consultants and the minority that do not are not significantly different in terms of the variables under test.

9.4 Multivariate analysis of data on organisation of investor relations

In addition to the univariate tests of association it was decided to carry out multivariate analysis using the dependent variables INDEX, DIRDAYS, BUDGET and COSTS. (%DIRINIR was not used since the significant univariate results obtained were fewer in number and in the opposite direction to the results for the other variables.) The Minitab stepwise regression command was used with 17 predictor variables, LOGTAVMV, LOGLIST, LOGTRADF, BETA, SQRTVAR, LOGTSRSK, 707ROCE, 711TPM, 716PTPM, 703ROSC, 731CGEAR, SQRTIG, SQRTBR, LOGTAKEO, NEGRBFA%, SQRTOTSH and NOOFSSH. The transformed version of the independent variable was used where appropriate. The routines were also run using raw data for the independent variables but better results were obtained with the transformed variables. The routines were also run using the transformed version of the dependent variables but better results were obtained with the raw data.

Variables were entered into the equation if the F-statistic was greater than four, the default value set by the Minitab package (Minitab Inc, 1989 p.7-15-7-17). The square root of the F-statistic is the t-statistic. Using an F-statistic of four as a criterion for entry into the regression equation is approximately equivalent to a probability for the t-ratio of 0.05 (Norusis, 1990 p.278). The first step adds the variable with the largest F-statistic, this is equivalent to choosing the variable with the largest partial correlation. Once useful variables had been identified using the

Table 9-5 Significant results for data on organisation of investor relations with company specific variables

	INDEX	DIRDAYS	BUDGET	COSTS
SIZE AV(MV)	A**	A**	A**	A**
MARKETABILITY LISTINGS TRADFREQ	*	**	A** **	A** **
RISK BETA VARIAB SPECRISK			A A**	B A*
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	B A	B	** *	
GEARING 731CG 732IG 733BR			**	B* B*
TAKEOVER ACTIVITY TAKEOVER			B	
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH		B B	B* ** **	B** B** **

KEY:

** = Spearman rank correlation significant at at least the 0.01 level (two tail test)

* = Spearman rank correlation significant at the 0.05 level (two tail test)

A = variable enters into regression equation when F-statistic is 4 (t-statistic is 2)

B = variable enters into regression equation when F-statistic is 2 (t-statistic is 1.04)

stepwise routine, multiple regression was carried out to obtain more detail.

In respect of the director involvement index (INDEX) only company size (LOGTAVMV) and pre-tax profit margin (716PTPM) entered the equation which had an R-square of only 4.6% (table B-29 and B-30). For director days (DIRDAYS) only size entered the equation and R-square was 4.0% (table B-31 and B-32). In respect of annual budget allocation for investor relations (BUDGET) the company size (LOGTAVMV), specific risk (LOGTSRSK), number of overseas listings (LOGLIST) and BETA entered the equation and R-square was 38.7% (table B-33 and B-34). Finally, for the cost of an external consultant (COSTS) the variables entering the equation were LOGLIST, LOGTAVMV and LOGTSRSK with an R-square of 20.7% (table B-35 and B-36).

There are several reasons why the variables identified as significant in the univariate analysis are not the same as those found by stepwise regression. The set of missing values is different for the pairwise univariate tests and the multivariate tests. The independent variables obtained from Datastream and London Business School had missing values for certain companies, this problem is compounded in the multivariate tests. The univariate tests show association but do not show causation and a third variable may be responsible for apparent but spurious correlations. There are also problems associated with running the multiple regression model if the data is not appropriate, this will be considered later.

The stepwise regression routine was run for a second time with the value of critical F-statistic reduced from four to two in order to see which variables would be entered into the equation next. With an F-statistic of four the required t-statistic is two but with the F-statistic reduced to two the required t-statistic is reduced to 1.4 and more variables can enter the equation. The probability for the t-statistic is higher than 0.05 but an exact equivalence cannot be stated. The actual significance level associated with the F-statistic is difficult to compute since it depends on both the number of cases and variables and the correlations between independent variables (Norusis, 1990 p.278) The F-statistic of two was found to be

suitable since only a small number of extra variables entered the equation in most cases when compared with the stepwise regression using an F-statistic of four.

In the case of INDEX one further variable 711TPM entered the equation. For DIRDAYS three more variables entered, NOOFSSH, SQRTOTSH and 707ROCE. In the case of BUDGET, two more variables LOGTAKEO and NEGRBFA% entered the equation. For the COSTS regression five more variables entered in. These were SQRTOTSH, NEGRBFA%, SQRTVAR, SQRTBR and 731CGEAR (tables B-37 to B-40).

The results of the stepwise regression routines were compared with the univariate Spearman rank correlation results (table 9-5). It can be seen that company size is the dominant factor for both types of test. Rejection of the null hypothesis H1 is therefore supported by the evidence.

The results are in agreement for overseas listings but not for trading frequency. Since trading frequency is strongly correlated with size (Spearman rank correlation 0.659) this would explain why the univariate tests show significant association while the TRADFREQ variable does not figure in the regression equations. Rejection of the null hypothesis H2 is therefore supported for BUDGET and COSTS for overseas marketability (LISTINGS) but not for marketability within the UK.

The table shows clearly for risk measures that specific risk is important for BUDGET and COSTS. However the sign of the coefficients is positive for the regression but negative for the univariate test the Spearman rank correlation. It appears that once the effect of size has been removed by using regression then BUDGET and COSTS increase with specific risk. This is further support for rejection of the null hypothesis H3.

In respect of tests of null hypothesis H4, profitability measures appearing in the regressions do not agree with the results of the univariate tests. There is some agreement for the gearing measures,

hypothesis H5, since for COSTS the univariate and multivariate tests agree. This indicates that as capital gearing increases so do COSTS.

Rejection of null hypothesis H6, takeover activity, was not supported by the univariate tests. TAKEOVER only appears in the equation for BUDGET at the weaker level in the stepwise regressions.

Tests of hypothesis H7, insider shareholdings, show agreement for univariate and stepwise regression although the variable (BFA%) only enters in at the weaker level. BUDGET and COSTS decrease as BFA% increases.

Tests on substantial shareholdings, hypothesis H8 (TOTSSH and NOOFSSH) show conflicting results when comparing the univariate and multivariate tests. This may be due to the fact that company size is highly negatively correlated with TOTSSH (Spearman rank correlation - 0.353) and NOOFSSH (Spearman rank correlation -0.465).

In view of the fact that BUDGET was the dependent variable showing the highest R-square it was decided to carry out a multiple regression using all the independent variables mentioned above plus a set of dummies to represent the 4-way industrial classification. The results are shown in Table B-41. The results are somewhat different from those of the stepwise routine since only company size (LOGTAVMV) has a p less than .05. This is in agreement with the overall result that size is the dominant explanatory variable. Entering the industrial classification dummies into the equation improved the R-square (adjusted for ties) from 38.2% to 39% but a partial F-test showed that this change was not significant at the .05 level.

Due to the problem of missing values for both the dependent and independent variables only 128 cases were used out of 325. There were 20 cases where the X value gave the observation a large influence and 12 cases where the observation had a large standardised residual. No warnings of ill-conditioned data (multicollinearity or small coefficient of variation) were issued by Minitab. The residuals were plotted against the fitted values and the actual values of BUDGET. There seemed to be a tendency for the residuals to increase as BUDGET

increased and vice versa. This would indicate that the existing model should be modified or that there is another independent variable or variables missing from the model. The correlation test for normality of residuals gave a value of 0.971. Plotting the residuals in turn against the predictor variables showed up no clear patterns or trends. Taking the log of the dependent variable BUDGET did not improve the result, nor did taking the raw value of the predictor variables rather than the mixture of raw and transformed variables used in Table B-41. It appears therefore that missing variables, not specified in the original hypotheses, are responsible for the lack of fit but this is probably compounded by the fact that there is no one measure of investor relations activity and that the data used here as the dependent variable is not ideal. The personal characteristics of the company directors and management style may be qualitative variables affecting the investor relations effort but they cannot be incorporated into the regression model.

9.5 Conclusions

This chapter has set out the results of the first part of the questionnaire relating to the organisation of the investor relations function. Tests of association were performed in order to investigate the hypotheses set out in chapter seven. Data items relating to the amount of effort devoted to investor relations were compared with the explanatory or independent variables. Multivariate analysis was also carried out.

Overall it was found that company size (hypothesis H1) was a significant variable in univariate tests of association of the amount of effort devoted to investor relations. If investor relations is considered to be a form of voluntary information disclosure this result can validly be compared with literature using a disclosure index to measure disclosure in company accounts. Cerf (1961), Singhvi and Desai (1971), Buzby (1975), Chow and Wong-Boren (1987), Cooke (1989), Roberts and Gray (1988a), Gray and Roberts (1989) all report a

positive association between company size and various types of information disclosure.

Marketability of a company's shares was found to be positively and significantly associated with investor relations effort (hypothesis H2). Comparing this result to the disclosure index literature, a similar association was obtained by Singhvi and Desai (1971) but Buzby (1975) found that disclosure was not linked to listing status. More recently Cooke (1989) found a significant association between disclosure and quotation status. In a different area of enquiry, Hirst (1988) found that marketability was not related to stockbroker research.

In general IR effort was negatively associated with specific risk in the univariate testing, less risky companies tended to have greater effort devoted to IR. The results of the multiple regression analysis however changed the sign indicating that, once the effect of size had been removed, more risky companies tended to devote more effort to IR. The other risk measures, beta and variability, gave few significant results (hypothesis H3). This can be compared with the conclusions of Firth (1984) who found no significant association between amounts of disclosure and systematic risk (BETA), unsystematic (specific) risk or variance of return. Thomas (1986) found that risky companies tend to make some reference to future profits in their interim reports whereas less risky companies do not do so.

There is some literature attempting to model the analyst following and institutional ownership. This typically includes risk measures as possible explanatory variables. Bhushan (1989b) found a positive association between return variability of the firm and the number of analysts following a firm. O'Brien and Bhushan (1991) found that analysts tended to avoid volatility and that institutions seemed to prefer firms whose risk had increased.

The results of this study in respect of hypothesis H3 can be seen to add to the body of previous research evidence indicating that risk has some relation to company behaviour in the capital marketplace. There

are several different measures of risk and a clear picture has not yet emerged.

In respect of profitability (hypothesis H4) there were very few significant results linking the various profitability measures to IR effort. This can be compared with the results of Singhvi and Desai (1971) who found that less profitable firms disclosed inadequate information in accounts. In conflict with this result Belkaoui and Kahl (1978) found that disclosure significantly decreased as profitability increased. Roberts and Gray (1988a) found no significant association between profitability and accounts disclosure after controlling for company size. Gray and Roberts (1989) found that voluntary information disclosure was significantly associated with profitability. Beattie and Jones (1992) found that companies with 'good' performance are significantly more likely to use graphs in their annual reports.

The lack of firm conclusions from the tests carried out on investor relations data reflects the varied results achieved by previous researchers. Perhaps this lack of a link between company behaviour and accounting performance stems from the various problems associated with the validity of accounting numbers and the subjectivity involved in measuring accounting profit. Alternatively, it may be that companies cannot be expected to behave consistently if their profits are high or low. Some companies with high profits may be keen to spread the news, other may wish to keep a low profile to avoid predators or adverse comment from socialists.

Gearing (hypothesis H5) was not linked with IR effort in most of the tests carried out. This can be compared with the results of Belkaoui and Kahl (1978) who found that capital gearing was significantly negatively associated to disclosure. Chow and Wong-Boren (1987) found no significant effects due to financial leverage on voluntary disclosure. Roberts and Gray (1988a) found that gearing was not a factor explaining disclosure whereas Gray and Roberts (1989) noted that gearing was significant in one test (Mann-Whitney) but not in another (Chi-Square) when explaining voluntary disclosure.

Once again it can be argued that gearing is an accounting number with measurement subjectivity affecting its usefulness. This could explain the apparent lack of association between investor relations effort and what is supposedly an important accounting ratio for analysts.

Another explanation is that there is no reason to believe that firms will behave in a consistent way if their gearing is high or low. Some firms with high gearing may wish to keep quiet about it while others may make a great effort to explain it to analysts.

Recent takeovers by the respondents (hypothesis H6) were found not to be associated with investor relations activity. It appears that the small number of respondents (12 out of 325) who had carried out a takeover were not significantly different in their investor relations effort. This may be due to the regulations of the City Panel on Takeover and Mergers curbing the extent to which companies may communicate at such times.

The number of shares held by board family and associates (hypothesis H7)) was found to be significant for BUDGET and COSTS. The relationship was one of negative correlation. Comparing this with previous results, Bhushan (1989b) found there was a significant negative relationship between the number of analysts following a firm and the percentage of insider shareholdings. Forker (1992) found that the proportion of the firm owned by management was not a significant predictor for the quality of option disclosure in the accounts. The results of this study indicate that companies that are more closely held by directors are less likely to devote funds to investor relations which seems in accordance with intuition. Forker, however, hypothesised that the proportion of equity owned by management bears an indeterminate relation to disclosure quality because of 'opposing forces' operating.

The amount and number of substantial shareholdings (hypothesis H8) was found to be significant and negatively correlated with BUDGET and COSTS. Substantial shareholdings are those over 3% as required to be disclosed by the London Stock Exchange listing agreement. They consist of both institutional and private investors (other than directors). This result conflicts with Bhushan (1989b) who found that

the number of institutions investing and the percentage held by institutions was positively associated with the number of analysts following a US company. The different result could be due to country specific differences. The US stock market is far larger and the top companies are relatively larger than top UK companies. Bhushan's data for the explanatory variable was based on holdings of at least 1% whereas this survey had a cut-off of 3%.

Finally, it was found the association with the four way industrial classification (hypothesis H9) was significant for %DIRINIR, DIRDAYS and BUDGET but not for INDEX and COSTS. It was significant for IROFFICER, IRSTAFF and IRCONS but not for IRDEPT. This set of results can be compared with Belkaoui and Kahl (1978) who found that industry was a significant indicator of disclosure in accounts and Gray and Roberts (1989) who found industrial classification was significant and that the capital goods sector was positively associated with more disclosure. Bhushan (1989a) used a 6 category industrial classification and concluded that a firm's industry influences its extent of analyst following and also found that there are differences across industries in the marginal information content of earnings announcements. The results of this study are therefore, broadly, in line with previous studies in terms of overall outcome but the different versions of the explanatory variable prevent comparison of results for specific industries.

The multivariate analysis subsequent to the univariate testing bore out the finding that company size was the dominant explanatory variable for aspects of the organisation of investor relations. Some results conflicted with the univariate test results although the importance of overseas listings, specific risk and insider shareholdings was confirmed.

In conclusion it should be noted that this is the first study to attempt to link investor relations activity to explanatory variables. It is part of the larger literature on disclosure but studies of disclosure in company accounts are somewhat different to the current study. Similarly, the literature attempting to model analyst

following in terms of explanatory variables has a different focus i.e. analyst activity rather than investor relations activity.

Chapter 10 Companies' Assessment of and Execution of the Investor Relations Programme: Results and Analysis

10.1 Introduction

This chapter sets out the results of sections two and three of the questionnaire. Section two related to surveys of City opinion about a company. Section three provided an overview of the methods used by respondents to communicate with analysts and fund managers (see appendix A). Descriptive statistics are set out and the data obtained is then used to test the hypotheses proposed in chapter seven. Detailed tables of results are set out in appendix C and selected summary results are incorporated in the chapter. Conclusions are then drawn based on the results of the statistical analysis.

The previous chapter dealt with the organisation of the investor relations function and considered several variables, such as investor relations budget (BUDGET), which measured different dimensions of a company's investor relations effort. This chapter introduces new variables and continues the investigation started in chapter nine.

10.2 Results of questionnaire survey: Assessing the contribution of the investor relations function

There are several market research organisations that offer specialised surveys of City opinion about a company. Companies are naturally concerned about their image in the City and these surveys can provide an insight as to whether the investor relations programme is effective. It was found that 144 out of 337 (57%) respondents had commissioned a market research survey in the past. The actual number of surveys varied from nil to six in the past twelve months and from nil to 22 in the previous four years (tables C-1 and C-2).

It was found that the vast majority of respondents had the surveys carried out by an external firm. Only two companies used in-house

staff, and nine companies used both in-house staff and external consultants.

The companies' reasons for commissioning the most recent surveys were investigated (tables C-3 to C-6). The most important reason was to assess the success of the investor relations programme. This reason was considered to be of at least some importance for 88% of the 139 companies answering the question. General interest was the next most important reason and was considered important by 84% of companies. Only 29 companies had commissioned surveys in order to assess the need for setting up an investor relations function. This is not surprising since most respondents had some sort of investor relations function as reported in table B-6.

10.3 Results of questionnaire survey: Execution of the investor relations programme

Respondents were asked about the methods used to communicate with analysts and the relative importance of these different means of communication (appendix A). Respondents were asked to rank the five listed methods of communication as of 'high importance', 'moderate importance', 'minor importance or 'not at all - not done'. Overall, one-to-one meetings with analysts and fund managers were seen as the most important activity, this was followed by answering telephone queries, meeting delegates from different organisations and providing feedback on analysts' reports. Finally, mailing information to analysts and fund managers was seen as least important of the listed activities (tables C-16 to C-20).

A number of companies mentioned other activities on the questionnaire, the most important of these was site visits which was mentioned by thirty respondents.

It is clear from the results of the survey that companies view personal contacts with analysts and fund managers as important and

that merely sending out a copy of the annual report and other official information is not considered a satisfactory course of action.

The anonymous responses were deleted before further analysis was carried out reducing the number of cases from 337 to 325. Table C-21 compares the average importance of the various activities and the Wilcoxon matched-pairs signed ranks test was used to assess the significance of differences between the rankings. Placing the activities in order of importance, individual meetings were significantly more important than telephone queries ($p = 0.000$). There was no significant difference between telephone enquiries and general meetings. General meetings were significantly more important than feedback provision ($p = 0.000$) which was more important than mailings ($p = 0.000$).

If companies view an activity as important they are likely to devote resources to it. The answers discussed above can therefore be used as a device to measure IR effort, the underlying variable. In order to obtain an ordinal measure of effort devoted to investor relations the total of the number of activities undertaken and weighted according to their importance (3 = high importance, 2 = moderate importance 1 = minor importance) was calculated. This constructed variable (ACTIVITY) was normally distributed (table C-22).

10.4 Results of hypothesis testing

10.4.1 Introduction

Four continuous measures of effort devoted to investor relations were obtained from the data and used for hypothesis testing. These were the number of surveys of City opinion in the past 12 months (SURVEYS(A)), the number of surveys more than 12 months ago but less than 5 years ago (SURVEYS(B)) and the total number of surveys in the past five years (SURVEYS) which was the sum of the previous two variables. These variables were tested for normality (table C-10) and the best transformation was calculated and displayed beneath the

details of the raw data. In the case of SURVEYS(A) this was the square root whereas log to the base ten was superior for SURVEYS(B) and SURVEYS. The correlation between these three variables is shown in table C-9. The Spearman rank correlation between SURVEYS(A) and SURVEYS(B) is negative indicating a lack of consistency in survey commissioning by companies over time.

The investor relations activity index (ACTIVITY) was calculated by taking each investor relations activity of the company and scoring them from 3 if they were considered of 'high importance' to 2 if of 'moderate importance' and 1 if of 'minor importance' (table C-22). It was found that ACTIVITY was normally distributed. Since the level of measurement achieved for this variable is ordinal rather than interval the appropriateness of parametric statistical tests was considered at the subsequent testing stage. The individual components of ACTIVITY, that is, the importance of the five listed methods of communicating with analysts, were also investigated.

In addition to the four continuous measures of effort devoted to investor relations there was one categorical measure i.e. whether or not any surveys of City opinion had been commissioned (SURVEYS(Y/N)). Out of 325 non-anonymous respondents 136 had had surveys carried out at some time in the past. Companies which had not done so were presumably less concerned with their image in the City than those who had.

In order to test the hypotheses univariate analysis was first carried out between the collected data and the independent variables. Testing was carried out via the null hypotheses, of no association, H1 to H9 set out in chapter 7. Tests used included calculation of the significance of the Pearson and Spearman correlations when both variables were continuous. Two-tail tests of significance were used here as the alternative hypotheses set out in chapter 7 did not specify a direction for the relationship between the variables. The Kruskal-Wallis test was used when one variable was continuous and the other categorical. The chi-square statistic was calculated when both variables were categorical or ordinal.

10.4.2 Whether or not the company had commissioned surveys (SURVEYS(Y/N))

The data item SURVEYS(Y/N) can be treated as a categorical measure indicating effort devoted to investor relations. The hypotheses proposed in chapter seven and tested previously in chapter nine against variables relating to organisation of investor relations will now be considered. The hypotheses were tested using the Kruskal-Wallis test (table C-8) for the continuous independent variables and the chi-square test for the categorical independent variables (table C-7).

On viewing table C-8 it can be seen that larger companies were more likely to have commissioned surveys than smaller ones. The null hypothesis H1 can therefore be rejected at the 0.000 level of confidence.

Similarly companies with more marketable shares as measured by LISTINGS and TRADFREQ were more likely to have commissioned surveys at the .000 level of confidence. This lends support to rejection of the null hypothesis H2. In addition, the results for the categorical measures of marketability were significant at the .001 level (table C-7).

In respect of risk, the test for BETA was not significant but companies with lower variability ($p = 0.012$) and specific risk ($p = 0.000$) were more likely to have commissioned surveys. There is thus some support for rejection of the null hypothesis H3.

Profitability measures provided mixed results although a lower trading profit and pre tax profit margin were associated with commissioning of surveys ($p = 0.005$). Tests on return on capital employed and shareholders' capital were not significant. The null hypothesis H4 cannot be rejected in respect of this variable.

In respect of hypothesis H5, both higher capital gearing and borrowing ratio were significantly associated with SURVEYS(Y/N) at the .046 and .008 level but income gearing was not significant.

The test on takeover activity was not significant and so null hypothesis H6 cannot be rejected.

The number of shares held by insiders was higher for companies that had no surveys ($p = 0.003$). The null hypothesis H7 can therefore be rejected. Similarly companies with more substantial shareholders were less likely ($p = 0.000$) to have had surveys and the null hypothesis H8 can be rejected.

The test on the line of business was not significant so the null hypothesis H9 could not be rejected.

In concluding this section it appears that companies that had commissioned surveys of City opinion were larger (H1) with more marketable shares (H2). They were less risky (H3) and more highly geared (H5). They had fewer shares held by insiders and substantial shareholders (H7 & 8). The null hypotheses H4 (profitability), H6 (takeover activity) and H9 (line of business) could not be rejected.

10.4.3 The number of surveys commissioned (SURVEYS(A), SURVEYS(B) AND SURVEYS)

The previous section dealt with a categorical variable, whether surveys had been commissioned or not. This section considers the actual number of surveys which provides at least an ordinal measure of effort devoted to investor relations. The correlations between these variables and the continuous independent variables are shown in tables C-11 and C-12. The association with the categorical independent variables is shown in tables C-13 to C-15.

Since SURVEYS is equal to the sum of SURVEYS(A) and SURVEYS(B) the three variables will be dealt with together in this discussion of hypothesis testing.

In respect of hypothesis H1 both SURVEYS(A) and SURVEYS were significantly positively correlated with company size at the .01 level for the Spearman correlation. SURVEYS(B) did not however provide a significant result. Overall there does appear to be an association between company size and surveys of City opinion. The null hypothesis H1 can therefore be rejected.

The marketability of shares overseas (LISTINGS) was significantly positively correlated with SURVEYS(A) at the .05 level and with SURVEYS at the .01 level. SURVEYS(B) however did not provide a significant result. Trading frequency (TRADFREQ) and its categorical versions (TFCAT and ALPHA) did not yield significant associations. The null hypothesis H2 can be rejected in respect of overseas marketability but not in the case of measures of marketability in the UK.

In testing hypothesis H3 it was found that the Spearman correlation for BETA was not significant but that variability and specific risk were significantly negatively correlated with SURVEYS(A) only (significant at the .01 level).

Profitability was significantly positively associated with SURVEYS(A) at the .01 level for trading profit margin and pre-tax profit margin and at the .05 level for return on shareholders' capital. However SURVEYS(B) was negatively associated with return on shareholders' capital (significant at the .05 level). There were no significant results for SURVEYS. Rejection of the null hypothesis H4 receives some support in respect of recent surveys (SURVEYS(A)) but overall the null hypothesis cannot be rejected.

It was found that SURVEYS(A) and SURVEYS were significantly negatively correlated with TOTSSH and NOOFSSH when using Spearman's rank correlation. This was not the case for SURVEYS(B). There is thus some support for rejection of null hypothesis H8 in that companies

with more substantial shareholdings seem less likely to have commissioned surveys.

The tests carried out indicate that null hypotheses H5 (gearing), H6 (takeover activity), H7 (insider shareholdings) and H9 (industrial classification) cannot be rejected.

In concluding this section it appears that recent surveys (SURVEYS(A)) yielded more in the way of significant results than SURVEYS(B) and total surveys (SURVEYS). This is rather difficult to explain. There is no reason to believe that the 12 months prior to this survey should be different from the four years prior to that in terms of commissioning surveys. It may be that the answers for SURVEYS(A) are more accurate due to the shorter time lapse. Bearing this in mind it appears that larger, less risky and more profitable companies with fewer substantial shareholders were more likely to have commissioned City opinion surveys in the 12 months prior to the survey.

10.4.4 The index of investor relations activity (ACTIVITY)

The index of investor relations activity (ACTIVITY) was obtained by summing the various activities weighted according to their importance to the company. This ordinal measure of investor relations effort was used to test the various hypotheses by calculating the correlations with the continuous independent variables (tables C-23 and C-24) and the Kruskal-Wallis test for the categorical independent variables (table C-25).

The index (ACTIVITY) was positively correlated with company size (H1) and this was significant at the .01 level, so larger companies tended to carry out more activities and view them as more important than smaller ones.

In respect of marketability (H2), both overseas listing (LISTINGS) and trading frequency (TRADFREQ) were significant at the .01 level for the Spearman correlation. The test on the categorical versions of the

variable OSEALIST and TFCAT gave significant results too. Thus companies with more marketable shares tended to have a higher value for ACTIVITY.

There was no apparent association between company risk (H3) or profitability (H4) and the activity index.

Although the Pearson correlation for ACTIVITY and income gearing was significant at the .05 level this was not the case for the Spearman correlation. There were no other significant associations between gearing measures and ACTIVITY so the null hypothesis H5 cannot be rejected.

Takeover activity (H6) and insider shareholdings (H7) were not significantly associated with the activity index. The evidence for H8, substantial shareholdings, was inconclusive since the Pearson correlation gave a significant result at the .05 level, whereas the Spearman did not. The Spearman is probably the safest result here as a non-parametric test is more appropriate due to the level of measurement of ACTIVITY. Finally, the industrial classification was not significant and the null hypothesis H9 cannot be rejected.

In concluding this section it appears that company size and marketability of shares were positively associated with the activity index.

10.4.5 Importance of the individual investor relations activities (GENERAL, SPECIAL, TELEPHONE, FEEDBACK and MAILING)

The answers to the individual questions which had been used to build up the activity index were then investigated. Kruskal-Wallis tests of association were then carried out to investigate association between the importance of the various IR activities and the continuous independent variables (tables C-31 to C-35). Chi-square tests were carried out to see if there were any significant differences at least

at the .05 level between the importance of the IR activities and the categorical independent variables (tables C-25 to C-29).

The first variable considered in this section is the importance of holding general meetings (GENERAL) which is rated from 2 (not done (1) combined with minor importance (2)) to 3 (moderate importance) to 4 (high importance).

Examining table C-31 it appears that companies with a higher trading profit margin (711TPM), and income gearing (732IGEAR) rated general meetings as being of minor importance. There were no other significant results. In the case of GENERAL and the categorical variables there was a significant result for industrial classification only. Financials were more likely to rate these as not done or of minor importance than the other groups (table C-26).

For the rating of meetings for individuals or small groups from the same organisation (SPECIAL), results of the testing are shown in tables C-32 and C-27.

Companies with high trading frequency (TRADFREQ and TFCAT) tend to rate special meetings as of high importance. Additionally, high income gearing (732IGEAR) was associated with a moderate or high importance for special meetings and high capital gearing (731CGEAR) and borrowing ratio (733BR) companies tended to rate special meetings as being of high importance. There were no other significant relationships at the .05 level.

The importance of answering telephone queries (TELEPHONE) from analysts was significantly higher for large companies (AV(MV)) with overseas listings (LISTINGS and OSEALIST) and higher trading frequency (TRADFREQ and TFCAT). Companies with both a larger total percentage (TOTSSH) and number of substantial shareholdings (N00FSSH) were more likely to view telephone queries as of minor importance (table C-33 and C-28). There were no other significant relationships for the variable (TELEPHONE).

Table 10-1 Summarised results of tests on importance of IR activities and the company specific independent continuous variables

	ACTIVITY	GENERAL	SPECIAL
SIZE AV(MV)	**		
MARKETABILITY LISTING TRADFREQ	** **		*
RISK BETA VARIABILITY SPECRISK			
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC		*	
GEARING 731CG 732IG 733BR		*	** * **
TAKEOVER ACTIVITY TAKEOVER			
SHAREHOLDER DETAILS BFA% TOTSSH NOSSH	*		
INDUSTRIAL CLASS 4WAYINDC		**	

KEY:

** = Kruskal-Wallis test or Spearman rank correlation significant at the .01 level

* = Kruskal-Wallis test or Spearman rank correlation significant at the .05 level

Providing feedback (FEEDBACK) on analysts' reports was significantly more important for smaller companies. Companies with high trading frequency tended to view this activity as of moderate importance whereas high variability and specific risk companies were more likely to rank it as highly important. Companies with a greater proportion of shares held by board family and associates (BFA%) ranked provision of feedback as highly important significantly more often (table C-34 and C-29). There were no significant associations between profitability, gearing, takeover activity, substantial shareholdings and the variable FEEDBACK.

There were three significant results for the tests of association between the importance of mailing information to analysts (MAILING) and the independent variables (table C-35 and C-30). Larger companies with more listings were more likely to rank this activity as moderately important. Companies with fewer substantial shareholders (NOOFSSH) were more likely to rank mailings as of moderate importance. There were no other significant associations using this variable.

In concluding this section it appears that the variables representing the importance of the five investor relations activities do not give consistent results. The rankings provided by the respondents are of course subjective and do not necessarily provide an objective measure of the importance to the company. Combining the results of this section with the results for the ACTIVITY index there appears to be support for rejection of null hypothesis H1 (size) for four out of six of the variables and for rejection of null hypothesis H2 (marketability) for five out of six of the variables. This summary is shown in table 10-1.

10.5 Multivariate analysis of data on assessment of the investor relation function

In addition to the univariate tests of association it was decided to carry out multivariate analysis of the dependent variables, SURVEYS(A), SURVEYS(B), SURVEYS and ACTIVITY. The Minitab stepwise

Table 10-1 (continued) Summarised results of tests on importance of IR activities and the company specific independent continuous variables

	TELEPHONE	FEEDBACK	MAILING
SIZE AV(MV)	*	*	**
MARKETABILITY LISTING TRADFREQ	* **	*	*
RISK BETA VARIABILITY SPECRISK		** **	
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC			
GEARING 731CG 732IG 733BR			
TAKEOVER ACTIVITY TAKEOVER			
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH*	*	** **	
INDUSTRIAL CLASS 4WAYINDC			

KEY:

** = Kruskal-Wallis or Spearman rank correlation significant at the .01 level

* = Kruskal-Wallis or Spearman rank correlation significant at the .05 level

regression routine was used with 17 predictor variables, LOGTAVMV, LOGLIST, LOGTRADFREQ, BETA, SQRTVAR, LOGTSRSK, 707ROCE, 711TPM, 716PTPM, 703ROSC, 731CGEAR, SQRTIG, SQRTBR, LOGTAKEO, NEGRBFA%, SQRTOTSH and NOOFSSH. The transformed version of the predictor variables was used where appropriate. The routines were also run using raw data but better results were obtained with the transformed independent variables. On comparing the results using the transformed dependent variables and the raw data for the dependent variables it was found that the transformed version gave better results and these are reported here. Variables were entered in the equation if the F-statistic was greater than 4, the default value set by Minitab which is approximately equivalent to a significance level of .05. Once useful variables had been identified using the stepwise routine, multiple regression was carried out to obtain more detail.

In respect of the number of surveys in the past twelve months (SURVEYS(A)) the variables entering the equation were LOGLIST, 716PTPM, 707ROCE and 731CGEAR (table C-36). It was decided to investigate which variables would enter the regression equations next if the required significance level was reduced in the Minitab stepwise regression routine. On reducing the F-statistic from the default value of four to two, variables can enter the equation if the t-statistic, which is the square root of the F-statistic, is 1.4 rather than 2. One further variable, LOGTRADF entered the equation (table C-40). Repeating the exercise for SURVEYS(B) it was found that no variables entered the equation. On reducing the F-value to 2, one variable LOGLIST entered the equation (table C-41). For the total SURVEYS only LOGLIST entered the equation even when the F-value was reduced to 2. For the activity index (ACTIVITY) only LOGTRADF and SQRTIG entered the equation for both F-values (table C-39).

On examining the R-square achieved from running the stepwise and the subsequent multiple regression routines it appears that SURVEYS(A) is the variable that can best be explained by the regression model. (The R-square is 16.4% and R-sq(adjusted for ties) = 13.7%.) It was decided, for this variable only, to carry out a multiple regression using all seventeen predictor variables plus the dummy variables for industrial classification. The results are shown in table C-42. The

Table 10-2 Significant results for tests of data on assessment and execution of investor relations with company specific independent variables.

	SURVEYS(A)	SURVEYS(B)	SURVEYS	ACTIVITY
SIZE AV(MV)	**		**	**
MARKETABILITY LISTINGS TRADFREQ	*A B	B	**A	** **A
RISK BETA VARIABILITY SPECRISK	** **		*	
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	A ** **A *	*		
GEARING 731CG 732IG 733BR	A			A
TAKEOVER ACTIVITY TAKEOVER				
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	 ** **		 ** **	 *

KEY:
** = Spearman rank correlation significant at at least the 0.01 level (two tail test)
* = Spearman rank correlation significant at the 0.05 level (two tail test)
A = enters into regression equation when critical F value is 4
B = enters into regression equation when critical F value is 2.

R-sq(adjusted for ties) was only 12.8%. A partial F-test showed that addition of the dummy variables was not significant at the .05 level.

The results of the stepwise regressions were compared with the results of the univariate analysis (table 10-2). The results of the two sets of tests were not totally consistent. In particular, company size (H1) did not enter in to the regression equations for the four variables. The link between marketability (H2) and the variables was fairly clear for both sets of tests. The univariate and multivariate analysis confirmed a positive association between profitability (H4) and SURVEYS(A). This could indicate that companies deliberately time surveys to be held when they are doing well. There was no clear support for rejection of the remaining null hypotheses H3 H5 H6 H7 and H8 in respect of the four variables considered in table 10-2.

The continuous dependent variables used in this chapter, SURVEYS(A), SURVEYS(B), SURVEYS and ACTIVITY have yielded rather different results to those used in chapter nine, INDEX, DIRDAY, BUDGET and COSTS. This is not unexpected because they are different variables achieving different levels of measurement.

10.6 Conclusions

This chapter has set out the results of parts two and three of the questionnaire providing an overview of how companies assess the contribution of the investor relations programme, what methods companies use to communicate with analysts and the relative perceived importance of those methods. Tests of association were performed in order to test the hypotheses set out in chapter seven. Questionnaire answers were compared with the explanatory or independent variables.

Overall, it was found that those companies which had commissioned surveys of City opinion were larger with more marketable shares than those who had not. They had lower specific risk and variability of equity and were more highly geared with fewer shares held by insiders and substantial shareholders. The number of surveys commissioned in

the past twelve months varied from a low of zero up to six. Companies that were more profitable with more marketable shares appeared to have commissioned more surveys.

The perceived importance of the five types of investor relations activities was investigated. Categorising respondents according to the perceived importance and testing for associations with the independent variables showed no clear pattern of support for the nine hypotheses. An activity index was then constructed and it was found that larger companies with more marketable shares had a higher activity index score.

The next chapter will consider the detailed results on company meetings with analysts and fund managers. A number of new variables derived from this data will be tested against the nine hypotheses.

Table 11-1 Attendance by company officials at meetings with analysts and fund managers

	YES	NO	N/A
Non-executive chairman	71	66	197
Chief executive	280	10	44
Managing director	120	9	205
Finance director	320	7	7
Marketing director	28	37	269
Company secretary	47	267	20
Chief Accountant	33	192	109
Investor relations officer	91	17	226
Head of public relations	71	61	202
External financial public relations consultant	104	161	69
N=334			

Note: Most respondents (245) had either a Chief Executive or a Managing Director. 88 respondents had both.

Chapter 11 Company meetings with Analysts and Fund Managers: Results and Analysis

11.1 Introduction

This chapter sets out the results of section four of the postal questionnaire survey (appendix A). This section relates to meetings for analysts and fund managers. Descriptive statistics are set out and the data obtained is then used to test the hypotheses proposed in chapter seven. The detailed tables of results are set out in appendix D. Conclusions are then drawn based on the results of the statistical analysis.

11.2 Results of questionnaire survey section 4 : Company meetings with analysts and fund managers.

11.2.1 Organisation of meetings for analysts and fund managers

Out of 337 respondents 334 stated that they held meetings for analysts and fund managers. Companies were then asked which company officials attended some or all or these meetings. Ten officials were specified and respondents were able to add up to three other names. The Finance Director was the company official mentioned most frequently by companies as attending meetings. The high level of attendance of Chief Executives and Managing Directors indicates the importance that companies attach to communications with analysts (table 11-1 and tables D-1 to D-10).

Respondents were asked whether they kept a record of the proceedings of meetings with analysts and fund managers. In the case of general meetings (for groups of delegates from a number of different employing organisations) the majority of companies kept records, but for special meetings (with individuals or small groups from one organisation) barely half kept records (tables D-11 and D-12).

11.2.2 Number of meetings held by companies in the past twelve months and size of analyst following

Respondents were then asked for details of how many meetings they had held in the past 12 months. Answers here showed a wide variation from 0 to 50 (median 4) for general meetings and from 0 to 125 (median 20) for special meetings (tables D-13 and D-14).

Companies were then asked how many analysts and fund managers were on the circulation list for invitation to meetings. There was a wide variation again here. From 0 to 120 (median 20) for sell-side analysts and from 0 to 700 (median 30) for buy-side analysts and fund managers (tables D-15 and D-16).

Since analysts do not attend all the meetings to which they are invited it was also considered relevant to ask how many analysts had actually attended meetings in the past twelve months. The median number of sell-side analysts attending meetings was 20 and for buy-side analysts and fund managers it was 25. The results were quite similar to the number on the invitation list, indicating that companies were achieving a good attendance at their meetings (tables D-17 and D-18).

An additional measure of the interest shown by the City in a company is the number of stockbroking firms and institutional investor organisations that have sent representatives to the company meetings. It was found that the number varied from zero to 88 for stockbrokers (median 15) and from zero to 250 for institutions (median 20) (tables D-19 and D-20).

11.2.3 Provision of information on past performance and future prospects

It was considered important to attempt to discover what type of information is passed to analysts and fund managers at meetings. A list of possible items was constructed on the basis of a review of the literature and discussion with practitioners at the pilot stage.

Table 11-2 Importance of disclosure of information on past performance at meetings with analysts and fund managers.

	MEAN	STDEV	RANK
Explanation of recent results in the context of the general economic environment	3.7	0.7	1
Explanation of structure of balance sheet and gearing	3.3	0.9	2
Explanation of accounting policies	2.7	0.9	3
Additional breakdown of published figures by line of business	2.6	1.3	4
Performance of recent acquisitions	2.6	1.4	5
Additional breakdown of published figures by geographical area	2.0	1.3	6
Outcome of completed research and development projects	1.3	1.3	7

Note:

Ranking scale 4 = High importance, 3 = Moderate importance, 2 = Minor importance, 1 = Not at all, 0 = not applicable

Summary tables 11-2 and 11-3 and detailed tables D-21 to D-47 relate to the question which asked respondents what type of information the company provides to delegates at meetings. The first seven items listed were concerned with past performance. Twenty items relating to future prospects were then listed. Due to the sensitive nature of this type of announcement the questionnaire added the rider 'subject if necessary to prior announcement to the London Stock Exchange'. Respondents were requested to indicate the relative importance of the disclosures. The scale ranged from 0 for not applicable, 1 for not at all, 2 for minor importance, 3 for moderate importance to 4 for high importance.

Out of the seven items on past performance an explanation of recent results in the context of the general economic environment was ranked overall as most important. This was followed by an explanation of the structure of the balance sheet and gearing. Of least importance was the outcome of completed research and development projects which was stated to be not applicable by 133 of respondents.

There were twenty items relating to future prospects listed on the questionnaire. Respondents rated disclosure of information on company strategy in the long term and the short term as being most important. Least important was the first announcement of new research and development projects, mainly because this was deemed to be not applicable by 149 respondents.

11.3 Results of hypothesis testing

11.3.1 Introduction

Eight continuous measures of effort devoted to investor relations were obtained from the data and used for hypothesis testing. (Anonymous responses were deleted leaving 325 respondents.) These were the number of general meetings in the past twelve months (GENERALS) and the number of special meetings (SPECIALS). The number of sell-side analysts on the company's circulation list (LIST(A)) and the number of buy-side analysts and fund managers (LIST(B)). The number of sell-

Table 11-3 Importance of disclosure of information on future prospects at meetings with analysts and fund managers.

	MEAN	STDEV	RANK
Company strategy in the long term	3.7	0.7	1
Company strategy in the short term	3.5	0.7	2
Company strategy for particular segments of the business	3.4	1.0	3
Cash flow situation	3.3	0.9	4
Dividend policy	3.3	0.9	5
Company strategy on future acquisitions	3.1	1.1	6
Further explanation of major new projects and developments that have already been announced	3.0	2.0	7
Long term investment plans	2.9	1.2	8
First announcement of major new projects and developments	2.8	1.3	9
Company strategy on future disposals of segments of the business	2.5	1.4	10
Further explanation of profits forecast that has already been made	2.1	1.6	11
First announcement of profits forecast	2.0	1.6	12
First announcement of new contracts	1.6	1.3	13

side analysts attending meetings in the past twelve months (ANALYST(A)) and the number of buy-side analysts and fund managers (ANALYST(B)). The number of stockbroking firms represented at meetings in the past twelve months (FIRMS) and the number of institutional investor organisations (INVESTOR). These measures can be considered to give some idea of effort devoted to investor relations but also to the success of the company in attracting a following of analysts and fund managers. Descriptive statistics are set out in table D-48.

The distribution of the variables was investigated for normality and they were then transformed by taking the log to the base ten, the square root and the negative reciprocal. The correlation test for normality provided by Minitab was used to compare the various transformations with the raw data and the best transformation was selected for subsequent analysis where appropriate (table D-48).

The correlation between the eight variables was calculated and is displayed in table D-49. In respect of the Spearman rank correlation the value of the coefficient ranged from a low of 0.194 to a high of 0.821. All the eight measures relate to company meetings but each one covers a different aspect of the meetings programme and the variation in the correlation is only to be expected.

The null hypotheses set out in chapter 7 were tested using univariate analysis. Tests used included the Pearson and Spearman correlation and the Kruskal-Wallis test. Subsequently multivariate analysis was performed and is discussed in the next section 11.4.

11.3.2 Data on meetings and analyst following

The eight variables extracted from the questionnaire responses were used to test the nine hypotheses. The correlation between the dependent and continuous independent variables was calculated and the results are shown in table D-50 for the Pearson and D-51 for the Spearman rank correlation. The Kruskal-Wallis test was used to test

Table 11-3 (continued) Importance of disclosure of information on future prospects at meetings with analysts and fund managers.

	MEAN	STDEV	RANK
Further explanation of new contracts that have already been announced	1.6	1.3	14
Current state of order book	1.5	1.5	15
Further explanation of new products that have already been announced	1.5	1.3	16
First announcement of new products	1.4	1.4	17
Prospects of current research and development projects	1.1	1.2	18
Further explanation of new research and development projects that have already been announced	1.1	1.2	19
First announcement of new research and development projects	0.9	1.1	20

for association between the dependent variables and the categorical independent variables. The results are shown in tables D-51 to D-57.

Hypothesis H1 is that there is no association between company size and the meetings variables. For both the Pearson and Spearman correlations the coefficient was positive and significant at at least the .01 level for all eight measures of investor relations meetings. The null hypothesis can therefore be rejected and it appears that larger companies hold more meetings and have a larger following of analysts and fund managers.

Hypothesis H2 is that there is no association between the marketability of a company's shares and the meetings variables. World-wide marketability is represented by the number of listings outside the UK (LISTINGS). The eight variables were positively correlated with LISTINGS and this was significant at the .01 level for both Pearson and Spearman rank correlations. Additionally the categorical version of the variable, whether or not a company had an overseas listing (OSEALIST), yielded a result significant at the 0.000 level in the Kruskal-Wallis tests against the eight variables. The null hypothesis can therefore be rejected and it appears that overseas listings by UK companies are associated with more meetings and a greater analyst following.

In respect of marketability on the UK stock market the variable trading frequency (TRADFREQ) gave significant (at the .01 level) Spearman rank correlation coefficients for all eight variables. (The Pearson correlations were significant at the .01 level for seven out of eight of the variables, for the variable GENERALS it was not significant.) The companies with more frequently traded shares tended to have more meetings and a greater analyst following. The categorical version of the variable (TFCAT) and whether or not the share was an alpha stock (ALPHA) also yielded significant results in the Kruskal-Wallis tests against the eight variables. These were significant at the 0.000 level for seven of the variables and at the 0.005 and 0.035 for the variable GENERALS. Thus the null hypothesis can be rejected. The companies with more marketable shares within the UK appeared to hold more meetings and have a larger analyst following.

Hypothesis H3 is that there is no association between stock market risk measures and the meetings variables. The variables used were the beta or market risk (BETA), the variability (VARIAB) and the specific risk (SPECRISK). In respect of the BETA the Spearman rank correlation was positive and significant at the .01 level for LIST(A) and ANALYST(A) and at the .05 level for LIST(B). The correlation was not significant for the remaining five variables related to meetings and analyst following. The variability (VARIAB) was negatively correlated with the eight dependent variables. This was significant at the .01 level for ANALYST(A), ANALYST(B), FIRMS and INVESTORS and at the .05 level for LIST(A) and LIST(B). Thus firms with lower share price variability have a higher analyst following. In terms of specific risk (SPECRISK) the Spearman rank correlation was negative and significant at the .01 level for seven of the variables and at the .05 level for GENERALS. Firms with lower specific risk tend to have more meetings and a higher analyst following. The null hypothesis can be rejected since there is a significant association between the risk measures and the dependent variables.

Hypothesis H4 is that there is no association between company profitability and the meetings variables. Four measures of profitability were used and the Spearman correlation between them and the eight dependent variables was found to be significant at the .05 level in only seven out of 32 cases. The correlation was positive in 9 cases and negative in 23 cases. Overall there does not appear to be a significant association between profitability and number of meetings and analyst following and the null hypothesis cannot be rejected.

Hypothesis H5 is that there is no association between gearing and the meetings variables. Three measures of gearing were used and correlated with the eight measures of meetings and analyst following. In respect of the Spearman rank correlation the correlation coefficient was positive in 23 cases and significant at at least the .05 level in 16 out of 24 cases. There does appear to be some association between number of meetings and analyst following and increasing gearing.

Hypothesis H6 is that there is no association between recent takeover activity and the meetings variable. The correlations yielded no support for rejection of the null hypothesis.

Hypothesis H7 is that there is no association between the level of insider shareholdings and the meetings variables. There was a negative Spearman rank correlation significant at the .01 level for 7 out of 8 of the dependent variables and the percentage of shares held by insiders (BFA%). This lends support to rejection of the null hypothesis H7.

Hypothesis H8 is that there is no association between the level of substantial shareholdings and the meetings variables. In testing this hypothesis the total percentage of substantial shareholdings was used (TOTSSH) and the number of substantial shareholdings (NOOFSSH). The eight variables were negatively correlated with TOTSSH and NOOFSSH. The Spearman rank coefficient was significant at the .01 level for 13 out of 16 of the tests and at the .05 level for one test. The remaining two tests for the variable GENERALS did not give a significant result. The categorical version of the variable, whether or not there were any substantial shareholdings (SSH(Y/N)), yielded mixed results in the Kruskal-Wallis test with 4 out of 8 tests being significant at at least the .05 level. Overall it appears that there is some support for rejection of null hypothesis H8 in respect of investor relations meetings and substantial shareholdings.

Hypothesis H9 is that there is no association between company line of business and the meetings variables. The Kruskal-Wallis test of 4WAYINDC against the eight dependent variables showed that in seven cases there was no significance at the required level of .05 percent. In respect of the variable GENERALS the result was significant at the .01 level and 'other groups' held more general meetings than companies in the other three categories. In view of the overall result the null hypothesis cannot be rejected.

Table 11-4 Significant results for data on meetings and analyst following with company specific variables.

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SIZE AV(MV)	**	**B	**A	**A
MARKETABILITY LISTINGS TRADFREQ	**A **	**A **A	**A **	**A **
RISK BETA VARIAB SPECRISK	*	B **	**A * **	*A * **
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC		*	*B *	
GEARING 731CGEAR 732IGEAR 733BR		** * **	* * **B	A *
TAKEOVER ACTIVITY TAKEOVER				
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH		** **B *B	**A **A **A	** ** **

KEY:

** = Spearman rank correlation significant at the .01 level (two tail test)

* = Spearman rank correlation significant at the .05 level (two tail test)

A = Enters into regression equation when critical F-value is 4

B = Enters into regression equation when critical F-value is 2

GENERALS = Number of general meetings in past 12m

SPECIALS = Number of special meetings in past 12m

LIST(A) = Number of sell-side analysts on circulation list

LIST(B) = Number of buy-side analysts on circulation list

11.4 Multivariate analysis of data on meetings and analyst following.

In addition to the univariate tests of association multivariate analysis was carried out for the eight dependent variables describing the number of meetings and the analyst following. The Minitab stepwise regression command was used with 17 predictor variables, LOGTAVMV, LOGLIST, LOGTRADFREQ, BETA, SQRTVAR, LOGTSRSK, 707ROCE, 711TPM, 716PTPM, 703ROSC, 731CGEAR, SQRTIG, SQRTBR, LOGTAKEO, NEGRBFA%, SQRTOTSH and NOOFSSH. The routine was also run using the raw version of the predictor variables but better results, in terms of achieved R-square, were obtained using the transformations. Variables were entered into the equation if the F-statistic was greater than 4, this is the default value set by Minitab. When a variable is entered into the regression equation the F test is carried out for the hypothesis that the coefficient of the entered variable is 0. The probability associated with an F statistic of 3.84 is approximately equivalent to 0.05 for large samples. Once useful variables had been identified using the stepwise routine, multiple regression was carried out to obtain more detail (tables D-60 to D-75). The R-square (adjusted) achieved was 16.3% for GENERALS, 20.2% for SPECIALS, 44.4% for LIST(A), 19.8% for LIST(B), 44.5% for ANALYST(A), 31.5% for ANALYST(B), 35.3% for FIRMS and 29.5% for INVESTORS. The regression model appears to be better at predicting sell-side analyst following as compared to buy-side analyst and fund manager following.

The stepwise regression was repeated with the critical F value reduced from 4 to 2 in order to see which variables would be entered in to the equation next and a multiple regression was performed using the new set of variables where this differed from the variables identified in the first stepwise routine (tables D-67 to D-81).

The results of the multiple regressions were compared with the significance of the Spearman rank correlations between the eight dependent variables and the seventeen independent variables (table 11-4). Each hypothesis will now be considered in turn to identify similarities between the univariate and the multivariate analysis.

Table 11-4 (continued) Significant results for data on meetings and analyst following with company specific variables.

	ANALYST(A)	ANALYST(B)	FIRMS	INVESTORS
SIZE AV(MV)	**A	**A	**A	**A
MARKETABILITY LISTINGS TRADFREQ	**A **	**A **	** **A	**A **
RISK BETA VARIAB SPECRISK	**A ** **	A ** **	** **B	** **
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	* *		* B *	
GEARING 731CGEAR 732IGEAR 733BR	* * **	* B **	** ** **	B **
TAKEOVER ACTIVITY TAKEOVER				
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	**B **B **B	** ** **B	** **B **	** ** **

NOTE
** = Spearman rank correlation significant at the .01 level (two tail test)
* = Spearman rank correlation significant at the .05 level (two tail test)
A = Enters into regression equation when critical F-value is 4
B = Enters into regression equation when critical F-value is 2

GENERALS = Number of general meetings in past 12m
SPECIALS = Number of special meetings in past 12m
LIST(A) = Number of sell-side analysts on circulation list
LIST(B) = Number of buy-side analysts on circulation list

For hypothesis H1 (company size) the correlation was significant at the .01 level for all eight variables and the company size variable entered into the regression equation for six variables with F set at 4 and additionally for SPECIALS with F set to 2. In only one case (GENERALS) did size not enter into the regression equation. Rejection of null hypothesis H1 is further supported by the multivariate analysis.

In the case of marketability (H2) the number of overseas listings was significant in univariate analysis for all eight of the variables and entered into the regression equation for seven out of eight. The trading frequency was significant for all eight variables but entered into the regression equation for only two of the variables. Thus for world wide marketability the multivariate analysis supports rejection of null hypothesis H2 but the conclusion is less clear for marketability within the UK.

Hypothesis H3 yielded somewhat differing results in the univariate and multivariate analysis. In respect of BETA the agreement was quite good, as for the three significant correlations the variables also entered into the regression equation. For variability (VARIAB) there were six significant correlations but VARIAB did not enter into the regression equation for any of the six variables. For specific risk (SPECRISK) there were eight significant correlations but for only one variable (FIRMS) did SPECRISK enter into the regression equation and only when the F value was reduced to 2 from the default of 4.

The univariate analysis had provided little support for rejection of null hypothesis H4 (profitability) and the multivariate analysis was similar leading to the conclusion that the null hypothesis cannot be rejected.

In respect of gearing (H5) the univariate analysis had yielded some support for rejection of the null hypothesis, with three gearing measures and eight dependent variables there were 16 out of a possible 24 significant correlations. The multiple regression did not provide further confirmation. One gearing variable entered the regression equation for four of the dependent variables but in only one case did

this correspond with a significant correlation for that gearing variable. The link between gearing and investor relations activity is not clearly supported by the results of the multivariate analysis.

Rejection of null hypothesis H6 (takeover activity) received no support from either the univariate or the multivariate analysis.

Univariate analysis for hypothesis H7 (shares held by insiders) gave significant test results for six out of eight correlations but the variable (BFA%) only entered into the regression equation for LIST(A) and ANALYST(B). It would appear that once the effect of size has been accounted for the level of insider shareholdings becomes less important in predicting investor relations activity.

Rejection of null hypothesis H8 (substantial shareholdings) had been quite strongly supported by the univariate analysis. For both TOTSSH and NOOFSSH there were seven out of eight significant correlations. The variable TOTSSH entered into the regression equation for four of the variables, SPECIALS, LIST(A), ANALYST(A) and FIRMS. The variable NOOFSSH entered into the regression equation for SPECIALS, LIST(A), ANALYST(A) and ANALYST(B). On reviewing table 11-4 it can be seen that the multivariate analysis supports the univariate analysis for hypothesis H8. There is one problem in that the correlations for both TOTSSH and NOOFSSH are negative but in the regression equations the coefficients for TOTSSH are negative and for NOOFSSH are positive.

The main conclusion arising from a comparison of the multivariate analysis and the univariate analysis is that company size seems to be the most important variable in determining the number of meetings and the analyst following. The number of overseas listings is also important.

The variables used for analysis in this chapter were the number of meetings held (GENERALS and SPECIALS) and three measures of the size of the sell-side analyst following (LIST(A), ANALYST(A), FIRMS) and buy-side analyst and fund manager following (LIST(B), ANALYST(B), INVESTORS) of the company. Chapter 9 looked at variables associated with the organisation of the investor relations function and chapter

10 analysed the number of surveys of City opinion. All the variables considered relate in some way to investor relations activity. The achieved R-square (adjusted) using the regression model was just over 40% for two out of eight of the dependent variables. This can be compared with the best R-square (adjusted) achieved previously of just under 40% for the multiple regression of the investor relations budget (BUDGET) in chapter nine.

11.5 Conclusions.

This chapter has set out the results of part four of the questionnaire which dealt with the general organisation of meetings and obtained details of what information is disclosed to analysts at meetings. It was notable that company finance directors, chief executives and managing directors were greatly involved in the meetings. This indicates the high level of importance that companies attach to meetings with analysts and fund managers and the predominance of financial information in the investor relations process. Company strategy in the long term and the short term were the two items of information that were ranked as the most important for discussion in meetings with analysts and fund managers.

Data was collected to measure investor relations activity in the context of meetings. Hypotheses set out in chapter seven were tested by comparing data from the questionnaire with the explanatory or independent variables. Overall it was found that larger companies with more marketable shares had held more meetings and had a larger analyst following.

The next chapter will consider further aspects of the investor relations programme, telephone conversations with analysts and fund managers, company feedback on analysts' reports and mailing information.

Table 12-1 Company officials answering telephone calls from analysts and fund managers

	Yes	No	N/A
Non-executive chairman	24	111	197
Chief executive	206	83	43
Managing director	79	48	205
Finance director	302	24	6
Marketing director	12	53	267
Company Secretary	48	265	19
Chief Accountant	26	200	106
Investor relations officer	91	17	224
Head of public relations	65	66	201
External financial public relations consultant	80	183	69
N = 332			

NOTE: Most respondents (245) had either a chief executive or a managing director. 88 respondents had both.

Chapter 12 Telephone Conversations, Company Feedback on Analysts' Reports and Mailing Information: Results and Analysis

12.1 Introduction

This chapter sets out the results of sections five, six and seven of the questionnaire (see appendix A). Section five asked about company telephone conversations with analysts and fund managers. Section six of the questionnaire dealt with the extent to which companies are willing to help analysts and give them guidance on their research output. Section seven of the questionnaire sought to discover whether companies mail information to analysts and what type of information is sent out. Descriptive statistics are set out and the data obtained is then used to test the hypotheses proposed in chapter seven. The detailed tables of results are set out in appendix E. Conclusions are then drawn based on the results of the statistical analysis.

12.2 Results of questionnaire survey section five: Telephone conversations with analysts and fund managers.

It was established that 98.5% of respondents engaged in telephone conversations with sell-side analysts whilst 94.31% did so with buy-side analysts and fund managers (table E-1 & E-2).

The next question sought to establish which company officials answer telephone enquiries. The Finance Director was mentioned most often here (302 times) although the Chief Executive (206 times) or Managing Director (79 times) was also frequently involved. Once again this result indicates the importance that companies attach to communication with analysts and fund managers (tables E-3 to E-12). Where the respondent had a non-executive chairman it was found that in only 24 cases out of 126 was the chairman involved in telephone conversations. Out of 65 companies with a marketing director, in only 28 cases did the this director speak to analysts on the telephone. Where there was an investor relations officer and this post was held by a separate individual, telephone calls with analysts were made in 91 out of 108

cases. For the 131 companies with a head of public relations, this official was involved in telephone conversations in 50% of cases. For 80 respondents out of 263, the external financial public relations consultant answered telephone queries.

Telephone conversations are relatively private compared to meetings and there may be a greater risk of the company officials passing on price sensitive inside information. Respondents were asked whether a record was kept of telephone conversations. None of the respondents made tape recordings of telephone conversations. A significant minority (45.05%) did, however, keep a written record (tables E-12 & E-13). Sixteen companies stated that no record was made in some cases but that in others it was. This indicates that only some, but not all, telephone conversations were deemed important enough for a written record to be made of them.

Analysts and fund managers who attend a company investor relations meeting may be invited to telephone the company later if they have any subsequent queries. Some analysts may decline to ask certain questions at general meetings to prevent other competing analysts hearing the answer. These results show that telephone conversations are widespread and an important part of the investor relations programme.

12.3 Results of questionnaire survey section six: Company feedback on sell-side analysts' reports.

This section of the questionnaire dealt with the extent to which companies are willing to help analysts and give them guidance on their research output.

Some companies are the subject of greater attention from analysts than others. Table E-15 shows that the number of analysts' reports produced varied widely from 0 to 350 in a 12 month period. The mean value was 22.3 and the median was 12. Some, but not all, analysts' reports were passed to the company for comment as is shown in table E-

16. The number varied from 0 to 50 with a mean of 9.3 and median of 6. The reason why some reports are not passed to the company could be because of restraint on the part of the analysts. Also certain companies may favour some analysts and be less helpful to others.

The next question asked what action does the company take when it receives a draft analyst's report for comment or when an analyst telephones to discuss a draft report. Four options were presented with space for companies to describe additional procedures. Respondents were able to tick as many actions as were applicable. Only 3 respondents out of 336 stated that analysts' reports were never received. Only 1 respondent stated that feedback is never provided. The vast majority of companies (94%) did correct factual errors in analysts' reports. Just under half (49%) offered comments on the accuracy of analysts' predictions (tables E-17 to E-20).

Respondents were then asked to specify company policy when asked to comment on analysts' profit forecasts (table E-21). The majority (77%) stated that comments are made, 21% that comments are never made and 2% that the company is never asked for comments. The term profit forecast in this question was more specific than the term 'analysts' predictions' used in the previous question which was intended to encompass general business prospects, future strategy, share price movements and future accounting numbers. On examining the results it is apparent that companies are more willing to comment on profit forecasts than analysts' predictions.

Respondents then indicated company procedures in making comments on analysts' profit forecasts. The results are shown in tables E-22 TO E-26. Only 66 out of 335 respondents ticked the box indicating that comments were not made. The other respondents were presented with 5 procedures plus space for describing their own policy if different. If a forecast is reasonable 71% stated they would make no comment whereas 24% would confirm this with the analyst. If a forecast is not reasonable only 4 out of 335 would make no comment. 44% stated that they would inform the analyst if a forecast is not reasonable and it is particularly worth noting that 53% of companies provide analysts with guidance on the amount of error in their profit forecasts.

Table 12-2 Types of information sent to analysts and/or fund managers

	Yes	No
Annual report	287	1
Interim report	284	4
Company news service announcements	206	82
Information brochures	131	155
General press releases	161	127
Takeover documents	130	158
Documents designed for analysts	68	220
Quarterly reports	14	274
N = 288		

Although companies were invited to tick as many options as were applicable there is some inconsistency in the answers and it appears that some companies have ticked only the most important option to them rather than all applicable options.

These results are important since they show the level of assistance offered to analysts with their forecasts and the different procedures adopted by companies. This arises from the unclear regulatory regime at the time of the survey. Mounting pressure for stricter regulation and increased quality of corporate governance may lead to a different set of practices in the near future.

12.4 Results of questionnaire survey: Mailing information to analysts and fund managers.

Section seven of the survey instrument asked companies about the mailing of information to analysts and fund managers. There were 49 respondents who did not do so and they omitted this part of the questionnaire.

The number of organisations on the companies' mailing lists is shown in tables E-29 to E-31. There was a wide variation from 1 to 200 for firms of stockbrokers with a mean of 27.3 and median of 20 and from 0 to 4500 (mean 93.4 median 30) for institutional investor organisations. Companies, therefore, seem to have more institutional investors on their mailing lists than stockbrokers. This is probably because of the high importance of institutions in the UK stock market and the decline of individual shareholders. Some respondents also sent information to other organisations employing analysts but 168 out of 212 respondents who answered this question did not.

The next question asked what information is sent to analysts and/or fund managers. Not surprisingly the annual report and the interim report were mentioned by most respondents (99%) (table 12-2 and tables E-32 to E-39). Most respondents (72%) sent out copies of stock exchange company news service announcements. Some companies also sent

out general press releases (56%), information brochures (46%) and takeover documents (45%). Only 68 companies (23%) designed documents specially for analysts. Quarterly reports were only sent out by 5% of companies, this is because very few UK listed companies produce these reports.

These results indicate that analysts and fund managers receive preferential treatment compared to individual shareholders who normally only receive the documents to which they are entitled by statute or regulation. There is a trend to offer abridged accounts to shareholders in order to save money. An individual shareholder who is interested in following a company does not have free or easy access to stock exchange company news service announcements.

Mailing information to analysts and fund managers is possibly the least costly activity in terms of staff time and expense. Additionally, companies can use mail shots to keep in touch with analysts from overseas who can only rarely attend meetings. Referring back to chapter 10 section 4.5 and table C-21 it can be seen that this activity is viewed as being less important than meetings, telephone calls and feedback provision.

12.5. Results of hypothesis testing

12.5.1 Introduction

Five continuous measures of effort devoted to investor relations were obtained from the data and used for hypothesis testing. The section on company feedback on analysts' reports produced the number of sell-side analysts reports produced in the past twelve months as estimated by the respondent (REPORTS) and the number of analysts' reports passed to the company for comment in the past twelve months (COMMENT). The section on mailing information gave data on the number of stockbrokers on the company mailing list (BROKERS), the number of institutional investors (INSTINV) and other organisations employing analysts (OTHER). (The section on telephone conversations was used for

descriptive statistics only and not for hypothesis testing as the questions were not so designed.) The distribution of each variable was investigated using the correlation test for normality provided by Minitab. A transformation was carried out for use in subsequent testing where appropriate (tables E-40 & E-57).

In addition to the continuous measures noted above there were two simple yes/no measures of effort devoted to investor relations. These were whether or not the company mailed information to sell-side analysts (MAILING(A)) and buy-side analysts and fund managers (MAILING(B)). Companies which mail information to analysts and fund managers are using resources so these variables provide an ordinal measure of investor relations activity.

In order to test the hypotheses, univariate analysis was first carried out between the collected data and the independent variables. The 325 respondents who had identified themselves were used and the twelve anonymous responses were omitted. The Pearson and Spearman correlations were used when both the variables were continuous and the Kruskal-Wallis test was used when one variable was continuous and the other categorical. The chi-square test was used when both variables were categorical or ordinal.

Multivariate analysis was carried out subsequently and will be dealt with in the next section (12.6).

12.5.2 The number of sell-side analysts' reports produced (REPORTS) and passed to the company for comment (COMMENT)

The number of reports (REPORTS) was provided by 265 respondents and the number received for comment (COMMENT) by 276 respondents. These variables are indirect measures of investor relations effort, if a company is successful in interesting analysts it is likely that more reports will be prepared. Tables E-41 and E-42 show the Pearson and Spearman correlations between REPORTS and COMMENT and the continuous independent variables. The Kruskal-Wallis tests of association

between REPORTS and COMMENT and the categorical independent variables are shown in tables E-43 and E-44.

Company size (H1) was positively correlated with REPORTS and COMMENT and this was significant at the .01 level for the Pearson and the Spearman rank correlations. The null hypothesis H1 can therefore be rejected.

The marketability of shares (H2) was positively correlated with REPORTS and COMMENT for the number of overseas listings (LISTINGS) and this was significant at the .01 level for the Spearman and Pearson correlations. The Kruskal-Wallis test was significant at the 0.000 level using the categorical version of the variable (OSEALIST). In respect of marketability within the UK the variable TRADFREQ was negatively correlated with REPORT and COMMENTS and this was significant at the .01 level. (A frequently traded share has a trading frequency of 0 signifying that on average there is no period of time between trades.) The categorical version of the variable (TFCAT) gave a test result that was significant at the 0.000 level for both REPORT and COMMENT. The null hypothesis H2 can therefore be rejected and it seems that companies with more marketable shares have more analysts' reports produced on them and receive more of these for comment.

Hypothesis H3 is that there is no association between stock market risk measures and the variables REPORT and COMMENT. On testing there was no significant association of REPORT with BETA but a negative correlation, significant at the .01 level, with variability (VARIAB) and specific risk (SPECRISK). For COMMENT there was no association with BETA and the Spearman rank correlation with variability was not significant although the Pearson correlation was significant at the .05 level. COMMENT was negatively correlated with specific risk and this was significant at the .01 level. There is some support for rejection of null hypothesis H3 since companies with lower variability and specific risk appear to attract more analyst comment.

There was no association between profitability (H4) and REPORT and COMMENT. Hypothesis H5 is that there is no association between

gearing and the variables REPORT and COMMENT. REPORTS was positively correlated with the borrowing ratio (733BR) and the Spearman rank correlation was significant at the .01 level but the other correlations using two other measures of gearing and COMMENT were not significant. There was no significant association between takeover activity (H6) and REPORT and COMMENT. The null hypotheses cannot be rejected for H4, H5 and H6.

There was strong support for rejection of null hypotheses H7 and H8. The correlations between insider shareholdings (BFA%), substantial shareholdings (TOTSSH), number of substantial shareholdings (NOOFSSH) and the variables REPORT and COMMENT were negative and significant at the .01 level. Companies with a greater percentage of shares held by insiders and substantial shareholders attract less interest from analysts in the form of written reports.

Finally, the association between industrial classification (4WAYINDC) (H9) and REPORT and COMMENT was tested. The Kruskal-Wallis tests were not significant and so the null hypothesis cannot be rejected.

In concluding this section it appears that the number of analysts' reports both produced and passed to the company for comment is not significantly associated with the independent variables for three of the hypotheses but that there are significant relationships in respect of hypotheses H1, H2, H3, H7 and H8. The larger, more marketable, less risky companies with fewer shares held by insiders and substantial shareholders are analysed more and receive more requests for help with analysts' reports.

12.5.3 The mailing of information to sell-side analysts (MAILING(A)) and buy-side analysts and fund managers (MAILING(B)).

A minority of companies stated that they did not mail information to sell-side analysts or buy-side analysts and fund managers. Whether or not a company did mail information was used as an ordinal measure of effort devoted to investor relations. To test the various hypotheses,

the Kruskal-Wallis test was used with the independent continuous variables (tables E-53 & E-54) and the chi-square test with the categorical independent variables (tables E-55 & E-56).

It was noted that larger companies were more likely to mail information. This was significant at the 0.000 level for MAILING(A) and the 0.001 level for MAILING(B). Rejection of null hypothesis H1 receives support from these results.

In respect of overseas listings (LISTING) the Kruskal-Wallis test was significant at the 0.022 level for MAILING(A) and at the 0.010 level for MAILING(B). Companies with overseas listing were more likely to mail information. The chi-square test using the categorical version of the variable (OSEALIST) was significant at the .05 level for MAILING(A) and the .02 level for MAILING(B). For trading frequency (TRADFREQ) in the UK it was noted that companies with more frequently traded shares were more likely to mail information ($p = 0.000$ for MAILING(A) and MAILING(B)). The chi-square tests were significant at the 0.001 level for the categorical version of the variable TFCAT. Rejection of null hypothesis H2 is supported and it appears that companies with more marketable shares are more likely to mail information to analysts and fund managers.

The value of beta, variability and specific risk were not significantly associated with either MAILING(A) or MAILING(B) at the required level of .05. The null hypothesis H3 cannot be rejected.

There was no support for rejection of null hypothesis H4 (profitability) or H5 (gearing). The number of takeovers (H6), insider shareholdings (H7) and substantial shareholdings (H8) were not significantly associated with MAILING(A) or MAILING(B). Rejection of the line of business hypothesis (H9) was not supported by the chi-square tests of MAILING(A), MAILING(B) and 4WAYINDC.

The hypothesis tests on categorical variables MAILING(A) and MAILING(B) have only yielded positive results for H1 and H2. Larger companies with more marketable shares are more likely to mail information to analysts and fund managers.

12.5.4 The size of the company's mailing list

The size of the company's mailing list was considered to be a possible useful variable for hypothesis testing. The number of stockbrokers (BROKERS), institutional investors (INSTINV) and other organisations employing analysts (OTHER) were used. These figures were provided by approximately 200 of the respondents for the three variables (table E-57).

The Pearson and Spearman rank correlations between the variables and the independent continuous variables were calculated (tables E-58 & E-59). Kruskal-Wallis tests of association between the variables and the independent categorical variables were carried out (tables E-60 to E-62).

On reviewing the overall results it was apparent that the variable OTHER had very few significant results. Most respondents had answered this question with a zero and only 44 with a number. For this reason the subsequent analysis will concentrate on the variables BROKERS and INSTINV.

Rejection of null hypothesis H1 receives support at the .01 level for both variables for the Pearson and Spearman rank correlations. Larger companies tend to have larger mailing lists and the null hypothesis can be rejected.

Hypothesis H2 (marketability) was examined and companies with more overseas listings (LISTINGS) had significantly larger mailing lists ($p = .01$). Companies with more frequently traded shares (TRADFREQ) also had significantly larger mailing lists. The tests on the categorical variables OSEALIST and TFCAT were also significant at the 0.000 level. The null hypothesis can therefore be rejected.

The Spearman rank correlation between BETA and BROKERS was positive and significant at the .05 level. For INSTINV it was significant at the .01 level. There was no association between variability and the

size of the mailing list. The specific risk was negatively correlated with BROKERS and INSTINV (significant at the .01 level). So firms with a higher beta and lower specific risk tended to have larger mailing lists and rejection of null hypothesis H3 is supported by the results.

There was no clear support for rejection of null hypothesis H4 (profitability). Although the Spearman rank correlation between BROKERS and pre-tax profit margin was negative and significant at the .05 level other results were not significant. The null hypothesis cannot be rejected.

In respect of hypothesis H5 (gearing) the Spearman rank correlations between BROKERS and capital gearing (731CGEAR) and borrowing ratio (733BR) were positive and significant at the .01 level. There were no significant results for INSTINV or income gearing (732IGEAR). It appears that companies with larger numbers of stockbrokers on their mailing list appear to be more highly geared and rejection of the null hypothesis H5 is thus supported to a certain extent.

Recent takeover activity (H6) did not appear to be associated with size of mailing lists for the Spearman rank correlations although the Pearson correlation between TAKEOVER and INSTINV was significant at the .01 level. The null hypothesis should not be rejected as the nonparametric test is more appropriate with the data used.

The percentage of insider shareholdings (BFA%) was negatively correlated with BROKERS and INSTINV and significant at the .01 and the .05 level respectively for the Spearman rank correlation. Rejection of null hypothesis H7 is supported and companies with a higher proportion of shares held by insiders appear to have smaller mailing lists.

There was support for rejection of null hypothesis H8 as the Spearman rank correlations between BROKERS, INSTINV, the percentage held by substantial shareholders (TOTSSH) and the number of substantial shareholdings (NOOFSSH) were negative and significant at the .01 level.

Table 12-3 Significant results for data on analysts' reports and continuous independent variables

	REPORTS	COMMENT
SIZE AV(MV)	A**	A**
MARKETABILITY LISTINGS TRADFREQ	A** **	** **
RISK BETA VARIAB SPECRISK	** **	**
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC		
GEARING 731CG 732IG 733BR	**	B
TAKEOVER ACTIVITY TAKEOVER	A	
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	B** B** **	** B** **

KEY:
** = Spearman rank correlation significant at at least the 0.01 level (two tail test)
* = Spearman rank correlation significant at the 0.05 level (two tail test)
A = enters into regression equation when critical F value is 4
B = enters into regression equation when critical F value is 2

Rejection of null hypothesis H9 was not supported since the chi-square tests between BROKERS, INSTINV and industrial classification (4WAYINDV) were not significant at the required level of .05.

Overall there is strong support for rejection of null hypotheses H1, H2, H7 and H8. Larger companies with more marketable shares and fewer shares held by insiders and substantial shareholders have larger mailing lists indicating a higher effort devoted to investor relations.

12.6 Multivariate analysis of data on analysts' reports and mailing lists

In addition to the univariate tests of association it was decided to carry out multivariate analysis of the dependent variables REPORTS, COMMENT, BROKERS AND INSTINV. The Minitab stepwise regression routine was run with the 17 predictor variables used in the previous chapters. The programme was run using both transformed versions of the variables and the raw data. The results of using the transformed version of the predictor variables are reported here. Variables were entered into the regression equation if the F-statistic was greater than 4, the default value set by Minitab which is approximately equivalent to a p value of .05. Once useful variables had been identified using the stepwise routine the multiple regression was carried out. The procedure was repeated reducing the F-statistic to 2 and redoing the multiple regression if more variables entered into the equation.

For the number of analysts' reports produced in the past twelve months (REPORTS) the variables for size (LOGTAVMV), number of listings (LOGLIST) and takeovers (LOGTAKEO) entered into the regression equation (tables E-46 & E-47). Reducing the F-statistic to 2 caused the variables for substantial shareholdings (SQRTOTSH) and insider shareholdings (NEGRBFA%) to enter the equation (table E-50). The R square achieved, adjusted for degrees of freedom, was 25.5% and 25.7%. The results of the multiple regression were compared with the univariate analysis Spearman rank correlation results (table 12-3).

Table 12-4 Significant results for data on size of mailing lists and continuous independent variables

	BROKERS	INSTINV
SIZE AV(MV)	A**	**
MARKETABILITY LISTING TRADFREQ	A** **	A** **
RISK BETA VARIAB SPECRISK	* **	** **
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	 A*	
GEARING 731CG 732IG 733BR	 ** B **	
TAKEOVER ACTIVITY TAKEOVER		A
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	 ** A** **	 * ** **

KEY:
** = Spearman rank correlation significant at at least the .01 level (two tail test)
* = Spearman rank correlation significant at the .05 level (two tail test)
A = enters into regression equation when critical F value is 4
B = enters into regression equation when critical F value is 2

Whilst there were nine significant correlations only four of the variables entered the regression. Takeover activity entered the regression but was not significant in the univariate analysis. The multivariate analysis strengthens the case for rejection of the null hypotheses H1 (size), H2 (overseas marketability), H7 (insider shareholdings) and H8 (substantial shareholdings).

In respect of the number of analysts' reports passed to the company for comment (COMMENT) in the past twelve months only size (LOGTAVMV) entered the first regression equation and the R square (adjusted) was 22.4% (table E-48 & E-49). Reducing the F-statistic enabled two further variables to enter the equation, capital gearing (731CGEAR) and substantial shareholding (SQRTOTSH) and R square (adjusted) was 23.9% (table E-51). This result can be compared with the univariate analysis where for seven significant correlations only two of the variables entered the regression. Capital gearing entered the regression but was not significant in the univariate analysis. The multivariate analysis supports rejection of the null hypotheses H1 (size) and H8 (substantial shareholdings).

The stepwise regression of the number of stockbrokers on the mailing list (BROKERS) identified four variables, listings (LOGLIST), size (LOGTAVMV), substantial shareholdings (SQRTOTSH) and profitability (716PTPM). The R square (adjusted) was 40.0% (tables E-63 & E-64). Reducing the F-statistic to 2 led to income gearing entering the equation (SQRTIG) and the R square (adjusted) was 41.4% (table E-69). Comparing this with the univariate analysis (table 12-4) showed that for eleven significant correlations four of the variables entered the regression. Income gearing entered the regression but was not significant in the univariate analysis. The multivariate analysis adds support to rejection of null hypotheses H1 (size), H2 (overseas marketability) and H8 (substantial shareholdings).

For the number of institutional investors on the mailing list (INSTINV) only number of listings and takeovers entered the regression (tables E-65 & E-66). The R-square adjusted was 24.3%. The multiple regression supports the univariate results in only one case, the number of listings (table 12-4).

Multiple regression using all independent variables was carried out for REPORTS and BROKERS, the two variables with the better results in the stepwise regressions. The four way industrial classification was included by means of three dummy variables but partial F-tests showed that the addition was not significant. The results are shown in tables E-52 and E-71.

The multiple regression for REPORTS was carried out for 227 cases since 98 cases had missing values. The R square (adjusted) achieved was 39.0% and the variables with significant p values agreed with those identified in the stepwise routines (LOGTAVMV, LOGLIST, LOGTAKEO, NEGRBFA% and SQRTOTSH). No warnings of ill-conditioned data were issued by Minitab. There were twelve cases where the observation had a large standardised residual and ten cases where the X value gave the observation a large influence. The residuals were plotted against the fitted values and the actual values of REPORTS. There was a tendency for residuals to increase as REPORTS increased and vice versa indicating a need to introduce further variables to improve the model or respecify the existing model. The correlation test for normality of residuals gave a value of 0.925.

The multiple regression for BROKERS used 187 cases, 138 cases contained missing values. The R square (adjusted) achieved was 40.2% and the variables with significant p values at the .05 level were LOGTAVMV, LOGLIST and SQRTOTSH and, at the 0.1 level, SQRTIG. This was not in complete accordance with the variables identified by the stepwise routine which also included LOGTAKEO and NEGRBFA%. No warnings of ill-conditioned data were issued by Minitab. There were nine cases of observations with large standardized residuals and six observations where the X value gave it a large influence. The residuals were plotted against the fitted values and the actual values of BROKERS. There was a tendency for residuals to increase as BROKERS increased and vice versa indicating a need to introduce further variables to improve the model or respecify the existing model. The correlation test for normality of residuals gave a value of 0.914.

12.7 Conclusions

This chapter has set out the results of sections five, six and seven of the questionnaire survey. It provides a description of company procedures for telephone conversations with analysts and fund managers, company feedback on sell-side analysts reports and the mailing of information. Tests of association were carried out using data obtained from the questionnaire and the independent variables in order to investigate the hypotheses set out in chapter seven. Multivariate analysis was carried out to complement the univariate testing.

The vast majority of companies engaged in telephone conversations with analysts and fund managers and this activity frequently included the chief executive and finance director.

Most companies offered analysts some form of assistance with their research reports and around half commented on the accuracy of analysts' predictions and offered guidance on their errors in profit forecasts.

Mailing of information to analysts and fund managers was carried out by most companies. Generally more information is sent out than would go to an individual shareholder. A minority of companies send out documents specially designed for analysts.

Four continuous variables extracted from the questionnaire data were used for hypothesis testing, these were the number of research reports produced in the past twelve months, the number passed to the company for comment and the size of the mailing list of stockbrokers and institutional investors.

It was found that larger companies were the subject of more analyst research and received more reports for comment. They also had larger mailing lists of brokers and institutional investors. This support for rejection of null hypothesis H1 is in accordance with the findings in earlier chapters nine, ten and eleven which looked at different variables related to the investor relations effort.

The marketability of the company's shares, in particular the overseas listings, was an important explanatory variable with the tests supporting rejection of null hypothesis H2. Companies with larger mailing lists that were more heavily researched had more marketable shares. This overall conclusion is similar to the findings in chapters nine, ten and eleven.

The support for rejection of null hypotheses H3 (risk), H4 (profitability), H5 (gearing), H6 (takeover activity) and H9 (industrial classification) was less conclusive or non-existent for some of the four continuous variables considered in this chapter.

Rejection of null hypotheses H7 and H8 received quite strong support. The variables were significantly negatively correlated with the percentage of shares held by insiders and the shares held by substantial shareholders. This is in broad agreement with the findings of chapters nine, ten and eleven.

Chapter 13 Company Close Seasons and Opinions on Relationships with Analysts and Fund Managers

13.1 Introduction

This chapter sets out the results of sections eight and nine of the questionnaire (see appendix A). Section eight asked about the company policy on close seasons, whether it prohibits or restricts communications with analysts and fund managers at certain times of the year or in certain circumstances. Section nine asked for the opinions of respondents on their company's relationship with analysts and fund managers.

The results obtained contribute to answering the overall research question regarding the nature of company communications with analysts and the general research question on the opinions of companies. An attempt is made to explain the different company responses on close seasons and opinions by making use of the explanatory variables that were used previously in testing the specific hypotheses. The detailed tables of results are set out in appendix F. This is the final chapter of results. The overall conclusions arising from the results set out in chapters nine to thirteen will be discussed in the final chapter fourteen.

13.2 Company close seasons

Companies were asked whether they prohibited or restricted communication with sell-side analysts, buy-side analysts, and/or fund managers at certain times of the year. 151 (45%) respondents operated a prohibition, 177 a restriction (53%) and 31 (9%) had no close season. They were able to select more than one option and thus 22 companies indicated that a prohibition existed at some times and a restriction at others (table F-1).

The next question asked when the prohibition or restriction occurred (tables F-2 to F-4). There were 337 respondents and, after deducting

the 31 with no close season, all 306 operated a close season before the annual and interim and results announcement. Only 17 had a close season prior to the quarterly results but this was not applicable for 94% of the respondents since few UK companies produce quarterly reports. 27 respondents mentioned other times when restrictions were imposed, usually during takeovers.

Further questions asked about the number of days of prohibition or restriction imposed on communications with analysts. The median response was sixty days prior to both final and interim results for the 275 companies which answered this question (tables F-5 to F-7).

Respondents were then asked to describe the nature of their policy of restriction of communication. 148 respondents did this, usually stating that general matters would be discussed but not the upcoming results. Many mentioned here that price sensitive information would not be disclosed. A selection of comments is given below:

Only broad economic issues or wholly factual (non-financial and non price sensitive) issues may be discussed

Comments would not include details re company's achievement of profit forecast etc

Calls would be taken and information given if its omission would lead to a serious misdirection of the market

Communication restricted to dates of meetings and comments on nature of business and products - not on performance

Comment on current trading is prohibited. Issues of strategy for example, may be discussed but contact is not encouraged

Questions taken by chief executive only during this period and analyst informed we are in our "purdah" period

The issue of company close seasons is an important one. Some companies operate a complete prohibition of communication at sensitive

Table 13-1 Opinions on sell-side analysts

	MEAN	MEDIAN	STDEV
Company meetings with sell-side analysts are a valuable means of communication	1.7207	2.000	0.6234
Company telephone conversations with sell-side analysts are a valuable means of communication	1.8825	2.0000	0.6830
My company would prefer not to hold sell-side analysts' meetings	4.2326	4.000	0.6676
My company would prefer not to talk to sell-side analysts on the telephone	4.1459	4.000	0.7551
My company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts	3.3446	4.000	1.1323
Sell-side analysts pressurise my company for information	3.1437	3.000	1.0395
Sell-side analysts are too concerned with short term profit opportunities	2.5471	2.000	0.9901
Sell-side analysts are not sufficiently interested in the long term prospects of my company	2.9970	3.000	1.0536

NOTE:

N = 337 (maximum number of missing values for eight questions is 12)

Ranking scale

1 = Strongly agree, 2 = Agree, 3 = Uncertain, 4 = Disagree, 5 = Strongly disagree

times of the year while others still release information selectively. It is simpler for companies to maintain a complete prohibition rather than having to exercise skill and judgement regarding what can and cannot be discussed in the close season. On the other hand, being unable to keep the markets informed for, on average, four months of the year could be viewed as a severe handicap to market efficiency.

13.3 Opinions on relationships with analysts and fund managers

The first question related to the perceived quality of research work carried out by analysts (table F-8). Six respondents said they had no opinion on the matter leaving 331 answering the question. There was a five point scale and respondents could rate the quality of analysis as very poor, poor, acceptable, good or very good. 52% considered the general quality to be acceptable and 42% considered it to be good. Only 4% rated analysis as poor in general with 2% rating it as very good.

Respondents were then asked to compare the quality of work produced by the two types of analyst, sell-side and buy-side (tables F-9 and F-10). 240 respondents rated sell-side analysts but only 199 rated buy-side analysts. Many respondents noted that they did not see the analysis produced by buy-side analysts and as a result they stated that they had no opinion or that the question was not applicable. The median rating of three for sell-side and buy-side analysts was the same (acceptable) but the mean rating was slightly higher for sell-side (3.40) than for buy-side (3.39) analysts. It would seem that, in general, companies perceive little difference between the analysis carried out by the two types of analyst.

Since there seems to be a growing tendency for companies to favour direct communication with institutional investors at the expense of brokers' analysts the next questions were split into two sections (see chapter 4.4).

Table 13-2 Opinions on buy-side analysts and fund managers

	MEAN	MEDIAN	STDEV
Company meetings with buy-side analysts and fund managers are a valuable means of communication	1.5061	1.000	0.5909
Company telephone conversations with buy-side analysts and fund managers are a valuable means of communication	1.9417	2.000	0.7603
My company would prefer not to hold meetings with buy-side analysts & fund managers	4.4233	4.000	0.6411
My company would prefer not to talk to buy-side analysts and fund managers on the telephone	4.1455	4.000	0.8708
My company should not provide buy-side analysts and fund managers with guidance as to future profits	3.1433	4.000	1.1956
Buy-side analysts and fund managers pressurise my company for information	3.6852	4.000	0.8654
Buy-side analysts and fund managers are too concerned with short term profit opportunities	3.3406	4.000	0.9335
Buy-side analysts & fund managers are not sufficiently interested in the long term prospects of my company	3.5920	4.000	0.8784

NOTE:

N = 337 (maximum number of missing values for eight questions is 16)

Ranking scale

1 = Strongly agree, 2 = Agree, 3 = Uncertain, 4 = Disagree, 5 = Strongly disagree

The first set of questions asked for respondents' opinions on the value of investor relations activities conducted for the benefit of sell-side analysts. (tables F-11 to F-16). Respondents were asked whether they strongly agreed, agreed, were uncertain, disagreed or strongly disagreed with a selection of statements.

The vast majority (93%) either agreed or strongly agreed that company meetings with sell-side analysts are a valuable means of communication. In the case of telephone calls 89% agreed or strongly agreed that they are valuable. Companies were keen to hold meetings for sell-side analysts since only 10 (3%) respondents agreed that they would prefer not to hold them and 93% disagreed or strongly disagreed. Only 19 respondents (6%) stated they would prefer not to talk to sell-side analysts on the telephone. Whilst 26% agreed or strongly agreed that their company should not provide analysts with guidance as to the accuracy of their profits forecasts, a majority of 59% disagreed or strongly disagreed. It was agreed that sell-side analysts pressurised companies for information by 37% of respondents but 49% disagreed. On reviewing tables F-11 to F-16 it seems that companies agree that communications with sell-side analysts are valuable and that they wish to continue talking to analysts and providing guidance on their forecasts.

The next two questions (tables F-17 and F-18) related to the topical debate on short-termism. The majority of respondents (59%) agreed or strongly agreed that sell-side analysts are too concerned with short term profit opportunities. Opinions were split down the middle regarding whether analysts were sufficiently interested in companies' long term prospects . While 40% either agreed or strongly agreed that sell-side analysts are not sufficiently interested in the long term prospects of their company, 20% were uncertain and 41% disagreed or strongly disagreed.

The next questions dealt with respondents' opinions on their company's relationship with buy-side analysts and fund managers (tables F-19 to F-26). Most respondents (97%) agreed or strongly agreed that company meetings with buy-side analysts and fund managers are a valuable means of communication. In the case of telephone calls 83% agreed or

strongly agreed that they are valuable. Companies were happy to hold meetings for buy-side analysts since only 6 (2%) respondents agreed that they would prefer not to hold them and 96% disagreed or strongly disagreed. Only 24 respondents (7%) stated they would prefer not to talk to buy-side analysts and fund managers on the telephone. Whilst 35% agreed or strongly agreed that their company should not provide analysts with guidance as to the accuracy of their profits forecasts, a majority of 51% disagreed or strongly disagreed. It was agreed that buy-side analysts pressurised companies for information by 14% of respondents but 73% disagreed. On reviewing table F-19 to F-23 it appears that companies are generally in favour of maintaining communications with buy-side analysts and fund managers.

The next two questions dealt with respondents' perceptions of short-termism among fund managers and buy-side analysts (tables F-25 and F-26). While 21% agreed or strongly agreed that buy-side analysts and fund managers are too concerned with short term profit opportunities 25% were uncertain and 54% disagreed or strongly disagreed. Only 14% agreed or strongly agreed that buy-side analysts and fund managers are not sufficiently interested in the long term prospects of their company, 20% were uncertain and 66% disagreed or strongly disagreed. These results can be compared with the equivalent questions for sell-side analysts. It appears that buy-side analysts and fund managers are viewed as being less short-termist, on average, than sell-side analysts.

It should be noted that despite frequent criticism of City short-termism the respondents were not unanimous in their perceptions of short-termism among analysts and fund managers. The majority of respondents did not agree that buy-side analysts and fund managers are short termist. For sell-side analysts a majority agreed they are too concerned with short term profit opportunities. On the other hand, there was no majority agreement that sell-side analysts are not sufficiently interested in the long term prospects of my company.

The final question asked for respondents' opinions and ideas as to how company communications with brokers' analysts, buy-side analysts and fund managers should be conducted in the future. A number of themes

emerged here. Firstly, it was clear that many respondents viewed one-to-one meetings and site visits with fund managers as being increasingly important. Another concern expressed by respondents was the legal and regulatory environment governing investor relations. Some respondents wanted more regulation or guidance, others wanted less. The following is an illustration of two differing points of view:

We exercise prudence and caution in all our communications with the city and feel that any attempt to legislate to restrict this would be impractical and difficult to enforce.

Clearer guide-lines are required/needed from Stock Exchange or other regulatory authorities. Too much reliance is currently placed on market practice and ad hoc decisions by the individuals concerned in the process.

Another theme was the favoured treatment for top analysts. Some companies place analysts in different divisions and allow different levels of contact according to these rankings.

The overall impression gained from the answers received is that most companies are reasonably happy with the existing relationship between themselves and analysts and fund managers.

13.4 Analysis of results

13.4.1 Introduction

The measures obtained in sections one to seven of the questionnaire, as reported in chapters nine to twelve, were different aspects of effort or resources devoted to investor relations. The data obtained from section eight and nine is somewhat different. The data on close seasons can be considered as a measure of organisational or internal control over the investor relations process. Company policy can vary from lengthy periods of complete prohibition to no close seasons at

all. It was therefore considered desirable to attempt to explain the different responses in the data on close seasons. It was decided to use the explanatory variables that were used previously, in attempting to explain the costs of company communications with analysts, to see if they were of use in explaining different company behaviour.

There were three categorical variables relating to the existence of close seasons. These were whether or not the company operated a prohibition (PROHIB), whether or not it had a period of restriction (RESTRICT) and whether it had no close season at all (SEASON). There were two continuous variables, the number of days close season prior to the annual results announcement (ANNUAL) and the interim results (INTERIM).

The data on opinions on company relationships with analysts can be viewed as a measure of satisfaction with the investor relations process and its outcome. If companies are satisfied, then they are likely to feel that the benefits of the investor relations programme outweigh the costs. The data included three opinions on the quality of research and ten opinions on the value of the investor relations activity. There were two data sets of opinions on whether companies are pressurised to reveal information and four sets of opinions on short-termism.

It was considered desirable to test the differing opinions of companies against the independent variables used previously in the hypothesis testing. This was to see if these variables were associated with the different opinions. For example, it might be expected that profitable companies will be praised by analysts and hence be more likely to be satisfied with their relationship with analysts.

13.4.2 The existence of close seasons

The Kruskal-Wallis test of association was run to compare the dependent variables PROHIB, INTERIM and SEASON with the independent

continuous variables representing company size, marketability, risk, profitability, gearing, takeover activity, insider shareholdings and substantial shareholdings. The chi-square test was also carried out using the independent categorical variables representing marketability, industrial classification and the existence of substantial shareholdings (tables F-27 to F-32). The tests were carried out via the null hypothesis of no association between the dependent and independent variables.

In respect of whether or not companies operated a prohibition (PROHIB) there were no significant results apart from those related to gearing and industrial classification. Companies that were more highly geared were more likely to operate a prohibition, this was significant at the 0.013 level for capital gearing and at the 0.033 level for borrowing ratio (table F-27). For industrial classification the chi-square test was significant at the .02 level. On examining the standardised residuals it appears that companies in the capital goods sector were more likely to operate a prohibition.

There were no significant results for the tests of association between the existence of a restriction of communication (RESTRICT) and the independent variables apart from marketability and industrial classification. Companies with a higher trading frequency (TRADFREQ) were more likely to have a restriction ($p = 0.029$) and this was also true for the categorical version of the variable TFCAT where the chi-square was significant at the .02 level. Also companies with an overseas listing (OSEALIST) were more likely to have a restriction (chi-square significant at the .05 level). Perhaps companies with more marketable shares do not favour periods of complete prohibition of communication as they need to keep the markets informed. The chi-square test of RESTRICT and industrial classification was significant at the .05 level. On examining the standardised residuals it appeared that capital goods companies were less likely to operate restriction and 'other groups' were more likely to.

When evaluating the test results for the 146 companies having a prohibition (PROHIB) and the 174 with a restriction (RESTRICT) it should be borne in mind that a small group of 22 respondents operated

both types of close season. The final smaller group of 27 companies claiming to operate no close season (SEASON) yielded a greater number of significant results in the hypothesis testing.

On reviewing the results of the Kruskal-Wallis tests of association (table F-29) and the chi-square tests (table F-32) there are a number of significant results. The companies with no close season were smaller ($p = 0.001$) and had fewer overseas listings ($p = 0.011$) and lower trading frequency ($p = 0.002$). The results for the categorical versions of the variables OSEALIST and TFCAT were also significant at the .01 level.

With respect to risk measures these companies had higher variability ($p = 0.019$) and specific risk ($p = 0.013$). The profitability measures yielded mixed results. Companies with no close season had higher trading profit margins ($p = 0.005$) and pre-tax profit margins ($p = 0.002$) but their returns on capital employed and shareholders' capital were not significantly different.

These companies were also less highly geared but the test was only significant at the required level for the borrowing ratio ($p = 0.044$).

There was no support at the required level of significance of .05 when testing the null hypothesis of no association for takeover activity, insider shareholdings, substantial shareholdings and line of business.

13.4.3 The length of the close seasons

The length of the close seasons prior to the annual (ANNUAL) and interim results announcement (INTERIM) were tested against the independent variables. Descriptive statistics are shown in table F-33 and it should be noted that the median value of 60 days was given by 186 out of 269 companies for ANNUAL and by 179 out of 266 for INTERIM. The Pearson and Spearman rank correlations between ANNUAL and INTERIM and the independent continuous variables were calculated (tables F-36 and F-37) and Kruskal-Wallis tests of association between ANNUAL and

INTERIM and the independent categorical variables were carried out (tables F-34 and F-35). Tests were carried out via the null hypothesis of no association between the close season variables and the independent variables.

For the length of the close season prior to the annual results announcement (ANNUAL) there were only two significant results on testing the nine sets of independent variables. The Spearman rank correlation was negative and significant at the .05 level for the number of overseas listings (LISTINGS) and the total percentage of shares held by substantial shareholders (TOTSSH). The Kruskal-Wallis test was significant at the 0.029 level for the categorical variable OSEALIST. To summarise, companies with overseas listings and fewer substantial shareholdings seem to have shorter close seasons prior to their annual results announcement.

For the length of the close season prior to the interim results announcement the Spearman rank correlation was negative and significant at the .01 level for company size and number of overseas listings. The Kruskal-Wallis test was significant at the 0.000 level for OSEALIST. The correlation was negative and significant at the .05 level for income gearing and the .01 level for borrowing ratio. The Kruskal-Wallis test was significant at the 0.023 level for industrial classification. The results indicate that companies in the financial sector had shorter close seasons than those in capital goods followed by consumer groups and 'others'. To summarise, the length of the close season prior to interim results does seem to be shorter for large companies with overseas listings. Less highly geared companies have a shorter close season and industrial classification also appears to be significant.

13.4.4 Opinions

The first variable used was the respondent's opinion (OPINION) on the general quality of analysts' reports, from all sources, that are made on the company. This is a categorical variable measuring indirectly

the company's satisfaction with its investor relations effort. The Kruskal-Wallis (table F-38) and the chi-square tests (table F-40) were run using the independent variables to test for associations. This was done via the null hypothesis of no association between OPINION and the independent variables. The next variable was the opinion on the quality of analysis carried out by sell-side analysts (SELLSIDE) (tables F-39 and F-41). The Kruskal-Wallis and chi-square tests were also run for the opinion on the quality of analysis carried out by buy-side analysts but there were no significant results at the required level of 0.05.

It was found that smaller companies were more likely to have extreme views, ranking analysis as very good or poor whereas the larger companies were more likely to rank analysis as acceptable or good. This was significant at the 0.02 level for OPINION and at the 0.017 level for SELLSIDE. This can possibly be explained by the fact that smaller companies are followed by fewer analysts and the general quality of the analysis for these companies can thus be affected more easily by one or two poor or very good analysts.

The companies with less frequently traded shares were more likely to rate analysis as very good. The Kruskal-Wallis test was significant at the 0.032 level for OPINION and the 0.004 level for SELLSIDE. The categorical versions of the marketability variables used in the chi-square test did not yield significant results for OSEALIST or ALPHA but for TFCAT chi-square was significant at the 0.01 level for both OPINION and SELLSIDE. On examining the standardised residuals it was noted that companies with low trading frequency were more likely to rate analysis as very good.

Companies with a greater number of substantial shareholdings (NOOFSSH) were more likely to rate analysis in general as very good. This was significant at the 0.019 level for OPINION but there were no significant results for TOTSSH or SSH(Y/N).

There were no significant results for risk, insider shareholdings and line of business so the null hypothesis, of no association, cannot be rejected.

The responses included data on sixteen further opinions. These were, eight opinions on the value of the investor relations activities for sell-side analysts and eight opinions on the value of investor relations activities for buy-side analysts and fund managers. The Kruskal-Wallis test was run to identify any significant association between the 17 continuous independent variables and the opinion data (tables F-42 and F-43). The chi-square test was carried out to test for associations between the opinion data and the industrial classification (4WAYINDC) (table F-43). Overall, there were few significant results and it is only these that are shown in the results tables. In some cases it was necessary to combine values because of the small number of companies holding extreme opinions (strongly agree or strongly disagree).

The eight opinions on sell-side analysts will be considered first. There were no significant results for opinion one: company meetings with sell-side analysts are a valuable means of communication. For opinion two, company telephone conversations with sell-side analysts are a valuable means of communication, there were three significant results. Larger companies with more frequently traded shares were more likely to strongly agree and smaller companies to strongly disagree or disagree ($p = 0.001$ for size and $p = 0.027$ for trading frequency). Additionally, companies with low income gearing were more likely to strongly disagree or disagree ($p = 0.024$).

There were no significant results for opinion three: my company would prefer not to hold sell-side analysts' meetings. For opinion four, my company would prefer not to talk to sell-side analysts on the telephone, there were two significant results. Smaller companies tended to answer strongly agree and agree while larger ones answered strongly disagree ($p = 0.031$). Companies with more shares held by insiders (BFA%) were more likely to answer strongly agree or agree ($p = 0.037$).

For opinion five, my company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts, there was one significant result. Firms with low beta were more likely to answer strongly agree and those with a high beta to answer strongly

disagree ($p = 0.025$). There were three significant results for opinion six: sell-side analysts pressurise my company for information. Smaller companies tended to answer uncertain or disagree while larger companies answered agree, strongly disagree or strongly agree ($p = 0.002$). Companies with more frequently traded shares tended to agree whereas those with less frequently traded shares tended to strongly agree ($p = 0.001$). Companies with fewer shares held by insiders were likely to strongly agree and those with more shares held by insiders were likely to answer uncertain ($p = 0.046$).

There were two significant results for opinion seven: sell-side analysts are too concerned with short term profit opportunities. As both capital gearing ($p = 0.040$) and borrowing ratio ($p = 0.047$) increased, companies were likely to move from strongly disagree and disagree to agree and strongly agree. More highly geared companies were thus more likely to perceive sell-side analysts to be short termist. There were no significant results for opinion eight: sell-side analysts are not sufficiently interested in the long term prospects of my company.

The eight opinions on buy-side analysts and fund managers will now be considered (table F-43). For opinion one, company meetings with buy-side analysts and fund managers are a valuable means of communication, there were six significant results. Large companies tended to strongly agree or agree ($p = 0.016$). Those with more listings tended to strongly agree ($p = 0.033$) as did those with a higher trading frequency ($p = 0.006$). Companies with a higher pre-tax profit margin were more likely to answer uncertain or strongly disagree ($p = 0.021$). Companies with a lower capital gearing ($p = 0.026$) and borrowing ratio ($p = 0.046$) were more likely to answer uncertain or strongly disagree.

There were no significant results for opinion two: company telephone conversations with buy-side analysts and fund managers are a valuable means of communication. For opinion three, my company would prefer not to hold meetings with buy-side analysts and fund managers, there were three significant results. The very large companies tended to be uncertain and the smallest companies seemed to strongly agree or agree. Fairly large companies tended to strongly disagree ($p =$

0.001). A similar pattern was shown for the number of listings ($p = 0.012$). For trading frequency, companies with more frequently traded shares tended to answer strongly disagree and those with less frequently traded shares to answer strongly agree or agree ($p = 0.007$).

For opinion four, my company would prefer not to talk to buy-side analysts and fund managers on the telephone, there was one significant result. Larger companies strongly disagreed and smaller companies agreed or strongly agreed ($p = 0.000$). For opinion five, my company should not provide buy-side analysts and fund managers with guidance as to future profits, there was one significant result. Companies with a lower trading profit margin answered strongly agree whereas those with the highest margin tended to answer uncertain ($p = 0.006$).

For opinion six, buy-side analysts and fund managers pressurise my company for information, there was one significant result. Companies with a higher return on capital employed were more likely to strongly agree or agree and those with a lower return to be uncertain ($p = 0.036$). There were no significant results for opinion seven: buy-side analysts and fund managers are too concerned with short term profit opportunities.

Opinion eight, buy-side analysts and fund managers are not sufficiently interested in the long term prospects of my company, gave three significant results. Larger companies were more likely to disagree or strongly disagree ($p = 0.008$). Companies with more listings were more likely to strongly disagree ($p = 0.007$) as were companies with more frequently traded shares ($p = 0.012$).

Considering the results overall there is not a strong pattern or consistent support for the idea that the explanatory variables might be associated with company opinions. At the most, it appears that company size and to a lesser extent marketability of shares do seem to be associated with opinions on some topics.

A chi-square test was performed using the opinion data and the four way industrial classification to see if there was any association

between line of business and the various opinions. There was only one significant result (table F-44) for opinion four: my company would prefer not to talk to sell-side analysts on the telephone. It can be concluded that there is no overall association between opinions on the investor relations process and company line of business.

13.5 Conclusions

One main conclusion arising from this chapter is that companies operate a wide variety of policies with respect to close seasons when they restrict or prohibit communications with analysts and fund managers. This can vary from, for example, sixty to ninety days of complete prohibition prior to both the interim and final results to no close seasons at all for a minority of the respondents. Many companies, however, choose to restrict rather than absolutely prohibit communication.

The testing attempted to explain the observed differences in policy on close seasons. Companies with no close seasons were more likely to be small with no overseas listings. Companies with overseas listings and higher trading frequency were more likely to have a restriction rather than a prohibition. These results could indicate that the policy depends on the demand for information experienced by the companies. This was borne out by the fact that companies with overseas listings were more likely to have shorter close seasons prior to results announcements.

Company opinions about the investor relations activity and the quality of analysts' reports show a wide variation. Most respondents were satisfied with the work of analysts, finding their reports either acceptable or good. The majority agreed that meetings and telephone conversations were a valuable means of communication and wished to continue with them. Opinions were equally divided on whether sell-side analysts pressurise companies for information but it was generally agreed that buy-side analysts and fund managers did not do this. It was not felt by the majority that buy-side analysts and fund

managers are short-termist. On the other hand, there were more companies that perceived sell-side analysts to be short-termist.

The testing attempted to explain the different opinions expressed by respondents. No consistent pattern emerged here indicating that opinions were not readily explained by the selected independent variables.

Chapter 14 Conclusions

14.1 Introduction

The achievements of this project can be classified into two main areas. The first is the collection and presentation of a detailed set of results that describe the investor relations processes of large UK quoted companies. The second is the development and investigation of a model seeking to explain the observed differences between companies in terms of the costs and effort devoted to investor relations. This chapter will consider the achievements of the study, discuss any limitations and suggest further possible lines of research.

a x

14.2 Descriptive statistics on company communications with analysts and fund managers

The data obtained from respondent companies and presented in the results chapters provides, for the first time in the UK, a comprehensive picture of the way in which large quoted companies carry out their investor relations programmes with particular emphasis on their dealings with analysts and fund managers. These results are particularly interesting in that they confirm the privileged position of analysts and fund managers as recipients of company information. The results provide an answer to the overall research question regarding the nature and effect, within the organisation, of the investor relations process. The four general research questions were:

How much does it cost companies (in terms of both money and organisational effort) to maintain a programme of communications with analysts and fund managers?

What methods are used by individual companies in getting their message across?

What information is communicated to analysts?

What are the opinions of companies regarding the costs and benefits of communicating with analysts?

The responses to the different sections of the questionnaire will now be considered in turn with the aim of highlighting points of interest.

14.2.1 The organisation of the investor relations function

The survey obtained a detailed picture of the way in which companies organise their investor relations (see 9.2). It established the degree of involvement of the board of directors and the organisational arrangements for carrying out investor relations in terms of departmental structure, staffing and use of external consultants. It also established the size of investor relations budgets and consultancy costs incurred. The overall impression is that investor relations as a discipline or management activity appears to have established itself firmly within the respondent organisations.

These results can be viewed in the context of the investor relations literature reviewed in chapter 4. This literature consisted mainly of advice to management regarding the importance of investor relations with only sparse empirical evidence (see 4.6) on the status of investor relations within organisations. The findings of this study establish clearly the extent to which investor relations has captured a role within the large UK quoted company.

14.2.2 Assessing the contribution of the investor relations function

One way in which companies can assess whether the costs incurred on investor relations have yielded benefits is by commissioning surveys of City opinion. These were described in chapter 4.6 and are carried out by market research organisations such as MORI. The results here

(see 10.2) show that the majority of companies (57%) had thought it worth while to pay for such surveys. The main reason given was to assess the success of the investor relations programme. This gives further evidence of company commitment to investor relations.

14.2.3 Execution of the investor relations programme

The second general research question asked what methods of communication are used by individual companies in getting their message across. The descriptive results (see 10.3) show that the majority (at least 95%) of companies used special meetings, general meetings, telephone conversations and feedback on analysts' reports and 88% used mailing of information.

These results provide clear evidence of the extent to which analysts and fund managers have become a privileged group in terms of access to companies and receipt of information. There are policy implications here for legislators and regulators in the future. If an attempt is made in the future to ban any of the activities it is likely to have implications for the operation of the stock market.

14.2.4 Company meetings with analysts and fund managers

Meetings were researched in some detail by Lee and Tweedie (1981) and Arnold and Moizer (1984), as reviewed in chapter 6.3. Their work was referred to in drafting this section of the questionnaire and the aim was to increase knowledge about meetings by widening the scope of the questions and obtaining the point of view of the company rather than the analyst.

The third general research question asked what information is communicated by companies to analysts. In order to answer this question section 4 of the questionnaire focussed on information discussed at meetings. Topics that might be discussed at meetings

were listed and companies provided an indication of whether they were discussed along with the relative importance of each topic.

The results here (see 11.2.3) provided an interesting data set which was useful in attempting to answer the research question. The sensitive nature of the question in view of the insider dealing legislation and stock exchange listing agreement meant that the questions had to be framed in a suitable manner. It was not possible to ask directly whether price sensitive inside information was being provided to analysts.

Apart from the content of the meetings the survey also obtained data on the number of meetings and attendance at meetings in the twelve month period prior to the survey (see 11.2.2). This measurement of activity levels provides an indication of company effort and response in terms of attendance from the analysts and fund managers. No similar data was located in the literature survey and this project appears to be the first to establish data of this kind. This data is fundamental to an overall appreciation of the importance of meetings as part of the investor relations programme.

14.2.5 Telephone conversations with analysts and fund managers

The results of the questions on telephone conversations with analysts and fund managers (see 12.2) were of particular interest because they confirmed the special privilege of this group in terms of having telephone access to directors and other officials. Anecdotal evidence obtained at a research seminar (see 4.4) indicated that analysts use telephone conversations after meetings to ask questions when they do not want competing analysts to hear the answer. The findings of this study clearly show that telephone conversations with analysts and fund managers are the norm and any attempt to ban them would have an effect on the working practices of analysts with possible implications for the working of the stock market.

14.2.6 Company feedback on sell-side analysts' reports

Another way of answering the general research question regarding what information is communicated was to ask companies how cooperative they were in helping analysts with their research reports and profit forecasts. Company feedback on these can be viewed as transmission of information. The response data (see 12.3) was particularly interesting here as 94% of companies corrected factual errors in analysts' reports, 49% offered comments on the accuracy of analysts' predictions and 77% said they would comment on profit forecasts. These results can be regarded as a key finding confirming practices which would be considered by some to be unfair if not illegal.

Subsequent to this study the stock exchange has set out consultative guide-lines advising companies against correcting analysts' forecasts (see 2.8). This will probably lead to changes in behaviour in the future if companies obey the spirit of the guide-lines. Thus the findings here will be useful as a benchmark in assessing changes caused by the new guide-lines in any future research project.

14.2.7 Mailing information to analysts and fund managers

The questionnaire responses established that most companies mail official information to analysts (see 12.4) but a small number (23%) send out documents designed specially for analysts. This finding is in accordance with Ryder and Regester's (1989) recommendation that a company fact book should be prepared as part of the investor relations effort (see 4.3).

Of particular interest is the fact that many companies send stock exchange company news service announcements to analysts and fund managers (see table 12-2) when individual shareholders are not so well informed. Once again, the analysts and fund managers appear to be a privileged group in terms of information mailed to them.

14.2.8 Company close seasons

The results here (see 12.3) establish for the first time in a comprehensive manner the variety of practices regarding close seasons. At the pilot stage the researcher was alerted to the fact that some close seasons are not in fact completely close. This was investigated by amending the questionnaire accordingly and asking companies to explain in writing how they restricted rather than prohibited communication during their close seasons. One respondent wrote here 'the investor relations officer knows his job' implying that skill and judgement was involved in coping with the situation.

The London Stock Exchange conference for industry (1988) proceedings discussed the problem of analysts pressurising companies for information prior to results announcements (see 4.7). Subsequent to this survey the London Stock Exchange (1993) consultative document on the dissemination of price sensitive information has recommended that if companies wish to have an in-house rule regarding close seasons they should still announce price sensitive information where necessary. They should also issue correcting statements in the normal way if a false market is developing in their shares.

The matter of company close seasons is likely to be subject to further discussion and scrutiny in the future and so the results of this survey provide a useful picture of the situation at the time.

14.2.9 Opinions on company relationships with analysts and fund managers

The fourth general research question was what are the opinions of companies regarding the costs and benefits of communicating with analysts. The questionnaire attempted to answer this by asking for respondents' views on the quality of research carried out on their company (see 13.3). If companies are satisfied with research this indicates that the investor relations effort has yielded some benefit. If analysts' reports are of prime importance in determining

stock market prices and perceptions of company prospects then, if a company is unsatisfied with research this indicates that investor relations is a cost with no benefit. The findings showed that 52% rated analysis as acceptable, 42% considered it to be good and only 4% rated it as poor with 2% rating it as very good.

Respondent were also asked for their opinions on the value of investor relations activities conducted for the benefit of sell-side analysts and buy-side analysts and fund managers. The overall impression from the results was that companies found the investor relations process valuable.

The opinions expressed here by the respondents indicate a general level of satisfaction with the status quo and this evidence should be useful to policy makers in proposing changes. It might, for example, be argued that as the current system seems to be working well then an imposition of additional regulation is undesirable.

14.2.10 The achievement of the descriptive statistics in answering the general research questions

Overall the data set obtained from the questionnaire survey has been successful in answering the research questions. The results as presented provide for interested parties a comprehensive and detailed description of the investor relations process as it was carried out at the time of the survey. The special relationship between companies and analysts and fund managers is clearly established and this provides an insight into the workings of the capital marketplace especially regarding the provision of information.

Lee and Tweedie (1981), Arnold and Moizer (1984) and Day (1986) all commented on company contacts with analysts and suggested that this was an area worthy of further investigation (see 6.3). Their comments provided the initial impetus for this project and it is clear that the information obtained by this survey is a useful addition to our understanding of the workings of the stock market.

14.3. Hypothesis testing of variables representing costs of and effort devoted to investor relations against the independent variables

14.3.1 Introduction

The overall research question sought to establish the causes of the investor relations process. In order to help answer this question nine specific research questions were formulated as testable hypotheses. The underlying rationale was that companies should only devote cash and organisational resources to investor relations if there is a reason for doing so. As the descriptive results showed, there were wide differences between companies in terms of costs incurred on, and effort devoted to, the investor relations process. Different company characteristics might help to explain different activity levels.

The selection of the nine hypotheses and the independent variables used for testing was influenced by previous literature on information disclosure in company accounts.

From the questionnaire responses a number of categorical, ordinal or continuous variables were extracted and used for hypothesis testing. It was decided to use both univariate and multivariate tests in the analysis. The tests used were the Pearson and Spearman rank correlation, the Kruskal-Wallis test and the chi-square test. For the continuous dependent variables stepwise regression and multiple regression analysis was used.

In respect of data on the organisation of the investor relations function there were five continuous variables and four ordinal variables measuring effort devoted to investor relations (see 9.3 and 9.4).

The data on surveys of City opinion was used to provide three continuous measures and one ordinal measure of effort devoted to investor relations (see 10.4 and 10.5).

The data on the execution of the investor relations programme was then considered. The perceived importance of each of the five types of investor relations activity was used to construct an index of investor relations activity. On the basis that a company is likely to devote investor relations effort to an activity it considers important it was felt that this index might be a proxy measure of investor relations effort.

The results on company meetings with analysts and fund managers were then considered. Eight continuous measures relating to the number of meetings and size of audience were obtained and used as a measure of effort devoted to investor relations.

Responses obtained on company feedback on analysts' reports were used to obtain two continuous measures, the number of reports produced and reports passed to the company for comment (see 12.5).

There were two ordinal measures of investor relations effort contained in the data on mailing information, whether or not the company mailed information at all to sell-side analysts and/or to buy-side analysts and fund managers (see 12.5). Data on the size of mailing lists yielded two continuous variable measures of effort devoted to investor relations.

The continuous measurements of investor relations cost or effort were compared with each other to see if any were highly correlated but this was found not to be the case. There might be some case for trying to combine the measurements to form an index of investor relations effort similar to the disclosure indices used by researchers in measuring disclosure in company accounts. It was not considered feasible to attempt this with the current survey data set. The problem here is similar to measurement of, for example, educational attainment. Educational attainment is an underlying variable not amenable to direct measurement. Attainment scores for

Table 14-1 Significant results for hypothesis testing by univariate analysis of 20 dependent variables measuring investor relations cost or effort against the continuous independent variables

	TEST 1	+ COEFF	- COEFF
SIZE AV(MV)	19	19	0
MARKETABILITY LISTINGS TRADFREQ	17 17	17 0	0 17
RISK BETA VARIAB SPECRISK	5 7 16	5 0 0	0 7 16
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	4 1 7 2	0 1 2 1	4 0 5 1
GEARING 731CG 732IG 733BR	7 5 10	7 5 10	0 0 0
TAKEOVER ACTIVITY TAKEOVER	0	0	0
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	13 15 15	0 0 0	13 15 15
MAXIMUM	20	20	20

NOTE:

TEST 1 = The number of times the Spearman Rank correlation between the independent variable and the 20 dependent variables was significant at the .05 level (two tail test).

+ COEFF = Indicates the number of positive correlation coefficients

- COEFF = Indicates the number of negative correlation coefficients

Dependent variables are: INDEX, DIRDDAYS, BUDGET, COSTS, SURVEYS(A), SURVEYS(B), SURVEYS, ACTIVITY, GENERALS, SPECIALS, LIST(A), LIST(B), ANALYST(A), ANALYST(B), FIRMS, INVESTORS, REPORTS, COMMENT, BROKERS, INSTINV. (see glossary for definition)

mathematics, English and other subjects can be combined to build up an overall picture but the individual subject scores may not be highly correlated.

In summarising the results of the hypothesis testing it should be noted that 21 continuous measures of costs or effort devoted to investor relations were extracted from the data. Most of these were straightforward answers to questions but there were two constructed variables or activity indices. Univariate analysis using two-tail tests of significance of the correlation coefficients for the continuous independent variables and the Kruskal-Wallis test for the categorical independent variables was carried out. Stepwise regression and multiple regression was then carried out for twenty of the dependent variables (see tables 14-1, 14-2 and 14-3). (The variable for the percentage of the directorate involved in investor relations (%DIRINIR) was not used in multivariate analysis for reasons stated in chapter 9.4.)

Additionally, there were seven ordinal dependent variables measuring investor relations activity which were tested using the Kruskal-Wallis test against the continuous independent variables and using the chi-square test with the categorical independent variables (see tables 14-4, 14-5 and 14-6).

The summary tables 14-1 to 14-6 provide an overview of the detailed results of the hypothesis testing as summarised in the results chapters.

14.3.2 Achievements of the hypothesis testing

A review of tables 14-1 and 14-2 reveals that the hypotheses selected and employed in the univariate analysis have established a number of significant associations between the investor relations variables and the independent variables. The multivariate testing has provided additional confirmation of the importance of some of the independent variables identified as important in the univariate analysis. This

Table 14-2 Significant results for hypothesis testing by multivariate analysis of 20 dependent variables measuring investor relations cost or effort against the continuous independent variables

	TEST		TOTAL	COEFF	
	2	3		+	-
SIZE AV(MV)	13	1	14	14	0
MARKETABILITY LISTINGS TRADFREQ	14 3	1 1	15 4	15 1	0 3
RISK BETA VARIAB SPECRISK	5 0 2	0 2 1	5 2 3	4 1 3	1 1 0
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	1 0 3 0	2 2 0 0	3 2 3 0	1 1 1 0	2 1 2 0
GEARING 731CG 732IG 733BR	1 2 0	2 3 2	3 5 2	2 0 1	1 5 1
TAKEOVER ACTIVITY TAKEOVER	2	1	3	3	0
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	1 2 1	4 7 4	5 9 5	0 0 5	5 9 0
MAXIMUM	20	20	20		

NOTE:

TEST 2 = The number of times the independent variable entered the regression equation using the Minitab stepwise routine with the critical F-value set at the default value of 4.

TEST 3 = The number of times the independent variable entered the regression equation using the Minitab stepwise routine with the critical F-value set at the value of 2.

COEFF +/- = The number of times the variable entered the regression equations with a positive/negative coefficient

analysis has also succeeded in explaining up to 47% of the variation observed in the investor relations variables. This is a good achievement for an exploratory study with a tentative model adapted from existing literature in a different subject area.

Of particular note is the fact that company size was significantly positively associated with the investor relations variables in 19 out of 20 cases. This result is in agreement with the empirical results in the disclosure literature which found that increased disclosure was associated with company size. The multivariate analysis supports this conclusion for 14 out of 20 investor relations variables.

The next important finding is that the existence of overseas listings (LISTINGS) is an important explanatory variable associated with increased investor relations effort in both the univariate and multivariate analysis.

Although trading frequency in the UK (TRADFREQ) and specific risk (SPECRISK) were frequently significantly associated with the investor relations variables in the univariate analysis the results of the multivariate analysis did not confirm the importance of these variables.

Another important finding is the significant negative correlation between insider shareholdings (BFA%) and substantial shareholdings (TOTSSH and NOOFSSH). Even though the multivariate analysis appears to give less support to the importance of these variables, the total substantial shareholdings figure is included in 9 out of 20 of the regressions identified by the step-wise routines.

The summary table 14-3 supplements the information in 14-1 as it shows the results of testing the investor relations variables against categorical versions of some of the continuous variables. In particular these results confirm that the existence of an overseas listing (OSEALIST) and frequent trading in the UK (TFCAT and ALPHA) is frequently significantly associated with a greater investor relations effort.

Table 14-3 Summary of significant results for Kruskal-Wallis tests of continuous dependent variables and the categorical independent variables

Independent variable	OSEALIST	TFCAT	ALPHA
Organisational variables			
%DIRINIR	*		
INDEX		*	
DIRDAYS		*	*
BUDGET	*	*	*
COSTS	*	*	*
Surveys variables			
SURVEYS(A)	*		
SURVEYS(B)			
SURVEYS	*		
Activity index			
ACTIVITY	*	*	*
Meetings variables			
GENERALS	*	*	*
SPECIALS	*	*	*
LIST(A)	*	*	*
LIST(B)	*	*	*
ANALYST(A)	*	*	*
ANALYST(B)	*	*	*
FIRMS	*	*	*
INVESTORS	*	*	*
Feedback variables			
REPORTS	*	*	*
COMMENT	*	*	*
Mailing list variables			
BROKERS	*	*	*
INSTINV	*	*	
TOTAL	18	17	15
MAXIMUM	21	21	21

NOTE: The * indicates that the Kruskal-Wallis test was significant at at least the .05 level.

Another facet of the analysis is summarised in table 14-4. This deals with the ordinal measures of investor relations effort that were extracted from the questionnaire responses in order to supplement the continuous variable data. The results in this table support the impression gained from table 14-1 that size, marketability and shareholder details are the variables most often significantly associated with investor relations effort in the univariate analysis.

As noted above it is considered that the multiple regression model has achieved a good result in that the R-square adjusted went up to 47% in the various models selected by the stepwise routine for each investor relations variable. Reviewing the results in detail for the organisational variables, the R-square adjusted for BUDGET was 38.9%, for COSTS 22.6%, for DIRDAYS 6.6% and for INDEX (of Director involvement) 5.0%. This indicates perhaps that future efforts should be devoted to extracting and modelling data on actual costs incurred rather than on indirect measures of investor relations related to director effort.

For the surveys variables the R-square was 13.9% for SURVEYS(A), 1.0% for SURVEYS(B) and 6.1% for SURVEYS. This would suggest that the commissioning of surveys is not particularly well explained by the model used in this study.

The activity index variable (ACTIVITY) was not well explained by the model as the achieved R-square was only 3.2%. This was a constructed variable, as was INDEX which also yielded a poor result. This indicates that care should be taken in the future if any efforts are made to construct an overall investor relations disclosure index similar to the disclosure indices popularly used in measuring disclosure in annual reports.

The meetings variables yielded good results. the achieved R-square (adjusted) was 16.3% for GENERALS, 23.5% for SPECIALS, 46.4% for LIST(A), 19.8% for LIST(B) 45.8% for ANALYST(A), 31.5% FOR ANALYST(B), 34.4% for FIRMS and 27.3% for INVESTORS. The feedback variables had an R-square (adjusted) of 25.7% for REPORTS and 23.9%

Table 14-3 (continued) Summary of significant results for Kruskal-Wallis tests of continuous dependent variables and the categorical independent variables

Independent variables	SSH(Y/N)	4WAYINDC
Organisational variables		
%DIRINIR		*
INDEX		
DIRDAYS		*
BUDGET	*	*
COSTS	*	
Surveys variables		
SURVEYS(A)	*	
SURVEYS(B)		*
SURVEYS	*	
Activity index		
ACTIVITY		
Meetings variables		
GENERALS		*
SPECIALS		
LIST(A)	*	
LIST(B)	*	
ANALYST(A)	*	
ANALYST(B)		
FIRMS	*	
INVESTORS		
Feedback variables		
REPORTS	*	
COMMENT		
Mailing list variables		
BROKERS	*	
INSTINV		
TOTAL	10	5
MAXIMUM	21	21

NOTE: The * indicates that the Kruskal-Wallis test was significant at at least the .05 level.

for COMMENT. The mailing list variables had an R-square (adjusted) of 41.4% for BROKERS and 24.3% for INSTINV.

Overall the multiple regression exercise yields some encouraging results which lead to the conclusion that there is further scope for improving the model by building on the findings here.

14.3.3 Discussion of the hypothesis testing

The fact that some of the independent variables proved not to be significantly associated with the investor relations variables is not without interest. As this is an exploratory study of a complex phenomenon it is not surprising that some of the expected relationships did not emerge from the testing. The results obtained from the prior research on disclosure were discussed in the chapter proposing the hypotheses and were not consistent among researchers apart from the fact that size was consistently associated with higher disclosure. This is broadly in line with the findings here. This study proposed a relatively large number of hypotheses and in some cases used more than one independent variable per hypothesis. The disclosure index literature used in formulating the hypotheses typically employed fewer independent variables and used only one dependent variable. It was felt appropriate to select nine hypotheses in this study as there was no a priori reason for discarding any of them and the study was of an exploratory nature.

At the analysis stage there was a problem of missing values. In completing the questionnaire respondents tended to answer all the simple yes/no and ranking questions but fewer provided detailed figures such as amounts of money spent on investor relations. The number of respondents out of 325 answering a particular question is clearly shown in the results tables and should be borne in mind when interpreting the results.

There were also missing values for the independent variables, particularly for accounting numbers extracted from Datastream (see

Table 14-4 Summary of significant results for Kruskal-Wallis tests of 7 ordinal dependent variables measuring investor relations cost or effort against the continuous independent variables

	NUMBER OF SIGNIFICANT RESULTS
SIZE AV(MV)	6
MARKETABILITY LISTINGS TRADFREQ	6 6
RISK BETA VARIAB SPECRISK	0 2 3
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	0 1 2 3
GEARING 731CG 732IG 733BR	1 0 2
TAKEOVER ACTIVITY TAKEOVER	0
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	4 3 3
MAXIMUM	7

NOTE: Dependent variables were IROFFICER, IRSTAFF, IRDEPT, IRCONS, SURVEYS(Y/N), MAILING(A), MAILING(B). (see glossary for definition)

table 8-4). In some cases this was because the accounts were not available to Datastream but also because the ratios selected were not available for some financial companies. The risk measures from the London Business School Risk Measurement Service were missing for sixteen companies, the main reason being that they were recently quoted and not enough data was available at the time of the survey to calculate beta, variability and specific risk.

The univariate tests dealt with missing values on a pairwise basis but when multiple regression was used a case was dropped if any of the independent variables was missing (listwise deletion). Another approach might be to discard all cases with missing values when calculating univariate tests. In view of the small number of missing values and the fact that Minitab did not offer a listwise deletion option when calculating a correlation matrix this was not pursued.

Use was made of the multiple regression model because previous researchers had employed this technique when modelling disclosure in company accounts. Cooke (1989) used stepwise regression routines with variables representing quotation status, number of subsidiaries in group, and company size, to attempt to explain disclosure as measured by an index. He achieved an R-square of around 60%. Chow and Wong-Boren (1987) used firm size, gearing and proportion of fixed assets to total assets as independent variables and a disclosure index as the dependent variable and achieved an R-square of 15%. Gray and Roberts (1988) used stepwise regression to model disclosure scores against turnover, gearing, diversification by line of business and geographically and trading profit as a percentage of turnover. Their achieved R-square was 45% for disclosure scores based on UN requirements and 24% for total disclosure scores. This project used 20 different investor relations cost or activity measures as the dependent variable in stepwise regression. This was followed by multiple regression using independent variables identified by the stepwise routine. As noted above, the best achieved R-square was around 47% with 6 out of 20 regressions achieving an R-square over 40%. This is considered to be a success as the area is new to empirical investigation and the results bear comparison with the disclosure literature which has been carried out over many years

Table 14-5 Significant results for Kruskal-Wallis tests of 7 ordinal dependent variables measuring investor relations cost or effort against the continuous independent variables

	IROFFICER	IRSTAFF	IRDEPT
SIZE AV(MV)	*	*	*
MARKETABILITY LISTINGS TRADFREQ	* *	* *	* *
RISK BETA VARIAB SPECRISK	*	* *	
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC		* *	*
GEARING 731CG 732IG 733BR		*	
TAKEOVER ACTIVITY TAKEOVER			
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	* * *	* * *	*

NOTE:

The * indicates that the Kruskal-Wallis test was significant at at least the .05 level

There were no significant results for IRCONS so it has not been included in the table

allowing researchers to refine their models in the light of experience.

There are problems involved in using the multiple regression model. Firstly, it is based on a linear relationship and this may not be appropriate in explaining investor relations although there is no a priori reason to suggest that a quadratic or any other type of function would be more appropriate. The next problem is the effect of omitted variables. It was not possible to include all variables which might possibly affect the investor relations effort. There might be some benefit in further analysis adding additional variables. Additionally, some of the data could be improved or different time periods could be considered. The data on takeovers could be improved to include attempted mergers and perhaps take in a longer time period than the year prior to the survey.

There may be other variables that are important but which cannot easily be incorporated in the regression model. These include the company culture, whether it is secretive or open, the personality of the Chief Executive and his attitude towards investor relations, and the preferences of the Finance Director who is the person primarily responsible for the financial message sent out by the company.

As noted in the detailed results chapters, efforts were made to transform the data to achieve normality and outliers were investigated prior to input into the regression package. Residuals were examined by plotting them against individual predictor variables and the predicted values. Testing to see if residuals were normally distributed yielded satisfactory results. Multicollinearity was not a particular problem since none of the independent variable were highly correlated.

Overall then, it can be said that the data obtained in the project was subject to the usual problems inherent in this type of empirical work in the social sciences. One cannot be too dogmatic about the apparent confirmation of certain hypotheses and the rejection of others until other researchers produce findings that help build up an

Table 14-5 (continued) Significant results for Kruskal-Wallis tests of 7 ordinal dependent variables measuring investor relations cost or effort against the continuous independent variables

	SURVEYS(Y/N)	MAILING(A)	MAILING(B)
SIZE AV(MV)	*	*	*
MARKETABILITY LISTINGS TRADFREQ	* *	* *	* *
RISK BETA VARIAB SPECRISK	* *		
PROFITABILITY 707ROCE 711TPM 716PTPM 703ROSC	* * *		
GEARING 731CG 732IG 733BR	* *		
TAKEOVER ACTIVITY TAKEOVER			
SHAREHOLDER DETAILS BFA% TOTSSH NOOFSSH	* * *		

NOTE:

The * indicates that the Kruskal-Wallis test was significant at at least the .05 level

There were no significant results for IRCONS so it has not been included in the table

overall picture and understanding of the phenomenon of company communications with analysts.

14.3.4 Possible reformulation of hypotheses

With hindsight it is possible to ask the question whether the set of hypotheses selected were the best under the circumstances and whether any changes should be made in future research. All the hypotheses had been identified from previous research apart from H6 which was introduced on a priori grounds as it was felt that there might be an association between takeover activity and investor relations cost or effort.

Hypothesis H6 turned out to be the least successful in terms of significant results but this in itself is interesting. Before abandoning the hypothesis it might be worthwhile investigating other ways of measuring the dependent variable. This study looked at the number of takeovers in the 12 months prior to the survey. The period could be extended and the amounts of money involved in relation to the size of the company might be a factor worth investigating. Attempted takeovers which failed could also be considered. Another angle could be whether the company itself had been subject to a takeover bid. Perhaps the method of analysis employed is not appropriate for investigating the effect of takeovers on the investor relations process. A case study approach involving interviews could shed more light on the matter.

The industrial classification (H9) was also fairly unsuccessful in terms of significant results and in this case it might be worthwhile investigating a more detailed breakdown into industry groups rather than the four way classification that was used. This could cause problems in the statistical testing if there are only a few companies in any one industrial group.

On reviewing the summarised results in tables 14-1 and 14-2 it is apparent that hypotheses H3, H4 and H5 (risk measures, profitability

Table 14-6 Summary of significant results for chi-square tests of 7 ordinal dependent variables and the categorical independent variables

Independent variable	OSEALIST	TFCAT	ALPHA
Organisational variables			
IROFFICER	*	*	*
IRSTAFF	*	*	*
IRCONS			
IRDEPT	*	*	
Surveys variables			
SURVEYS(Y/N)	*	*	*
Mailing variables			
MAILING(A)	*	*	*
MAILING(B)	*	*	
TOTAL	6	6	4
MAXIMUM	7	7	7

Independent variables	SSH(Y/N)	4WAYINDC
Organisational variables		
IROFFICER	*	*
IRSTAFF	*	*
IRCONS		
IRDEPT		*
Surveys variables		
SURVEYS(Y/N)	*	
Mailing variables		
MAILING(A)		
MAILING(B)		
TOTAL	3	3
MAXIMUM	7	7

NOTE: The * indicates that the chi-square test was significant at at least the .05 level.

and gearing) were not overwhelmingly successful in explaining the investor relations cost or effort. One idea here would be to analyse differences. Perhaps a change in risk, profitability or gearing would be more likely to effect investor relations cost or effort.

On balance, it is probably better to carry out further investigation regarding the less successful hypotheses rather than abandoning them immediately.

The other point to consider is whether to add further explanatory variables to the model and this may well be a way forward. The degree of diversification both by product and geographically might have some bearing on the matter. A more complex company may feel the need to engage in further explanations of its activities via the investor relations effort. Although some segmental information is disclosed in UK annual reports it is still the case that a single product or single country company discloses more about its one division than a diversified company does about its various segments.

Another possible variable is the recent issue of capital, either by an existing company or as a result of privatisation. It might be expected that this type of event would increase the need to keep the markets informed via the investor relations process.

Another possibility worth investigating is the stability of the board of directors. Where directors have been ousted or new directors brought in in response to business difficulties this may effect the investor relations effort. However, business difficulties are likely to be reflected in falling profits so this idea is linked to hypothesis H4.

Overall then it may be worth carrying out further investigations regarding the hypotheses used in this study and adding some further hypotheses in an attempt to improve the explanatory power of the model.

14.4 Advantages and disadvantages of the questionnaire survey technique

The questionnaire approach has many advantages and it was felt that it was particularly suitable for this project. Use of a questionnaire enables the researcher to reach a large number of respondents and obtain data in a form suitable for statistical analysis. The fact that little was known about company communications with analysts indicated that a comprehensive questionnaire approach would be a good idea in order to establish a wide ranging knowledge base. If a good response rate is obtained to a questionnaire survey conclusions can be drawn about the population as a whole and hypothesis testing and modelling can be carried out. In contrast, case study research does not supply information about the population and time constraints usually severely restrict the number of respondent organisations.

This project achieved a good response rate which was viewed as a positive sign that the questionnaire was well designed, easy to answer and concerning matters that were of interest to the respondents. As an incentive to respond, companies were promised a summary of the results. This was issued in the form of a 62 page booklet containing results tables and summary comments. A number of recipients wrote or telephoned to indicate that they ~~was~~ interested in the results and pleased to have received them.

also x

The use of a postal questionnaires has some disadvantages. Respondents may answer incorrectly, either mistakenly or deliberately. This problem would also occur with interviews and even if participant observation were used the presence of the observer would affect behaviour. There was some inconsistency in some answers and this was noted in the detailed review of the results. This probably arose when respondents were trying to fill the survey in as quickly as possible and not taking great care. The inconsistencies noted were not considered to be serious. However, the answers given by companies did appear to agree with the picture built up from anecdotal evidence, from academic literature and the financial press. For example, many companies admitted to giving analysts guidance on

their profit forecasts, an activity which could be interpreted as being illegal or at least against stock exchange rules. It would have been surprising if no company had admitted to this and would possibly have indicated that questionnaires were not being filled in truthfully.

Another problem with this particular survey is that the questionnaire was only completed by one respondent, usually the finance director, to whom the letter was addressed. In some cases the questionnaire was passed to the investor relations officer or equivalent for completion. The facts regarding the investor relations process are likely to be independent of the identity of the respondent but the opinions could differ. Any opinion surveys should perhaps be directed to personnel at different levels within the organisation. In particular, an investor relations officer is likely to be devoted to the discipline and keen to maintain its importance within the organisation whereas the Chief Executive may be more likely to view investor relations activities as a waste of time.

14.5 Possibilities for further development of a theory of investor relations

At this stage it is worth considering whether the combination of the literature review and the research findings can be reevaluated to provide an improved theory or model of investor relations. The original model, used in formulating the hypotheses, was that investor relations is essentially part of the information disclosure process. It consists of voluntary disclosures, primarily concerned with financial matters, by informal methods as compared to the traditional conduit of the annual reports and accounts. Voluntary disclosure will be made by companies if the benefits outweigh the costs, although there are severe practical difficulties involved in measuring the likely and actual costs and benefits of particular disclosures. The approach taken by previous researchers into disclosure in company accounts is that it can be explained by company specific variables such as size, capital structure, performance,

organisational aspects and environmental factors. The project focussed on trying to apply this model to the investor relations activity. The results provided by the hypothesis testing provided a starting point for further investigations.

The results of this project clearly establish that the market contains a set of privileged individuals, the analysts and fund managers. Whether this is acceptable or not can be considered by examining the idea of a market for inside information and the implications for regulation of such a market.

Investor relations can be viewed as a company's reaction to the information demands of the capital market place, these demands emanating in particular from expert users of accounting information and important customers for the firm's capital. If government and stock exchange restrictions on insider dealing were removed it might be possible for a market for inside information to exist. This market would be subject to a number of problems. The company itself would be a monopoly provider of the information, there would be a large number of potential buyers of information containing a powerful, small, subgroup of analysts and fund managers. Monopolist monopsonist bargaining may thus result. Information asymmetry would make contracting difficult, companies would not want to reveal the information to potential buyers as this could destroy the basis for the exchange. Even expert analysts cannot predict the effect of a particular piece of information on the share price and future prospects of the company and they would have to adjust the price offered accordingly. Also the value of a piece of inside information depends on the number of people it is sold to. Analysts would pay more for exclusive rights to information and there would be agency cost problems if contracts were made on this basis.

If information is a public good and an efficient, liquid and transparent stock exchange is the mainstay of a market capitalist economy then a market for inside information would require some level of regulation. The nature of UK institutional structures is such that all capital markets are subject to regulation. The regulation provides a level of control over, and for the benefit of, the market

participants. If analysts were able to purchase inside information some degree of regulation would be necessary to ensure that there was a positive effect on the market as a whole.

To return to the real world it could be argued that investor relations is the institutionalisation of a group of transactions in the absence of a market. The market is prevented from operating by government intervention. Even without such intervention the market is likely to fail, or at least suffer from imperfections, for the reasons outlined above. Coase's (1937) theory of the firm and internalization theory (Buckley and Casson, 1976) are useful in considering the growth of the firm as an alternative to organising transactions in the market place. These theories are possibly of some relevance, with adaptation, to investor relations. In the absence of a market for inside, unpublished information, an institution, the investor relations industry, has evolved to overcome this failure. This institution is not contained within the firm but there is nonetheless a stable pattern of transactions whereby meetings are held, telephone calls made, site visits conducted, mailshots sent out and research reports reviewed. The transaction involved is the exchange of information in return for the possible provision of capital. The provision of the annual and interim report and accounts as required by law and statute can be viewed as the main information source with the investor relations function serving in an auxiliary capacity.

Another possible line of enquiry is the idea that companies are effectively coerced into providing an investor relations programme for analysts and fund managers. They may fear that failure to respond to information demands will lead to penalties. These could include lack of institutional investment, fewer share transactions and lower liquidity in the market for their shares, inadequate analysis made available to prospective investors and misunderstanding of financial reports.

At this stage it appears that investor relations, in common with other economic and social phenomena, is likely to be the subject of competing or complementary theories and model building attempts. The

author considers that the voluntary financial reporting model employed in this analysis has proved useful and appropriate.

14.6 Further research

If company communications with analysts are deemed to be worthy of further investigation it is suggested that the use of different research methods would provide valuable additional insights. More case study research involving observations of general meetings, special meetings and site visits would be interesting. Examination of documents produced specially for analysts is another possible area of research which would illuminate the subject of company perceptions of analysts' information needs.

There is also scope for comparative international research, comparing investor relations in the UK with the US and countries with less developed stock exchanges. Particularly interesting would be an investigation of investor relations in the newly industrialising, high growth economies of the Pacific Rim and the struggling, former Soviet Bloc countries.

The changing situation in the UK means that a longitudinal study would be useful. This could repeat the original survey once the Criminal Justice Act provisions, tightening up insider dealing legislation, have taken effect. As noted above (see 14.2.1), the London Stock Exchange is also consulting with a view to revising its rules on investor relations. Such a study would contribute to the debate, current in political as well as academic circles, regarding the costs and benefits of regulation. As an example, consider the normal routine when financial scandals emerge. There is usually an outcry demanding that the government should do something about it, both to compensate the losers and prevent it happening again. Regulation costs the tax-payer money, civil servants must be employed to enforce the regulations and the regulated firms incur costs of compliance which are then passed on to their customers. There have been some extremely lengthy, expensive fraud trials recently which

have collapsed or resulted in acquittals. This has called into question the role of the government's Serious Fraud Office, the jury system and the value of legislation which ultimately fails to punish even a small percentage of the guilty.

Returning to the subject of investor relations, it would be interesting to see if the answers to the questionnaire are different once the new regulatory regime gets underway. This would provide a measure of the effect, if any, of the change in the rules. There would also be scope for related research such as whether the new rules make the market more or less efficient and whether analysts perform better or worse or perhaps lose their jobs once inside information is less available to them and their value subsequently decreases. On the other hand, it may prove to be the case that the new rules will have little or no effect on practice.

There are several topics closely related to this research project that would be worth investigating. The survey concentrated on one side of the investor relations process, the quoted company. It would be most interesting to carry out a similar study but from the point of view of the audience, the analysts and fund managers.

The provision of financial information via the annual report and other official documents is clearly closely linked to the investor relations process. It would be valuable to investigate the extent to which annual reports fail to provide the information that is required in the market place. The failure of the annual report could be a cause of the investor relations process and an improved report process could remove the need for investor relations. Such an investigation would help accounting standard setters and regulators.

Since this survey was carried out in 1991 there has been a resurgence of interest in the subject of corporate governance. This has focussed on the desirability of controls such as audit and remuneration committees. It can be suggested that the conduct of a companies investor relations programme should comply with the principles of good corporate governance. Selective briefing of analysts and leaks of price sensitive inside information are not in

accord with good corporate governance. It would be interesting to test for an association between well organised and controlled investor relations that complies with law and regulation and other indicators such as a proactive audit committee.

When analysing the questionnaire results a number of areas where the questions could have been improved in order to extract superior information were noted. For example, the number of companies providing details of investor relations budgets was rather low and it was not possible to say what expenses were included in the budget figures provided. It might have been better to ask for details of the cost of producing the annual report separately from other costs. Respondents could also have been asked to indicate what costs were included in the budget. This would have provided additional valuable insights into what areas of expenditure are viewed as part of the costs of investor relations.

The meetings section of the questionnaire did not ask specifically about site visits and perhaps this should have been included as a separate category although it was felt at the time of drafting that these could be considered as a form of meeting. There might also have been some value in investigating the reasons for calling meetings. Regular results announcement meeting can be contrasted with meetings to discuss situations that have arisen and need explanation.

The questionnaire only dealt fairly briefly with the issue of costs and benefits of investor relations. This was done by asking for respondents' opinions on the value of the various aspects of the investor relations programme. It might have been beneficial to include more detailed and searching questions in trying to answer the research question. Questions could have been asked regarding the respondents' cost benefit analysis procedures, if any. The length of the questionnaire is a limiting factor here as response rates are likely to fall if a questionnaire is very long. A structured interview approach might have been a better way of investigating this problem.

Another point of note is the wide variation in costs incurred and activity levels. The population surveyed consisted of large UK quoted companies but the variation in size stretched from companies that would be ranked as large internationally to fairly small. This suggests that a subdivision of the results might be useful. It might be expected that the results from FTSE 100 companies would present a data set with smaller standard deviations for the measured variables. Another possibility would be to examine separately the data set for internationally listed companies.

The questionnaire survey did not deal with information communicated by means of telephone conversations. It was not considered suitable to investigate this sensitive topic using the questionnaire approach. Recording telephone conversations might be possible with the agreement of an organisation. However, such an action would be likely to alter the nature of telephone conversations and perhaps cause discussion to be conducted in private, face to face and away from the business premises.

It would also be interesting to compare the documents designed specially for analysts with official material such as the annual report and establish whether any extra information is included.

It is hoped that the results of this research project and the suggestions for further research will lead to more work being carried out on the subject of investor relations.

14.7 Concluding remarks

The aim of any research project is to increase human knowledge and understanding. Investor relations is a complex phenomenon about which little was known at the time of starting the project. This exploratory study has gone some way towards increasing our knowledge of investor relations.

The descriptive results obtained provide for the first time a detailed picture of the way in which companies in the UK conduct their investor relations programmes and communicate with analysts and fund managers. The hypothesis testing has provided results indicating which company characteristics are associated with differing levels of investor relations cost and effort.

Company communications with analysts and fund managers has proved to be an interesting topic for investigation and the results obtained here should help companies, policy makers and the academic community in the future.

GlossaryAbbreviations used for independent variables

4WAYINDC	Four way industrial classification (1 = capital, 2 = consumer, 3 = other, 4 = financial)
703ROSC	Return on shareholders' capital, Datastream company accounts item 703
707ROCE	Return on capital employed, Datastream company accounts item 707
711TPM	Trading profit margin, Datastream company accounts item 711
716PTPM	Pre-tax profit margin, Datastream company accounts item 716
731CGEAR	Capital gearing, Datastream company accounts item 731
732IGEAR	Income gearing, Datastream company accounts item 732
733BR	Borrowing ratio, Datastream company accounts item 733
ALPHA	Whether a stock was rated alpha or beta on the London Stock Exchange at 7th September 1991
AV(MV)	Average market value of quoted equity for the year to 31st July 1991
BETA	Beta, the sensitivity of the share price to general market movements, as calculated by London Business School Risk Measurement service July 1991
BFA%	Percentage of equity held by board, family and associates as listed in Crawford's Directory of City Connections 1992
LISTINGS	Number of overseas stock exchange listings at 1st August 1991
LOGLIST	Log base ten of (LISTINGS + 1)
LOGTAKEO	Log base ten of (TAKEOVER + 1)
LOGTAVMV	Log base ten of AV(MV)
LOGTRADF	Log base ten of (TRADFREQ + 1)
LOGTSRSK	Log base ten of SPECRISK
NEGRBFA%	Negative reciprocal of (BFA% + 1)

NOOFSSH	Number of substantial shareholdings listed in Crawford's Directory of City Connections 1992
OSEALIST	Whether or not there were any overseas listings at 1 August 1991
SPECRISK	Specific risk, the risk of non-market related fluctuations in the share price, as calculated by London Business School Risk Measurement service July 1991
SQRTBR	Square root of (733BR + 7)
SQRTIG	Square root of (732IGEAR + 228)
SQRTOTSH	Square root of (TOTSSH + 1)
SQRTVAR	Square root of VARIAB
SSH(Y/N)	Whether or not there were any substantial shareholders (3% or more)
TAKEOVER	Number of takeovers in year to 31st July 1991
TFCAT	Whether trading was FREQUENT (0 days between trades) or LESS FREQUENT (>0 days between trades)
TOTSSH	Total percentage of equity held by substantial shareholders (holding 3% or more) as listed in Crawford's Directory of City Connections 1992
TRADFREQ	Trading frequency (time between trades in days) as calculated by London Business School Risk Measurement service July 1991
VARIAB	Variability (standard deviation) of the returns on the share as calculated by London Business School Risk Measurement service July 1991

Abbreviations used for dependent variables

%DIRINIR	The percentage of the directorate involved in managing or executing the IR programme
ACTIVITY	Index of IR activity (see 10.3)
ANALYST(A)	Number of sell-side analysts attending meetings in past 12m
ANALYST(B)	Number of buy-side analysts and fund managers attending meetings in past 12m
ANNUAL	Number of days close season prior to annual results announcement
BROKERS	Number of stockbrokers on company mailing list
BUDGET	Annual budget allocation for IR
COMMENT	Number of sell-side analysts' reports passed to company for comment in the past 12m
COSTS	Cost of external IR consultant in past 12m
DIRDAYS	Director days devoted to IR
FEEDBACK	Rank importance of providing feedback on analysts' reports
FIRMS	Number of stockbroking firms represented at meetings in past 12m
GENERAL	Rank importance of holding general meetings
GENERALS	Number of general meetings in past 12m
INDEX	The index of director involvement in IR (see 9.3.1)
INSTINV	Number of institutional investors on company mailing list
INTERIM	Number of days close season prior to interim results announcement
INVESTOR	Number of institutional investor organisations represented at meetings in the past 12m
IRCONS	Whether or not there was an external IR consultant
IRDEPT	Whether or not there was an IR department
IROFFICER	Whether there is a dedicated IR officer, an IR officer with other duties or no IR officer
IRSTAFF	Whether staff working for IR officer are dedicated to IR, their work involves other duties, or there are no staff

LIST(A)	Number of sell-side analysts on company's circulation list
LIST(B)	Number of buy-side analysts and fund managers on company's circulation list
MAILING	Rank importance of mailing information
MAILING(A)	Whether or not the company mailed information to sell-side analysts
MAILING(B)	Whether or not the company mailed information to buy-side analysts
OPINION	Opinion of general quality of analysts' reports
OTHER	Number of other organisations employing analysts on company mailing list
PROHIB	Whether or not a company operated a prohibition on communication in its close season
REPORTS	Number of sell-side analysts' reports produced in the past 12m
RESTRICT	Whether or not a company operated a restriction on communication in its close season
SEASON	Whether a company had a close season or not
SELLSIDE	Opinion on quality of analysis carried out by sell-side analysts
SPECIAL	Rank importance of holding special meetings
SPECIALS	Number of special meetings in past 12m
SURVEYS	SURVEYS(A) + SURVEYS(B)
SURVEYS(A)	Number of surveys of city opinion in past 12m
SURVEYS(B)	Number of surveys more than 12m ago, less than 5 years ago
SURVEYS(Y/N)	Whether or not any surveys had been commissioned
TELEPHONE	Rank importance of telephone conversations

Abbreviations used for statistical terms

Chi-square test tables

STD RESIDUALS Standardized residuals

Descriptive statistics tables

NOBS Number of observations
Q1 First quartile
Q2 Third quartile
SEMEAN Standard error of the mean
STDEV Standard deviation
TEST Minitab's correlation test for normality
TRMEAN 5% trimmed mean

Kruskal-Wallis test tables

H The Kruskal-Wallis test statistic
Z VALUE Indicates how the mean rank for the group differs
 from the mean rank for all the observations

Regression tables

Coef Coefficient
DF Degrees of freedom
F F-ratio
MS MS error
R-SQ Coefficient of determination
R-SQ(ADJ) R-SQ adjusted for degrees of freedom
S The estimated standard deviation about the
 regression line
SS Sum of squares

List of References and Bibliography

ACCOUNTANCY AGE. 1992. *Anti-insider dealing bill under fire from Fidler*. 17 September, p. 4.

ARDEN, M & ECCLES, G.W. 1980. *Companies Act 1980 - An Explanatory Guide*. Croydon: Deloitte Haskin & Sells and Tolley Publishing Company Ltd.

ARNOLD, J. & MOIZER, P. 1984. A survey of the methods used by UK Investment Analysts to appraise investments in ordinary shares. *Accounting and Business Research*, Summer, pp. 195-207.

ARNOLD, J., MOIZER, P. & NOREEN, E. 1984. Investment Appraisal methods of financial analysts: A comparative study of US and UK practices. *The International Journal of Accounting*, Spring, pp. 1-18.

BBC2. 1993. *The Money Programme*. 7 November.

BEATTIE, V. & JONES, M.J.J. 1992. The Use and Abuse of Graphs in Annual Reports: Theoretical Framework and Empirical Study. *Accounting and Business Research*, Vol. 22, no. 88, pp. 291-303.

BELKAOUI, A. & KAHL, A. 1978. *Corporate Financial Disclosure in Canada*. Vancouver: The Canadian Certified General Accountants' Association.

BELKAOUI, A., KAHL, A. & PEYRARD, J. 1977. Information needs of financial analysts: An international comparison. *International Journal of Accounting*, Autumn, 1977.

BELLEMORE, D.H., PHILLIPS, H.E. & RITCHIE, J.C. 1979. *Investment analysis and portfolio selection: An Integrated Approach*. Cincinnati (USA): South Western.

BHUSHAN, R. 1989a. Collection of information about publicly traded firms: Theory and evidence. *Journal of Accounting and Economics*, July, Vol. 11. pp. 183-206.

BHUSHAN, R. 1989b. Firm characteristics and analyst following. *Journal of accounting and economics*, July, Vol. 11, pp. 255-274.

- BIGGS, S. 1984, Financial analysts' information search in the assessment of corporate earning power. *Accounting Organisations and Society*, Vol. 19, no. 3/4, pp. 313-323.
- BOUWMAN, M.J. & FRISHKOFF, P. 1987. How do Financial analysts make decisions? A process model of the investment screening decision. *Accounting Organisations and Society*, Vol. 12, no. 1, pp. 1-29.
- BOWMAN, P. (ed). 1989. *Handbook of Financial Public Relations*. Oxford: Heineman Professional Publishing.
- BOYLE, A.J., BIRDS, J. & PENN, G., 1987. *Boyle and Bird's Company Law 2nd Edition*. Bristol: Jordan and Sons Limited.
- BRITON'S INDEX: INVESTMENT RESEARCH ANALYSTS. ISSN 0968 2708. 1990. [updated every four months] Canterbury, Kent: Briton and Caulton, [subsequently] Two Ten Communications.
- BROMWICH, M. 1985. *Economics and accounting standard setting*. Englewood Cliffs NJ: Prentice/Hall International.
- BROWN, P., FOSTER, G. & NOREEN, E. 1985. *Security analyst multi year earnings forecasts and the capital market. Studies in accounting research # 21*. Sarasuta, Florida: American Accounting Association.
- BRYMAN, A. 1988. *Doing research in organisations*. London: Routledge.
- BUCKLEY, P.J. AND CASSON, M.C. 1976. *The Future of the Multinational Enterprise*. London: MacMillan.
- BUZBY, S.L. 1974. Selected items of information and their disclosure in annual reports. *The Accounting Review*, Vol. XLIX, no. 3, July, pp. 423-435.
- BUZBY, S.L. 1975. Company size, listed versus unlisted stocks, and the extent of financial disclosure. *Journal of Accounting Research*, Spring, pp. 16-37.
- CERF, A.R. 1961. *Corporate Reporting and Investment Decisions*. Berkeley: University of California Press.

CHANG, L.S. & MOST, K.S. 1981. An international comparison of investor uses of financial statements. *International Journal of Accounting*, Autumn, Vol. 17, pp. 43-60.

CHOW, C.W. & WONG-BOREN, A. 1987. Voluntary financial disclosure by Mexican Corporations. *The Accounting Review*, Vol. LXII, no. 3, July, pp. 533-541.

CHAPMAN, C. 1987. *How the new stock exchange works*. (2nd edition). London: Hutchinson.

CHURCHILL, D. (ed). 1985. *The Director's guide to choosing and using a PR consultancy*. London: The Director Publications Ltd for the Institute of Directors.

[CITY AND FINANCIAL GROUP see INSTITUTE OF PUBLIC RELATIONS].

CITY CODE ON TAKEOVERS AND MERGERS. 1990. (3rd edition). London: Panel on Takeovers and Mergers.

CITY DIRECTORY 1990 (THE). (9th edition) Cambridge: Director Books, Fitzwilliam Publishing Ltd. Simon and Schuster International Group.

COASE, R.H. 1937. The Nature of the Firm. *Economica*, November, pp. 386-405.

COLLET, J. (ed). 1989. *Crawford's Directory of City Connections. Eleventh Edition 1989*. London: Crawford Publications, The Economist Publications Limited.

CONFEDERATION OF BRITISH INDUSTRY (CBI), 1987. *Investing for Britain's future: Report of the City/Industry Task Force*. London: CBI.

CONTINENTAL ILLINOIS LTD. 1980. *Ranking of UK Investment Analysts - Seventh Annual Survey*. London: Continental Illinois Ltd.

COOKE, T.E. 1989. Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research*, Vol. 19, no. 74, Spring, pp. 113-124.

CRAWFORD'S CORPORATE FINANCE. 1986. Compiled by Blackstone Franks & Co. London: Crawford Publications. The Economist Publications Ltd.

CRAWFORD'S DIRECTORY OF CITY CONNECTIONS. ELEVENTH EDITION 1989.

Collett, J. (ed). London: Crawford Publications, The Economist Publications Limited.

CRAWFORD'S DIRECTORY OF CITY CONNECTIONS. THIRTEENTH EDITION 1991.

Kinloch, A. (ed). London: The Economist Directories, The Economist Publications Limited.

CRAWFORD'S DIRECTORY OF CITY CONNECTIONS. FOURTEENTH EDITION 1992.

Kinloch, A. (ed). London: The Economist Directories, The Economist Publications Limited.

CRAWFORD'S INVESTMENT RESEARCH INDEX 1987-88. 1987. Purnell, S. (ed).

London: Crawford Publications, The Economist Publications Limited.

DARK, S. 1988. Corporate finance's information arm. *Accountancy*, April, p. 77.

DATASTREAM. 1990. *Datastream Definitions Manual*. Issue 1 September 1990. Datastream International Limited.

DATASTREAM. 1992. *Company Accounts Definitions Manual*. Issue 4 October 1992. Datastream International Limited.

DATASTREAM. 1992. *Indices, interest and exchange rates manual*. Issue 2 May 1992. Datastream International Limited.

DAY, J.F.S. 1986. The use of annual reports by UK investment analysts. *Accounting and Business Research*, Autumn, pp. 295-307.

DEPARTMENT OF TRADE AND INDUSTRY (FINANCIAL SERVICES DIVISION) [not dated, issued 1989] *The Law on Insider Dealing. A Consultative Document*. London: Department of Trade and Industry.

DIGNAN, J. 1989. As others see us. *Professional Investor*, November, Vol. 1, no 2, p. 29.

DEWE, R. 1985. Financial public relations. In Churchill, D. (ed). *The director's guide to choosing and using a PR consultancy*. London: The Director Publications Ltd. pp. 39-42.

ERICKSON, B.H. & NOSANCHUK, T.A. 1979. *Understanding Data*. Milton Keynes: The Open University Press.

EUROPEAN COMMUNITY. 1989. Council Directive of 13 November 1989 coordinating regulations on insider dealing, *Official Journal of the European Communities* Vol. 32, pp. 30-32.

EUROPEAN FEDERATION OF FINANCIAL ANALYSTS SOCIETIES [not dated, publicity pamphlet issued 1989]. *Federation Europeene des Association D'Analystes Financiers. The European Federation of Financial Analysts Societies*. Paris: The European Federation of Financial Analysts Societies.

EXTEL FINANCIAL 1988. *15th Annual Survey. Ranking of UK Investment Analysts*. London: Extel Financial Limited.

EXTEL FINANCIAL 1991. *18th Annual Survey. Ranking of UK Investment Analysts*. London: Extel Financial Limited.

FINANCIAL TIMES. 1991. *London Share Service*. Weekend September 7/September 8. pp. 20-21. London: The Financial Times Limited.

FINANCIAL TIMES. 1991. European Top 500 [Supplement]. *Financial Times*, 11 January 1991. London: The Financial Times Limited.

FINANCIAL TIMES. 1992. European Top 500 [Supplement]. *Financial Times*, 11 January 1991. London: The Financial Times Limited.

FINANCIAL ANALYSTS FEDERATION. 1989. *Bylaws (Article 12), Code of Ethics, and Standards of Professional Conduct*. Charlottesville, VA: Financial Analysts' Federation.

FIRTH, M. 1978. A study of the consensus of the perceived importance of disclosure of individual items in corporate annual reports . *International Journal of Accounting*, Autumn, Vol. 14, pp. 57-70.

FIRTH, M. 1984. The extent of voluntary disclosure in corporate annual reports and its association with security risk measures. *Applied Economics*, Vol. 16, pp. 269-277.

FORKER, J.J. 1992. Corporate Governance and Disclosure Quality. *Accounting and Business Research*, Vol. 22, no. 86, pp. 111-124.

- FOSTER, A. 1993. Exchange cracks down on private briefings. *Financial Times*. 15 May, p. 1.
- FREEBORN, T. 1988. Sharing the information's wealth. *Accountancy Age*, 22 September, p. 33.
- GIBBS, P.M.D. & SEWARD, W.T. 1983. How an investment analyst uses a profit forecast and makes his own. In Westwick, C.A. (ed). *Profit forecasts: How they are made, reviewed and used*. Aldershot, Hants: Gower. pp. 134-147.
- GILLIS, J.G. 1988. Insider trading. In Levine, S.N. (ed). *The Financial Analysts' Handbook (2nd edition)*. Homewood, Illinois (USA): Dow Jones Irwin. pp. 1765-1808.
- GNIEWOSZ, G. 1990. The share investment decision process and information use: An exploratory case study. *Accounting and Business Research*, Vol. 20, no. 79, pp. 223-230.
- GRAY, S.J. & ROBERTS, C. 1989. Voluntary information disclosure and the British Multinationals. In Hopwood, A. (ed). *International pressures for accounting change*. Hemel Hempstead: Prentice Hall. pp. 116-139.
- GRAY, S.J., RADEBAUGH, L.H. & ROBERTS, C.B. 1990. International perceptions of cost constraints on voluntary information disclosures: A comparative study of UK and US multinationals. *Journal of International Business Studies*, Fourth Quarter, pp. 597-622.
- GREAT BRITAIN. 1980. *Companies Act 1980*. London: HMSO.
- GREAT BRITAIN. 1981. *Companies Act 1981*. London: HMSO.
- GREAT BRITAIN. 1985. *Company Securities (Insider Dealing) Act 1985*. London: HMSO.
- GREAT BRITAIN. 1986. *Financial Services Act 1986*. London: HMSO.
- GREAT BRITAIN. 1993. *Criminal Justice Act 1993*. London: HMSO.
- GUMMER, P.S. 1987. Financial public relations. In Hart, N.A. (ed). *Effective corporate relations*. London: McGraw Hill. pp. 39-58.

- HAMBRO COMPANY GUIDE. 1989. Issue 24 November to January 1989. London: Hemmington Scott Publishing Limited.
- HART, N.A. 1987. *Effective corporate relations - Applying public relations in business and industry*. London: McGraw Hill.
- HAYES, R. 1989. Consultants or in house: Roles and relationships. In Bowman, P. (ed). *Handbook of Financial Public Relations*. Oxford: Heinemann Professional Publishing. pp. 146-150.
- HILTON, A. 1989. Why fast news means good news for investors. *Accountancy Age*, 16 November, p. 11.
- HILTON, A. 1993. Insider trading law will leave City flying blind. *Accountancy Age*, 28 January, p. 15.
- HINDNESS, B. 1977. *Philosophy and methodology in the social sciences*. Hassocks, Sussex: The Harvester Press.
- HIRST, I.R.C. 1988. Stockbrokers' research in the UK: determinants and effects. *Edinburgh University Working Paper (unpublished)*, June.
- HOLLIS, J. 1989. The ethical jungle. *Handbook of Public Relations*. Oxford: Heinemann Professional Publishing. pp. 67-73.
- HOPWOOD, A.G. (ed). 1989. *International pressures for accounting change*. Hemel Hempstead, Herts: Prentice Hall International (UK) Ltd.
- HOUSE OF LORDS AND HOUSE OF COMMONS 1992. Criminal Justice Bill (H.L.) Bill 104. London: HMSO.
- INDEPENDENT (THE). 1993. *Exchange should publish and be damned*. Friday 5th November, p. 34.
- INGRAM, D.H.A. 1987. Change in the stock exchange and regulation of the city. *Bank of England Quarterly Bulletin*, February, Vol. 27, pp. 54-65.
- INNOVATION ADVISORY BOARD. DTI INNOVATION UNIT. 1991. *Innovation Plans Handbook*. London: HMSO.
- INSTITUTE OF DIRECTORS. 1985. *Guide to boardroom practice No 7: Insider Dealing*. (2nd edition). London: Institute of Directors.

INSTITUTE OF INVESTMENT MANAGEMENT AND RESEARCH. 1992. *Report and Accounts for the year ended 31st July 1992*. Bromley, Kent: Institute of Investment Management and Research.

INSTITUTE OF PUBLIC RELATIONS - CITY AND FINANCIAL GROUP. 1990. *Interim report on the conduct of financial communications*. London: Institute of Public Relations.

INSTITUTE OF PUBLIC RELATIONS - CITY AND FINANCIAL GROUP. 1991. *The conduct of financial communications, final report of the Institute of Public Relations City and Financial Group Working Party*. London: The Institute of Public Relations.

INTERNATIONAL SOCIETY OF FINANCIAL ANALYSTS. 1989 *International Society of Financial Analysts* [publicity pamphlet] Charlottesville, VA: International Society of Financial Analysts, Financial Analysts' Federation.

[INTERNATIONAL STOCK EXCHANGE see also LONDON STOCK EXCHANGE]

INTERNATIONAL STOCK EXCHANGE. 1988. *Firms and Members* [three editions per annum] London: The International Stock Exchange of the United Kingdom and the Republic of Ireland.

INTERNATIONAL STOCK EXCHANGE. 1989a. *Admission of Securities to Listing* [The Yellow Book]. London: London Stock Exchange. The International Stock Exchange of the United Kingdom and the Republic of Ireland.

INTERNATIONAL STOCK EXCHANGE. 1989b. *Working with industry 1988. The International Stock Exchange Conference for Industry. 27 October 1988. Conference Report*. London: The International Stock Exchange.

INTERNATIONAL STOCK EXCHANGE, LISTED COMPANIES ADVISORY COMMITTEE. 1988. *Investor Relations. A Guide for Directors*. London: The International Stock Exchange of the United Kingdom and Republic of Ireland Limited.

INVESTOR RELATIONS. ISSN 0958 6679. 1988. London: Economist Publications Ltd. [subsequently] Cross Border Publishing.

INVESTOR RELATIONS SOCIETY [not dated, leaflet issued 1989] *Investor Relations Society*. London.

KEANE, S.M. 1983. *Stock market efficiency, theory, evidence, implications*. Oxford: Phillip Allan.

KINLOCH, A. (ed). 1991. *Crawford's Directory of City Connections. Thirteenth Edition 1991*. London: The Economist Directories, The Economist Publications Limited.

KINLOCH, A. (ed). 1992. *Crawford's Directory of City Connections. Fourteenth Edition 1992*. London: The Economist Directories, The Economist Publications Limited.

KOPEL, E. 1982. *Financial and corporate public relations: The integrated approach*. London: McGraw Hill.

LAKE, D. & GRAHAM, J. 1990. *Investor Relations*. London: Euromoney Publications and Dewe Rogerson.

LEE, T.A. & TWEEDIE, D.P. 1981. *The institutional investor and financial information*. London: The Institute of Chartered Accountants.

LEVINE, S.N. (ed). 1988. *The Financial Analysts' Handbook (2nd edition)*. Homewood, Illinois: Dow Jones Irwin.

LISTED COMPANIES ADVISORY COMMITTEE, THE INTERNATIONAL STOCK EXCHANGE 1988. *Investor Relations. A Guide for Directors*. London: The International Stock Exchange of the United Kingdom and Republic of Ireland Limited.

LITTLEJOHN, G. (ed). 1990. Opinion, *Professional investor*, February, Vol. 1, no. 4, p. 11.

LOMAX, D.F. 1987. *London markets after the Financial Services Act*. London: Butterworths.

LONDON BUSINESS SCHOOL. 1991. *Risk Measurement Service*, Vol. 13, no. 3, July. Institute of Finance and Accounting, London Business School.

[LONDON STOCK EXCHANGE see also INTERNATIONAL STOCK EXCHANGE]

LONDON STOCK EXCHANGE, REGULATORY NEWS SERVICE (RNS). 1991. *Procedural Guidelines* [booklet]. London: London Stock Exchange, The International Stock Exchange of the United Kingdom and the Republic of Ireland.

LONDON STOCK EXCHANGE, WORKING PARTY ON PRICE SENSITIVE INFORMATION. 1993. *Consultative document on the dissemination of price sensitive information*. London: London Stock Exchange, The International Stock Exchange of the United Kingdom and the Republic of Ireland.

LUTHER, R. 1990. Could loyalty be swayed by having a good lunch. *Accountancy Age*, February, p. 3.

McLAUGHLIN, N. 1988. An alliance based on understanding. *Accountancy*. April, Vol. 101, no. 1136, pp. 82-84.

MAGINN, J.L. & TUTTLE, D.L. 1983. *Managing investment portfolios: A dynamic process (sponsored by Institute of Chartered Financial Analysts)*. Boston: Warren, Gorham and Lamont.

MAITLAND, A. 1989 *Improving investor relations a business guide*. London: Confederation of British Industry (CBI) in association with Carter Valin Pollen Ltd.

MAKINSON, J. 1989. Preface. In Ryder, N. & Regester, M. *Investor Relations*. London: Hutchinson Business Books.

MANN, T. 1987. *A guide to library research methods*. New York: Oxford University Press Inc.

MARCUS, B.W. 1983. *Competing for capital in the 80's*. Westport, Connecticut: Quorum Books.

MARSH, P. 1990. *Short-termism on trial*. London: Institutional Fund Managers Association.

MARSTON, C.L. & SHRIVES, P.J. 1991. The Use of Disclosure Indices in Accounting Research: A Review Article. *British Accounting Review*, Vol. 23, no. 3, pp. 195-210.

MATATKO, J. & STAFFORD, D.C. 1988. *Stock Exchange Press Directory of Unit Trust Management*. (3rd edition). London: London and International Publishers.

MAUTZ, R.K. & MAY, W.G. 1978. *Financial disclosure in a competitive economy*. New York, USA: Financial Executives Research Foundation.

MINITAB INC. 1989. *Minitab Reference Manual Release 7*. PA, USA: Minitab Inc.

MOIR, C. 1989. The inequality of information. *Observer*, October, p. 27.

MOIZER, P. 1982. *An empirical study of the share appraisal techniques used by investment analysts*. Manchester: MA Econ.

MOIZER, P. & ARNOLD, J. 1984. Share appraised by investment analysts - A comparison of the techniques used by portfolio and non-portfolio managers. *Accounting and Business Research*, Autumn 1984, pp. 341-348.

NATIONAL ASSOCIATION OF PENSION FUNDS LTD. 1990. *Creative Tension?* London: The National Association of Pension Funds Ltd.

NEWCASTLE UPON TYNE POLYTECHNIC COMPUTER UNIT. 1986. *Data Collection Using Minitab*. Newcastle: Newcastle upon Tyne Polytechnic Computer Unit.

NEWMAN, K. 1984. *Financial marketing and communications*. Eastbourne: Holt Rinehart and Winston (for) the Advertising Association.

NOBES, C. & PARKER, R. 1988. *Issues in multinational accounting*. Oxford: Phillip Allan Publishers Ltd.

NORUSIS, M.J. /SPSS INC 1990. *SPSS Base System Users' Guide*. Chicago, Illinois: SPSS Inc.

O'BRIEN, B. 1992. The Approach, Announcements and Independent Advice. In Westminster Management Consultants Ltd. *A Practitioner's Guide to the City Code on Takeovers and Mergers*. (4th edition). Woking, Surrey: Westminster Management Consultants Ltd. pp. 27-44.

O'BRIEN, P. & BHUSHAN, R. 1990. Analyst following and institutional ownership. *Journal of Accounting Research*, 1990, Vol. 28 (supplement), pp. 55-76.

- O'BRYAN, P.W. 1980. *A normative model for proactive investor relations management in the UK*. MBA Dissertation, Manchester Business School.
- OPPENHEIM, A.N. 1966. *Questionnaire design and attitude measurement*. London: Heinemann.
- PANEL ON TAKEOVERS AND MERGERS. *City Code on Takeovers and Mergers*. (First edition in loose leaf format 19.4.84., third edition 25.10.90.) London: Panel on Takeovers and Mergers.
- PHILLIPS, H.E. & RITCHIE, J.C. 1983. *Investment analysis and portfolio selection*. (2nd edition). Cincinnati (USA): South Western.
- PORTER, M.E. 1988. How to conduct an industry analysis. In Levine, S.N. (ed).. *The Financial Analysts' Handbook*. (2nd edition). Homewood, Illinois (USA): Dow Jones Irwin. pp. 375-388.
- PREIS, A. & BERBERS, V. 1990. Communicating with institutional investors. *Accountancy*, May, Vol. 105, no. 1161, pp. 102-104.
- PROFESSIONAL INVESTOR. 1990. *Opinion*. February, Vol. 1, no. 4, p. 11.
- PRODHAN, B. 1986. *Multinational accounting: Segment disclosure and risk*. Beckenham, Kent: Croom Helm.
- PURNELL, S. (ed). 1987. *Crawford's Investment Research Index 1987-88*. London: Crawford Publications, The Economist Publications Limited.
- QUALITY OF MARKETS QUARTERLY REVIEW. Summer Edition. April-June 1990. The International Stock Exchange. London.
- QUALITY OF MARKETS QUARTERLY REVIEW. Autumn Edition. July-September 1990. The International Stock Exchange. London.
- QUALITY OF MARKETS QUARTERLY REVIEW. Winter Edition. October-December 1990. The International Stock Exchange. London.
- QUALITY OF MARKETS QUARTERLY REVIEW. Spring Edition. January-March 1991. The International Stock Exchange. London.
- REGULATORY NEWS SERVICE (RNS) 1991. *Procedural Guidelines* [booklet]. London: London Stock Exchange, The International Stock Exchange of the United Kingdom and the Republic of Ireland.

- RIDER, B.A.K. 1983. *Insider trading*. Bristol: Jordan and Sons Limited.
- ROBERTS, C.B. & GRAY, S.J. 1988a. Information disclosure by multinationals: an empirical study of the British response to the UN and OECD recommendations. In *Proceedings of the Sixth International Conference on Accounting Education*. London: Greenwood Press. pp. 727-739.
- ROBERTS, C.B. & GRAY, S.J. 1988b. Segmental Reporting. In Nobes, C. & Parker, R. (eds), *Issues in multinational accounting*. Oxford: Phillip Allan Publishers Ltd. pp. 103-121.
- RODGERS, P. 1993. Drawing new lines. *The Independent*, 21 May, p. 31.
- RONEN, J. & SADAN, S. 1981. *Smoothing income numbers: Objectives, means and implications*. Reading, Massachusetts: Addison Wesley.
- RUDD, A.S. 1988. Site visits. In Levine, S.N. (ed). *The Financial Analysts' Handbook*. (2nd edition). Homewood, Illinois: Dow Jones Irwin. pp. 452-455.
- RYDER, N. & REGESTER, M. 1989. *Investor relations*. London: Hutchinson Business Books.
- RYAN, B.F., JOINER, B. L. & RYAN, T.A. 1985 *Minitab Handbook*. (2nd edition, revised printing). Boston: PWS Kent.
- SCHROEDER, D., KROSS, W. & RO, D. 1990. Earnings expectations: The analyst's information advantage. *The Accounting Review*, April, Vol. 65, no. 2, pp. 465-476.
- SECURITIES AND FUTURES AUTHORITY (SFA) 1992. *Rule Book*. (2nd edition). London: The Securities and Futures Authority.
- SECURITIES AND INVESTMENTS BOARD (SIB) 1986. *Financial services: A guide to the new regulatory system*. London: The Securities and Investments Board Limited.
- SECURITIES AND INVESTMENTS BOARD (SIB) 1987. *Rules and Regulations*. London: The Securities and Investments Board Limited.

SECURITIES AND INVESTMENTS BOARD (SIB) 1990. *Rules and Regulations*. London: The Securities and Investments Board Limited.

SECURITIES ASSOCIATION (TSA) 1987. *Rule Book*. London: The Securities Association.

SIEGEL, S. & CASTELLAN, N.J. 1988. *Nonparametric Statistics for the Behavioural Sciences*. (2nd edition). Singapore: McGraw-Hill.

SILVERMAN, D. 1985. *Qualitative methodology and sociology*. Aldershot: Gower.

SINGHVI, S.S. & DESAI, H.B. 1971. An empirical analysis of the quality of corporate financial disclosure. *The Accounting Review*, January, pp. 129-138.

SMITH, T. 1992. A law that may diminish the stature of the City. *Accountancy Age*, 22 October, p. 12.

SMITH, T. 1993. Dealing even-handedly with insider trading law. *Accountancy Age*, 22 April, p. 14.

[SOCIETY OF INVESTMENT ANALYSTS see also INSTITUTE OF INVESTMENT MANAGEMENT AND RESEARCH]

SOCIETY OF INVESTMENT ANALYSTS (THE). 1981. *Guidelines to Insider Dealing*. Bromley, Kent: The Society of Investment Analysts.

SOCIETY OF INVESTMENT ANALYSTS (THE). 1986. *Guidelines to Insider Dealing referred to in Company Securities (Insider Dealing) Act 1985*. Bromley, Kent: The Society of Investment Analysts.

SOCIETY OF INVESTMENT ANALYSTS (THE). [not dated, leaflet issued 1988] *Investment Analysis as a Career*. Bromley, Kent: The Society of Investment Analysts.

SOCIETY OF INVESTMENT ANALYSTS (THE). 1988. *Report and accounts for the year ended 31st July 1988*.

SOCIETY OF INVESTMENT ANALYSTS (THE). 1989a. *Report and accounts for the year ended 31st July 1989*.

SOCIETY OF INVESTMENT ANALYSTS (THE). 1989b. *Insider Dealing & the Investment Analyst* [seminar 18/4/89] Insider Dealing [speech by Tracey, C.].

STOCK EXCHANGE PRESS DIRECTORY OF UNIT TRUST MANAGEMENT. 1988. (3rd edition). Written and edited by Matatko, J. & Stafford, D.C. London: London and International Publishers.

STOCK EXCHANGE QUARTERLY WITH QUALITY OF MARKETS REVIEW. Autumn Edition. July - September 1991. London Stock Exchange. The International Stock Exchange of the United Kingdom and the Republic of Ireland Limited.

SUTER, J.A.C. 1989. *The regulation of insider dealing in Britain*. London: Butterworths and Co Publishers Ltd.

TAYLOR NELSON RESEARCH LTD. 1989. *Attitudes to the investor relations industry*. Epsom: Taylor Nelson Research Ltd.

THOMAS, A.P. 1986. The Contingency Theory of Corporate Reporting: Some Empirical Evidence. *Accounting Organisations and Society*, Vol. 11, no. 3, pp. 253-270.

VERCHERE, I. 1991. *The Investor Relations Challenge. Reaching out to Global markets. The Economist Intelligence Unit Report No. 2188*. London: The Economist Intelligence Unit. The Economist Group. Business International Ltd.

WALKER, M. 1985. Forecast disclosure: An information economics perspective. *Journal of Business, Finance and Accounting*, Autumn, Vol. 12, no. 3, pp. 355-371.

WALMSLEY, T., YADAV, P.K. & REES, W.P. 1992. The information content of the company meeting programme of the Society of Investment Analysts: 1985-1990. *Journal of Business, Finance and Accounting*, Vol. 19, no. 4, June, pp. 571-584.

WESTMINSTER MANAGEMENT CONSULTANTS LTD 1992. *A Practitioner's Guide to the City Code on Takeovers and Mergers*. (4th edition). Woking, Surrey: Westminster Management Consultants Ltd.

WESTWICK, C.A. (ed). 1983. *Profit Forecasts: How they are made, reviewed and used*. Aldershot: Gower.



**COMPANY COMMUNICATIONS WITH
ANALYSTS AND FUND MANAGERS.**

**A STUDY OF THE INVESTOR
RELATIONS ACTIVITIES OF LARGE UK
QUOTED COMPANIES.**

CLAIRE LESLEY MARSTON

**Company Communications with
Analysts and Fund Managers.
A Study of the Investor Relations
Activities of Large UK Quoted
Companies.**

Volume 2 of 2

Claire Lesley Marston

Ph.D. Thesis

University of Glasgow

Department of Accounting and Finance

December 1993

Thesis
9834
copy 1
Vol 2



Contents (volume 2)

	Page
Appendices	
A Text of postal questionnaire and accompanying letters	3
B Tables of results on the organisation of the investor relations function	41
C Tables of results on the assessment of and execution of the investor relations function	82
D Tables of results on company meetings with analysts and fund managers	125
E Tables of results on telephone conversations, company feedback on analysts' reports and mailing information	181
F Tables of results on close seasons and opinions on company relationship with analysts and fund managers	224
Glossary	260

Appendix A Text of postal questionnaire and accompanying letters

- A-1 Text of questionnaire
- A-2 Letter to accompany first mailing
- A-3 Letter to accompany second mailing to members of Investor Relations Society
- A-4 Letter to accompany second mailing to non-members of Investor Relations Society
- A-5 Letter to accompany third mailing

A-1 Text of questionnaire

NEWCASTLE POLYTECHNIC

NEWCASTLE BUSINESS SCHOOL

AND

UNIVERSITY OF GLASGOW

GLASGOW BUSINESS SCHOOL

**DEPARTMENT OF ACCOUNTING AND
FINANCE**

INVESTOR RELATIONS PROJECT

QUESTIONNAIRE SURVEY

THIS PROJECT HAS THE SUPPORT OF THE INVESTOR RELATIONS SOCIETY

CONFIDENTIAL**INVESTOR RELATIONS****QUESTIONNAIRE SURVEY****PURPOSE OF THE STUDY**

This study aims to discover how companies conduct their programmes of communication with brokers' analysts and institutional investors. It also aims to find out the views of company management about the value of investor relations. The results will contribute to a better understanding of the factors influencing companies in their response to approaches from analysts.

GENERAL INSTRUCTIONS FOR COMPLETION

1. The survey is addressed to large companies with a quotation on the London Stock Exchange.
2. The questionnaire should be answered by the Finance Director or an appropriate senior executive concerned with the investor relations programme.
3. The questions have been designed so as to minimise the time required for completion. For this reason, most questions require the respondent simply to tick the appropriate box which represents his/her opinion on the company's practice. However, some questions do seek to elicit factual information which may not be readily available. In respect of these questions respondents have the option of providing the information or of stating that it is not available.
4. All of the information provided about the company will be kept **strictly confidential**. The results of the study will be presented in aggregate form only. The anonymity of replies from individual respondents and their companies will be carefully protected.
5. Thank you for your co-operation and support for this research study. A summary of the results of the survey will be sent to all participants in due course.

If you have any queries about the study please do not hesitate to contact:

Miss C L Marston, BSc MAcc FCA ATII.
Senior Lecturer in Accountancy
Newcastle Business School
Newcastle Polytechnic
Ellison Building
Ellison Place
Newcastle upon Tyne
NE1 1BR

Tel: Day Time (091) 235 8951 (Direct line) or (091) 232 6002 Ext. 4951: Evenings: (091) 384 4933

DEFINITION OF TERMS

Analysts - persons involved in evaluating investments, irrespective of their employing organisation. They are sometimes known as financial analysts or investment analysts.

Sell-side/brokers' analysts - persons working for firms of stockbrokers, often in research departments.

Buy-side analysts - persons working for institutional investors such as pension funds, insurance companies, merchant banks, investment and unit trusts etc. They are sometimes known as investment analysts.

Fund managers - persons working for institutional investors who may have analysts reporting to them or they may carry out their own analysis.

Investor relations - the link between a company and the financial community. Provides information to help the financial community and investing public evaluate a company.

INVESTOR RELATIONS SURVEY

SECTION 1: ORGANISATION OF THE INVESTOR RELATIONS FUNCTION

Question 1.1

Please state the number of directors (including the chairman) in your company by completing the boxes.

Executive directors

Non-executive directors

If you have not answered the above, please tick the box.

Information not available

☐

Question 1.2

Please indicate the position of your company chairman.

Tick box

Chairman is a non-executive director

☐

Chairman is the Chief Executive

☐

Chairman is the Managing Director

☐

Other - please specify

☐

.....

Question 1.3

Please specify how many of the directors are involved to some extent in managing and/or executing the investor relations function.

.....

If you have not answered the above please tick the box.

Information not available

☐

Question 1.4

To what extent are the members of your company's
 directorate involved in managing and/or executing the investor
 relations function.

(Please tick one box in respect of each director)

	0 Not applicable (no such director)	1 Not at all	2 Minor extent	3 Moderate extent	4 Large extent
i) Chairman - Non-executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Chief Executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Finance Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Marketing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other directors (please specify)					
vi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
viii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ix).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 1.5

Can you provide an estimate of the number of working days in a year that the directors devote to investor relations?

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐**Question 1.6**

Does your company have a designated investor relations/financial public relations officer?

Tick box

Yes (with investor relations as the main responsibility)

☐

Yes (with investor relations as part of responsibilities)

☐

No

☐**Question 1.7**

a) Please state the job title if the answer to the above question was 'Yes'

.....

b) To whom the does the designated investor relations officer report?

.....

Question 1.8

Please indicate the position of the investor relations function within your organisation.

Tick boxes

i) It is carried out by a separate department

☐

ii) It is carried out by a section of the public relations department

☐

iii) It is carried out by the company secretary's department

☐

iv) It is carried out by the finance director's department

☐

v) It is carried out by company executives, with no central unit or department

☐

vi) There is no investor relations function

☐

Other (please specify)

vii).....

☐

.....

Question 1.9

Please indicate the number of staff working for the investor relations/financial public relations officer (including clerical and secretarial assistants)

.....

If you have not answered the above please tick the relevant box.

Information not available

☐

Not applicable

☐
Question 1.10

Are these staff dedicated to investor relations/financial public relations work or do they perform other duties?

Tick box

Yes - work is mainly investor relations

☐

No - work involves other duties

☐

Not applicable

☐

Question 1.11

Please can you provide an estimate of the annual gross salary bill for the investor relations officer and his/her staff.

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐**Question 1.12**

Please can you give an approximate indication of the annual budget allocation for the investor relations function (excluding the salary bill).

.....

If you have not answered the above please tick the relevant box.

Information not available

☐

Not applicable

☐**Question 1.13**

Does your company currently employ the services of an external investor relations or financial public relations consultant?

Tick box

Yes

☐

No

☐**Question 1.14**

Can you provide an approximate indication of the cost incurred by your company in the past twelve months in retaining the services of an external investor relations or financial public relations consultant?

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐

Question 1.15

If you were able to answer the above question please can you provide an estimate of the percentage of the consultant's charges that relate to communications with analysts (both sell-side and buy-side) and fund managers as opposed to communications with other groups.

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐**Question 1.16**

Does your company have a formal policy or written description stating the objectives and responsibilities of the investor relations function?

Tick box

Yes

☐

No

☐

Not applicable

☐

Note: If your company does have such a document (whether general or detailed) could you please attach a copy to the completed questionnaire.

SECTION 2: ASSESSING THE CONTRIBUTION OF THE INVESTOR RELATIONS FUNCTION**Question 2.1**

Has your company commissioned any market research surveys of City opinion about your company?

Tick box

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

If you have answered 'no' please omit this section and proceed to section 3.

Question 2.2

Please specify the number of surveys that have been commissioned by completing the boxes.

In the past 12 months

More than 12 months ago but
less than five years ago

If you have not answered the above please tick the box

Information not available

☐**Question 2.3**

Please indicate whether these surveys were carried out in-house or by external organisations.
(Please tick the relevant box)

In-house

☐

External

☐

Both

☐

Information not available

☐

Question 2.4

Please indicate the relative importance of the following factors in your company's decision to commission the most recent survey.
(Please tick one box for each item)

	1	2	3	4
	Not at all	Minor importance	Moderate importance	High importance
i) General interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) To assess success of investor relations programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) To assess need for setting up an investor relations function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) To assess need for expanding investor relations function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				
v).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....				
vi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....				

SECTION 3: EXECUTION OF THE INVESTOR RELATIONS PROGRAMME**Question 3.1**

Please can you indicate the means by which your company communicates with analysts (sell-side and buy-side) and fund managers and the importance of the different means of communication.
(Please tick one box for each item)

	1	2	3	4
	Not at all - not done	Minor importance	Moderate importance	High importance
i) By holding meetings which are attended by a number of delegates from different organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) By holding meetings with individuals or small groups from the same organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) By answering telephone queries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) By providing feedback on analysts' reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) By mailing information to analysts and fund managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				
vi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....				
vii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....				

SECTION 4: COMPANY MEETINGS WITH ANALYSTS AND FUND MANAGERS

Question 4.1

Does your company hold meetings with any of the following ?
Sell-side analysts, buy-side analysts and fund managers.

Tick box

Yes ☐

No ☐

If your company does not hold any such meetings please omit this section and proceed to section 5.

Question 4.2

Which company officials represent the company at some or all of these meetings ?
(Please tick one box for each named official.)
(Where officials perform a dual role please link with a bracket.)

	Yes	No	Not applicable (no such official)
i) Chairman - Non-executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Chief Executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Finance Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Marketing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Company Secretary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Chief Accountant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
viii) Investor Relations Officer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ix) Head of Public Relations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x) External Financial Public Relations Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)			
xi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xiii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 4.3

Does the company keep a record of the proceedings of these meetings?
(General meetings are defined here as meetings for a group of delegates from a number of different employing organisations. Special meetings are defined as meetings for individuals or small groups from one organisation.)
(Please tick one box for each type of meeting)

	Yes	No	Not applicable
General (or group) meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special (or individual) meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 4.4

How many of these meetings did your company hold in the past twelve months?
(Please complete the box with a number or with a '?' if the information is not available)

General meetings	<input type="text"/>
Special meetings	<input type="text"/>

Question 4.5

Please can you state the date of the most recent meetings held by your company.
(Please complete the boxes with a date or with a '?' if the information is not available.)

	Day	Month	Year
General meeting	<input type="text"/>	<input type="text"/>	<input type="text"/>
Special meeting	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question 4.6

Approximately how many analysts are there on your company's circulation list of people who may be invited to these meetings? (Please complete the boxes with a number or with a '?' if the information is not available)

Sell-side analysts

Buy-side analysts & fund managers

Question 4.7

Can you provide an estimate of the number of individual analysts who have attended at least one of your meetings (special or general) in the past 12 months?

(Please complete the boxes with a number or with a '?' if the information is not available)

Sell-side analysts

Buy-side analysts & fund managers

Question 4.8

Can you provide an estimate of the number of stockbroking firms which sent representatives to your meetings (special or general) in the past 12 months?

(Please complete the box with a number or with a '?' if the information is not available)

Question 4.9

Can you provide an estimate of the number of institutional investor organisations which sent representatives to your meetings (special or general) in the past 12 months?

(Please complete the box with a number or with a '?' if the information is not available)

Question 4.10

Please indicate the types of information that your company provides to delegates (sell-side analysts and/or buy-side analysts and/or fund managers) at these meetings (special or general).
In respect of those types of information that are provided please can you indicate their relative importance
(Please tick one box in respect of each item listed)

	0	1	2	3	4
	Not applicable	Not at all	Minor importance	Moderate importance	High importance
Past performance					
i) Explanation of recent results in the context of the general economic environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Explanation of accounting policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Additional breakdown of published figures by line of business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Additional breakdown of published figures by geographical area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Performance of recent acquisitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Outcome of completed research and development projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Explanation of structure of balance sheet and gearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)					
viii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					
ix).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					
x)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					

Question 4.10 (cont)

	0	1	2	3	4
	Not applicable	Not at all	Minor importance	Moderate importance	High importance
Future prospects (Subject, if necessary, to prior announcement to the London Stock Exchange.)					
xi) First announcement of major new projects and developments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xii) Further explanation of major new projects and developments that have already been announced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xiii) First announcement of new products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xiv) Further explanation of new products that have already been announced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xv) First announcement of new contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xvi) Further explanation of new contracts that have already been announced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xvii) Current state of order book	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xviii) Prospects of current research and development projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xix) First announcement of new research and development projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xx) Further explanation of new research and development projects that have already been announced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 4.10 (cont)

	0	1	2	3	4
	Not applicable	Not at all	Minor importance	Moderate importance	High importance
xxi) First announcement of profits forecast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxii) Further explanation of profits forecast that has already been made	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxiii) Company strategy in the short term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxiv) Company strategy in the long term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxv) Company strategy for particular segments of the business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxvi) Company strategy on future acquisitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxvii) Company strategy on future disposals of segments of the business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxviii) Long term investment plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxix) Cash flow situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xxx) Dividend policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)					
xxxi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					
xxxii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					

SECTION 5: TELEPHONE CONVERSATIONS WITH ANALYSTS AND FUND MANAGERS

Question 5.1

Does your company engage in telephone conversations with analysts ?

	Yes	No
Sell-side analysts	<input type="checkbox"/>	<input type="checkbox"/>
Buy-side analysts and fund managers	<input type="checkbox"/>	<input type="checkbox"/>

If your company does not speak to analysts on the telephone please omit this section and proceed to section 6.

Question 5.2

Please indicate the company personnel who answer telephone enquiries from analysts (sell-side and/or buy-side) and/or fund managers.

(Please tick one box in respect of each official listed.)
(Where officials perform a dual role please link with a bracket.)

	Yes	No	Not applicable (no such official)
i) Chairman - Non-executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Chief Executive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Finance Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Marketing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Company Secretary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Chief Accountant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
viii) Investor Relations Officer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ix) Head of Public Relations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x) External Financial Public Relations Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)			
xi).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
xiii).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 5.3

Does the company keep a record of the content of these telephone conversations?
(Please tick boxes)

- A tape recording is made ☐
- A written record is made ☐
- No record is made ☐

SECTION 6: COMPANY FEEDBACK ON SELL-SIDE ANALYSTS' REPORTS

Question 6.1

Can you state the approximate number of reports on your company that have been produced by sell-side/brokers' analysts in the past twelve months?

(Please complete the box with a number or with a '?' if the information is not available)

Question 6.2

Can you state the approximate number of reports that have been passed to your company for comment prior to issue in the past twelve months?

(Please complete the box with a number or with a '?' if the information is not available)

Question 6.3

What action does your company take when it receives a draft analyst's report for comment or when an analyst telephones to discuss his/her draft report?

(Please tick boxes)

i) Analysts' reports are never received

☐

ii) Feedback is never provided

☐

iii) Factual errors relating to published information are corrected

☐

iv) Comments are offered on the accuracy of analysts' predictions

☐

Other (please specify)

v).....

☐

.....

vi).....

☐

.....

Question 6.4

Please can you specify your company's policy when asked to comment on analysts' profit forecasts.
(Please tick one box)

- i) Company is never asked for comments ☐
- ii) Comments are never made ☐
- iii) Comments are made ☐

Question 6.5

If your company does make comments on analysts' forecasts please can you indicate your procedure.
(Please tick boxes)

- i) If a forecast is reasonable no comment is made ☐
- ii) If a forecast is reasonable the company confirms this ☐
- iii) If a forecast is not reasonable no comment is made ☐
- iv) If a forecast is not reasonable the company informs the analyst ☐
- v) An analyst will be given some guidance regarding the size and direction of the error in his forecast ☐
- Other (please specify) ☐
- vi)..... ☐
-
- vii) Not applicable ☐

SECTION 7: MAILING INFORMATION TO ANALYSTS AND FUND MANAGERS**Question 7.1**

Does your company mail information to analysts?

	Yes	No
Sell-side analysts	<input type="checkbox"/>	<input type="checkbox"/>
Buy-side analysts and fund managers	<input type="checkbox"/>	<input type="checkbox"/>

If your company does not mail information to analysts please omit this section and proceed to section 8.

Question 7.2

Approximately how many organisations employing analysts receive information from your company by mail?

(Please complete boxes with a number or with a '?' if the information is not available)

Stockbrokers

Institutional investors

Other

Question 7.3

What type of information is sent to analysts and/or fund managers?
(Please tick boxes)

i) Annual report

☐

ii) Interim report

☐

iii) Quarterly reports

☐

iv) Copies of announcements sent to
the company news service of the
London Stock Exchange

☐

v) Takeover documents

☐

Question 7.3 (cont.)

Question 7.3 (cont)

vi) Company information brochures
and other promotional literature

☐

vii) General press releases

☐

viii) Documents designed specifically
for analysts

☐

Other, please specify

ix).....

☐

.....

x) Information not available

☐

SECTION 8: GENERAL INFORMATION

Question 8.1

Does your company prohibit or restrict communication with sell-side analysts, buy-side analysts and/or fund managers at certain times of the year?

(Please tick relevant boxes)

Yes - a prohibition operates at certain times	<input type="checkbox"/>
Yes - a restriction operates at certain times	<input type="checkbox"/>
No	<input type="checkbox"/>

If you have answered 'no' please omit this section and proceed to section 9.

Question 8.2

If you have answered 'yes' to the above question please specify the times during the year when communication is prohibited or restricted. (Please tick boxes)

	Yes	No	Not applicable
i) Prior to the annual results announcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Prior to the interim results announcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Prior to the quarterly results announcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)			
iv).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....			
v).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....			

Question 8.3

Please specify the number of days for which communication is prohibited or restricted prior to the annual results announcement.

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐

Question 8.4

Please specify the number of days for which communication is prohibited or restricted prior to the interim results announcement.

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐

Question 8.5

Please specify the number of days for which communication is prohibited or restricted prior to the quarterly results announcement.

.....

If you have not answered the above please tick the relevant box

Information not available

☐

Not applicable

☐

Question 8.6

If your company operates a policy of restriction of communication rather than complete prohibition please describe the nature of the restriction.

.....

If you have not answered the above please tick the relevant box

- Information not available ☐
- Not applicable ☐

SECTION 9: OPINIONS ON YOUR COMPANY’S RELATIONSHIP WITH ANALYSTS.

Some companies have expressed dissatisfaction regarding the quality of sell-side/brokers’ analysts’ reports. Others have expressed concern regarding the amount of time and energy devoted to responding to sell-side analysts’ requests for information and meetings. This section seeks to elicit your opinions on your company’s relationship with both sell-side and buy-side analysts.

Question 9.1

How would you rate the general quality of analysts’ reports, from all sources, that are made on your company?
(Please tick one box)

1	2	3	4	5
Very poor	Poor	Acceptable	Good	Very good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have not answered the above please tick the relevant box

No opinion

☐

Not applicable

☐

Question 9.2

How would you compare the quality of analysis carried out by sell-side/brokers’ analysts with buy-side analysts working for institutional investors?
(Please tick one box for each type of analyst)

	1	2	3	4	5
	Very poor	Poor	Acceptable	Good	Very good
Sell-side analysts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buy-side analysts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have not answered the above please tick the relevant box

No opinion

☐

Not applicable

☐

Question 9.3

Please indicate the extent of your agreement with the following statements as they apply to your company and its relationship with sell-side/brokers' analysts.

(Please tick one box in respect of each item listed)

	1	2	3	4	5
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
i) Company meetings with sell-side analysts are a valuable means of communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Company telephone conversations with sell-side analysts are a valuable means of communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) My company would prefer not to hold sell-side analysts' meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) My company would prefer not to talk to sell-side analysts on the telephone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) My company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Sell-side analysts pressurise my company for information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Sell-side analysts are too concerned with short term profit opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
viii) Sell-side analysts are not sufficiently interested in the long term prospects of my company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 9.4

Please indicate the extent of your agreement with the following statements as they apply to your company and its relationship with buy-side analysts and fund managers working for institutional investors.

(Please tick one box in respect of each item listed)

	1	2	3	4	5
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
i) Company meetings with buy-side analysts and fund managers are a valuable means of communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Company telephone conversations with buy-side analysts and fund managers are a valuable means of communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) My company would prefer not to hold meetings with buy-side analysts & fund managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) My company would prefer not to talk to buy-side analysts and fund managers on the telephone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) My company should not provide buy-side analysts and fund managers with guidance as to future profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Buy-side analysts and fund managers pressurise my company for information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Buy-side analysts and fund managers are too concerned with short term profit opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
viii) Buy-side analysts & fund managers are not sufficiently interested in the long term prospects of my company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 10: RESPONDENT DETAILS

Thank you for completing this questionnaire. It would be most helpful if you could provide the following information. Please note that your reply to this questionnaire will be kept strictly CONFIDENTIAL. The results of the study will be reported in aggregate form only.

Your name.....

Your job title.....

Your telephone number.....

Company name.....

If there are any aspects of the investor relations issue that you consider important and which are not covered here then please give your comments in the space provided below.

THANK YOU VERY MUCH FOR YOUR COOPERATION - IT IS MUCH APPRECIATED.

PLEASE RETURN THE QUESTIONNAIRE IN THE REPLY PAID ENVELOPE PROVIDED TO:

Miss C L Marston
Newcastle Business School
Newcastle Polytechnic
Ellison Building
Ellison Place
Newcastle upon Tyne
NE1 1BR

Comments:

FOR OFFICE USE ONLY
DATE REPLY RECEIVED

__ / __ / __

A-2 Letter to accompany first mailing

1 August 1991

Dear

Investor Relations Survey

I am writing to you to request your kind co-operation in a survey of company investor relations. This work is being carried out by Glasgow University Business School in conjunction with Newcastle Business School, with Miss C.L.Marston as the principal researcher for the project.

In recent years there has been an increased awareness of the importance of communication between industry and the City. This has led to a growth in the activity known as investor relations.

This survey focuses on the part of the investor relations programme which services the needs of financial analysts. The overall aim is to establish how companies organise their communications with analysts. It is hoped that the survey will establish the current "state of the art" in this respect among Britain's top companies.

All replies to the survey will be treated in strictest confidence. Results will be presented in aggregate form only. Participating companies will receive a short report highlighting the main findings of the survey.

I would be most grateful if you could spare half an hour of your time to complete the enclosed questionnaire.

Yours sincerely

Professor Sidney J Gray

A-3 Letter to accompany second mailing to members of Investor Relations Society

September 1991

Dear

INVESTOR RELATIONS SURVEY

During the first week of August you possibly received a postal questionnaire on the subject of investor relations from Claire Marston of Newcastle Business School. You may be interested to know that the Investor Relations Society is supporting this piece of market research, on the basis that the information gleaned will be most helpful when compiling our programme of future events. With this particular slant in mind, I hope you will not mind my writing to seek your co-operation as an IRS member, as we do not yet appear to have received a reply from your Company.

We realise that there are many demands on your time, but please note that if you do respond, you will receive a report on the main findings. This report will summarise how Britain's top companies conduct their relationships with analysts. It will also contain opinions from companies about sell-side and buy-side analysts. Obviously the more replies received, the more valid and reliable the report will be.

On behalf of Claire Marston, I enclose another copy of the questionnaire and a reply paid envelope for your convenience. If you or another Company Executive have already replied, please accept my apologies for troubling you.

Yours sincerely,

Warren Stokes
Chairman, IRS Research Committee

A-4 Letter to accompany second mailing to non-members of Investor Relations Society

October 1991

Dear

INVESTOR RELATIONS SURVEY

During the first week of August you received a postal questionnaire on the subject of investor relations. Since I have not yet received a reply from you I am writing again in the hope of obtaining your cooperation.

I realise that there are many demands on your time but please note that if you do participate in the survey you will receive a report on the main findings. This report will summarise how Britain's top 500 companies conduct their relationships with analysts. It will also report the opinions of companies about brokers' analysts and institutional investor analysts. The more replies I receive the more valid and reliable the report will be.

I enclose another copy of the questionnaire and a reply paid envelope for your convenience. If you have already replied please accept my apologies for troubling you again. If you have passed on the original questionnaire to another company executive I would be grateful if you could also pass this reminder letter on.

Yours sincerely

Miss C L Marston
Senior Lecturer in Accountancy

A-5 Letter to accompany third mailing

1 March 1992

Dear

INVESTOR RELATIONS SURVEY

Last August a survey was carried out to discover how Britain's top 550 companies conduct their investor relations programmes. After a follow up in mid September a very pleasing response rate of 60% was achieved. All participating companies will receive a short report highlighting the main findings of the survey in due course.

I am writing to your company again because I have not received a reply from you. A number of companies have replied anonymously and if this applies in your case please accept my apologies for bothering you again. If, however, you have not yet responded and would still like to take part in the survey please complete the enclosed questionnaire and return it to me in the reply paid envelope provided.

Yours sincerely

Miss Claire L Marston
Senior Lecturer in Accountancy

Appendix B Tables of results on the organisation of the investor relations function

B-1	Number of directors involved in investor relations function
B-2	Percentage of directorate involved in the investor relations function
B-3	Involvement of directors in investor relations
B-4	Number of working days in a year that directors devote to investor relations
B-5	Existence of designated investor relations officer
B-6	Position of investor relations function within organisation
B-7	Number of staff working for investor relations officer where work is mainly investor relations
B-8	Annual budget allocation for the investor relations function (excluding salary bill)
B-9	Cost incurred in past 12 months on external investor relations consultant
B-10	Percentage of consultant's charges relating to communications with analysts and fund managers
B-11	Does the company have a formal policy or written description for the investor relation function?
B-12	Descriptive statistics for data on organisation of investor relations
B-13	Correlation of data on organisation of investor relations
B-14	Pearson Correlation of data on organisation of investor relations with company specific variables
B-15	Spearman rank correlations of data on organisation of investor relations with company specific variables
B-16	Kruskal-Wallis tests of association on %DIRINIR
B-17	Kruskal-Wallis tests of association on INDEX
B-18	Kruskal-Wallis tests of association on DIRDAYS
B-19	Kruskal-Wallis tests of association on BUDGET
B-20	Kruskal-Wallis tests of association on COSTS
B-21	Chi-square tests of association between the existence of a designated investor relations officer (IROFFICER) and the independent categorical variables

- B-22 Chi-square tests of association between the existence of a dedicated investor relations staff (IRSTAFF) and the independent categorical variables
- B-23 Kruskal-Wallis tests of association on the existence of a designated IR officer (IROFFICER) and the company specific independent continuous variables
- B-24 Kruskal-Wallis tests of association on the existence of dedicated IR staff (IRSTAFF) and the company specific independent continuous variables
- B-25 Chi-square tests of association between the existence of a separate IR department (IRDEPT) and the independent categorical variables
- B-26 Chi-square tests of association between the existence of an external IR consultant (IRCONS) and the independent categorical variables
- B-27 Kruskal-Wallis test of association between the existence of a separate investor relations department (IRDEPT) and the company specific continuous variables
- B-28 Kruskal-Wallis test of association between the existence of an external investor relations consultant (IRCONS) and the company specific continuous variables
- B-29 Stepwise regression of director involvement index (INDEX)
- B-30 Multiple regression of director involvement index (INDEX) using variables identified by stepwise regression
- B-31 Stepwise regression of director days (DIRDAYS)
- B-32 Multiple regression of director days (DIRDAYS) using variables identified by stepwise regression
- B-33 Stepwise regression of investor relations budget (BUDGET)
- B-34 Multiple regression of investor relations budget (BUDGET) using variables identified by stepwise regression
- B-35 Stepwise regression of cost of external consultant in £k (COSTS)
- B-36 Multiple regression of cost of external consultant in £k (COSTS) using variables identified by stepwise regression
- B-37 Stepwise regression of director involvement index (INDEX) with critical F value reduced to 2
- B-38 Stepwise regression of director days (DIRDAYS) with critical F value reduced to 2

- B-39 Stepwise regression of investor relations budget (BUDGET) with critical F value reduced to 2
- B-40 Stepwise regression of external consultant costs (COSTS) with critical F value reduced to 2
- B-41 Multiple regression of investor relations budget in £k (BUDGET) using all independent variables

Table B-1 Number of directors involved in investor relations function

	COUNT	PERCENT
1	2	0.60
2	67	19.94
3	145	43.15
4	73	21.73
5	25	7.44
6	11	3.27
7	7	2.08
8	4	1.19
9	1	0.30
12	1	0.30
N=	336	
*=	1	
MEAN 3.4405	MEDIAN 3.0000	

NOTE:
The * indicates a missing value, where the respondent did not answer a particular question)

Table B-2 Percentage of directorate involved in the investor relations function

	COUNT	PERCENT
0-20%	33	10.0
21-30%	95	28.7
31-40%	90	27.2
41-50%	57	17.2
51-60%	25	7.6
61-70%	15	4.5
71-80%	10	3.0
81-100%	6	1.8
N=	331	
* =	6	
MEAN 0.38010	MEDIAN 0.33333	

Table B-3 Involvement of directors in investor relations

Non-Executive Chairman		
	COUNT	PERCENT
Not applicable	199	59.23
Not at all	28	8.33
Minor extent	57	16.96
Moderate extent	34	10.12
Large extent	18	5.36
N=	336	
*=	1	

	Chief Executive		Managing Director	
	COUNT	PERCENT	COUNT	PERCENT
Not applicable	44	13.10	206	61.49
Not at all	2	0.60	5	1.49
Minor extent	12	3.57	29	8.66
Moderate extent	82	24.40	38	11.34
Large extent	196	58.33	57	17.01
N=	336		335	
*=	1		2	

NOTE:
Most respondents (245) had either a Chief Executive or a Managing Director. 88 respondents had both.

Table B-3 (continued) Involvement of Directors in investor relations

	Finance Director		Marketing Director	
	COUNT	PERCENT	COUNT	PERCENT
Not applicable	7	2.09	272	81.68
Not at all	7	2.09	30	9.01
Minor extent	10	2.99	19	5.71
Moderate extent	55	16.42	6	1.80
Large extent	256	76.42	6	1.80
N=	335		333	
*=	2		4	

Table B-4 Number of working days in a year that directors devote to investor relations

	COUNT	PERCENT
0-30	169	66.27
31-60	53	20.78
61-90	15	5.88
91-120	10	3.92
over 120	8	3.14
N=	255	
*=	82	
MEAN 36.54	MEDIAN 30.00	

Table B-5 Existence of designated investor relations officer

		COUNT	PERCENT
No	0	163	48.37
Yes (as part of responsibilities)	1	108	32.05
Yes (as main responsibility)	2	66	19.58
	N=	337	

Table B-6 Position of investor relations function within organisation

	COUNT	PERCENT
Separate department	30	8.90
Section of public relations department	67	19.88
Company secretary's department	21	6.23
Finance director's department	121	35.90
No central unit or department	93	27.60
No investor relations function	25	7.42
Other	28	8.31
Total	385	
N=	337	

Table B-7 Number of staff working for investor relations officer
where work is mainly investor relations

	COUNT	PERCENT
0	1	2.33
1	11	25.58
2	11	25.58
3	10	23.26
4	4	9.30
5	5	11.63
13	1	2.33
N=	43	
*=	1	
MEAN 2.721	MEDIAN 2.000	

Table B-8 Annual budget allocation for the investor relations function (excluding salary bill)

£	COUNT	PERCENT
up to 50,000	63	42.28
50,001-100,000	28	18.79
100,001-150,000	16	10.74
150,001-200,000	8	5.37
200,001-250,000	7	4.70
250,001-300,000	4	2.68
300,001-350,000	2	1.34
350,001-400,000	2	1.34
400,001-450,000	1	0.67
450,001-500,000	2	1.34
500,001 and over	16	10.74
N=	149	
*=	188	
MEAN 180,272	MEDIAN 100,000	

Table B-9 Cost incurred in past 12 months on external investor relations consultant

£	COUNT	PERCENT
up to 10,000	23	10.65
10,001-20,000	46	21.30
20,001-30,000	54	25.00
30,001-40,000	16	7.41
40,001-50,000	23	10.65
50,000-100,000	35	16.20
100,001-200,000	14	6.48
200,001 and over	5	2.31
N=	216	
*=	121	
MEAN 52,146	MEDIAN 30,000	

Table B-10 Percentage of consultant's charges relating to communications with analysts and fund managers

	COUNT	PERCENT
%		
0	23	17.04
1-20	38	28.15
21-40	15	11.11
41-60	33	24.44
61-80	11	8.15
81-100	15	11.11
N=	135	
*=	202	
MEAN 30.00	MEDIAN 35.70	

Table B-11 Does the company have a formal policy or written description for the investor relation function?

		COUNT	PERCENT
No	0	240	71.43
Yes	1	64	19.05
Not applicable	2	32	9.52
	N=	336	
	*=	1	

Table B-12 Descriptive statistics for data on organisation of investor relations

	N	N*	MEAN	MEDIAN
%DIRINIR	320	5	0.37936	0.33333
SQRT(%DIRINIR)	320	5	1.1725	1.1547
INDEX	324	1	8.022	8.000
SQRT(INDEX)	324	1	2.8053	2.8284
DIRDAYS	249	76	37.04	30.00
LOGT(DIRDAYS)	249	76	1.4500	1.4914
BUDGET	146	179	182024	100000
LOGT(BUDGET)	146	179	4.8673	5.0000
COSTS	210	115	52917	30000
LOGT(COSTS)	210	115	4.5117	4.4771

	TRMEAN	STDEV	SEMEAN	TEST
%DIRINIR	0.36825	0.16392	0.00916	0.961
SQRT(%DIRINIR)	1.1686	0.0679	0.0038	0.971
INDEX	7.880	2.291	0.127	0.973
SQRT(INDEX)	2.7919	0.3905	0.0217	0.992
DIRDAYS	32.56	35.61	2.26	0.838
LOGT(DIRDAYS)	1.4502	0.3341	0.0212	0.992
BUDGET	150364	245099	20285	0.828
LOGT(BUDGET)	4.9263	0.8014	0.0663	0.872
COSTS	42346	70375	4856	0.741
LOGT(COSTS)	4.5202	0.4970	0.0343	0.878

	MIN	MAX	Q1	Q3
%DIRINIR	0.07692	1.00000	0.25000	0.45202
SQRT(%DIRINIR)	1.0377	1.4142	1.1180	1.2050
INDEX	4.000	18.000	6.000	9.000
SQRT(INDEX)	2.0000	4.2426	2.4495	3.0000
DIRDAYS	0.00	260.00	15.50	42.00
LOGT(DIRDAYS)	0.0000	2.4166	1.2173	1.6330
BUDGET	0	1000000	30000	200000
LOGT(BUDGET)	0.0000	6.0000	4.4771	5.3010
COSTS	0	700000	20000	60000
LOGT(COSTS)	0.0000	5.8451	4.3011	4.7782

KEY:

%DIRINIR = percentage of directorate involved in investor relations

INDEX = index of director involvement in investor relations

DIRDAYS = director days devoted to IR per annum

BUDGET = annual investor relations budget

COSTS = cost of external IR consultant in past 12m

TEST = Minitab's correlation test for normality, a correlation of 1 indicated perfect normality

Table B-13 Correlation of data on organisation of investor relationsPEARSON

	%DIRINIR	INDEX	DIRDAYS	BUDGET
INDEX	0.422			
DIRDAYS	0.108	0.245		
BUDGET	0.036	0.209	0.079	
COSTS	0.060	0.161	0.140	0.459

SPEARMAN RANK

	%DIRINIR	INDEX	DIRDAYS	BUDGET
INDEX	0.457			
DIRDAYS	0.156	0.260		
BUDGET	-0.057	0.244	0.274	
COSTS	-0.061	0.163	0.247	0.580

Table B-14 Pearson Correlation of data on organisation of investor relations with company specific variables

	%DIRINIR	INDEX	DIRDAYS	BUDGET	COSTS
SIZE					
AV(MV)	-0.098	0.122*	0.170**	0.446**	0.374**
LOGTAVMV	-0.185**	0.199**	0.199**	0.528**	0.359**
MARKETABILITY					
LISTINGS	0.031	0.128*	0.135**	0.467**	0.350**
LOGLIST	-0.033	0.115*	0.157**	0.486**	0.408**
TRADFREQ	0.022	-0.091	-0.111	-0.176*	-0.116
LOGTRADF	0.027	-0.119*	-0.167**	-0.266**	-0.188**
RISK					
BETA	0.023	0.092	0.029	-0.006	0.022
VARIAB	0.111	-0.052	0.028	-0.036	0.002
SQRTVAR	0.110	-0.044	0.016	-0.041	-0.002
LOGTSRSK	0.127*	-0.095	-0.031	-0.097	-0.040
SPECRISK	0.120*	-0.099	0.019	-0.054	-0.018
PROFITABILITY					
707ROCE	-0.020	-0.075	-0.086	-0.070	0.005
711TPM	-0.063	-0.074	-0.100	0.047	-0.020
716PTPM	-0.065	-0.105	-0.082	0.039	-0.010
703ROSC	0.003	-0.064	-0.037	-0.013	-0.065
GEARING					
731CGEAR	-0.017	-0.059	-0.043	-0.016	0.129
732IGEAR	-0.059	-0.074	-0.080	0.125	0.039
SQRTIG	-0.064	-0.084	-0.075	0.078	0.056
733BR	-0.023	0.006	-0.040	-0.043	0.063
SQRTBR	0.004	0.027	-0.046	-0.041	0.076
TAKEOVER ACTIVITY					
TAKEOVER	-0.080	-0.013	-0.045	0.192*	0.033
LOGTAKEO	-0.076	-0.023	-0.050	0.166*	0.032
SHAREHOLDER DETAILS					
BFA%	0.090	-0.039	-0.046	-0.199*	-0.127
NEGRBFA%	0.094	-0.074	-0.048	-0.337**	-0.226**
TOTSSH	-0.079	-0.107	-0.053	-0.201*	-0.212**
SQRTOTSH	-0.074	-0.112*	-0.068	-0.214**	-0.229**
NOOFSSH	0.017	-0.111*	0.004	-0.248**	-0.207**

NOTE:

**= correlation significant at the 0.01 level (two-tail test)

* = correlation significant at the 0.05 level (two-tail test)

Table B-15 Spearman rank correlations of data on organisation of investor relations with company specific variables

	%DIRINIR	INDEX	DIRDAYS	BUDGET	COSTS
SIZE					
AV(MV)	-0.226**	0.172**	0.229**	0.622**	0.527**
MARKETABILITY					
LISTING	-0.116*	0.057	0.111	0.441**	0.329**
TRADFREQ	0.072	-0.133*	-0.247**	-0.545**	-0.441**
RISK					
BETA	0.053	0.030	0.069	0.051	0.135
VARIAB	0.123*	-0.044	-0.000	-0.155	-0.058
SPECRISK	0.134*	-0.092	-0.071	-0.249**	-0.173*
PROFITABILITY					
707ROCE	-0.047	-0.097	-0.033	-0.216**	-0.057
711TPM	0.012	0.041	-0.071	-0.068	-0.117
716PTPM	0.009	-0.027	-0.065	-0.099	-0.099
703ROSC	-0.012	-0.100	-0.018	-0.171*	-0.020
GEARING					
731CG	-0.012	-0.032	-0.023	0.095	0.138*
732IG	-0.020	0.005	-0.000	0.235**	0.122
733BR	0.020	0.071	0.065	0.111	0.152*
TAKEOVER ACTIVITY					
TAKEOVER	-0.072	-0.057	-0.035	0.039	0.026
SHAREHOLDER DETAILS					
BFA%	0.094	-0.057	-0.020	-0.405**	-0.285**
TOTSSH	-0.022	-0.078	-0.069	-0.219**	-0.313**
NOOFSSH	0.049	-0.075	-0.034	-0.289**	-0.286**

NOTE:

**= correlation significant at the 0.01 level (two-tail test)

* = correlation significant at the 0.05 level (two-tail test)

Table B-16 Kruskal-Wallis tests of association on %DIRINIR

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	264	0.3333	165.8	2.24	5.05	0.025
	1	56	0.3038	135.3	-2.24		
TFCAT	0	201	0.3333	153.7	-1.35	1.82	0.177
	1	116	0.3750	168.1	1.35		
ALPHA	1	272	0.3333	158.6	-0.67	0.45	0.503
	2	47	0.3750	168.3	0.67		
4WAYINDC	1	95	0.3750	172.6	1.52	21.39	0.000
	2	97	0.3333	160.5	0.01		
	3	84	0.3333	176.9	1.89		
	4	44	0.2500	102.9	-4.44		
SSH(Y/N)	0	93	0.3333	164.0	0.50	0.25	0.614
	1	226	0.3333	158.3	-0.50		

Table B-17 Kruskal-Wallis tests of association on INDEX

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	264	8.000	160.6	-0.78	0.62	0.430
	1	60	8.000	171.0	0.78		
TFCAT	0	205	8.000	170.5	2.43	6.03	0.014
	1	116	7.500	144.3	-2.43		
ALPHA	1	276	8.000	165.0	1.41	2.03	0.155
	2	47	8.000	144.3	-1.41		
4WAYINDC	1	95	8.000	160.7	-0.23	2.88	0.410
	2	99	8.000	158.3	-0.53		
	3	84	8.000	176.2	1.56		
	4	46	7.500	150.3	-0.96		
SSH(Y/N)	0	94	8.000	174.6	1.55	2.47	0.116
	1	229	8.000	156.8	-1.55		

Table B-18 Kruskal-Wallis tests of association on DIRDAYS

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	201	30.00	121.2	-1.70	2.91	0.088
	1	48	30.00	140.9	1.70		
TFCAT	0	154	30.00	136.9	3.65	13.43	0.000
	1	93	24.00	102.7	-3.65		
ALPHA	1	210	30.00	131.2	3.45	11.98	0.001
	2	38	20.00	87.6	-3.45		
4WAYINDC	1	76	30.00	133.5	1.24	9.70	0.022
	2	79	30.00	120.7	-0.65		
	3	63	30.00	136.6	1.47		
	4	31	22.00	91.7	-2.75		
SSH(Y/N)	0	70	30.00	131.0	0.89	0.81	0.369
	1	178	30.00	121.9	-0.89		

* = p value adjusted for ties

Table B-19 Kruskal-Wallis tests of association on BUDGET

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	104	50000	62.1	-5.12	26.31	0.000
	1	42	200000	101.7	5.12		
TFCAT	0	100	125000	87.9	6.36	40.70	0.000
	1	45	30000	39.9	-6.36		
ALPHA	1	128	100000	78.4	3.75	14.15	0.000
	2	18	30000	38.5	-3.75		
4WAYINDC	1	45	50000	57.1	-3.12	11.12	0.011
	2	48	100000	75.8	0.47		
	3	37	150000	86.3	2.13		
	4	16	125000	82.9	0.95		
SSH(Y/N)	0	47	100000	83.5	1.97	3.90	0.048
	1	99	100000	68.7	-1.97		

Table B-20 Kruskal-Wallis tests of association on COSTS

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	171	25000	96.3	-4.60	21.26	0.000
	1	39	80000	145.9	4.60		
TFCAT	0	128	40000	125.3	6.32	40.14	0.000
	1	80	20000	71.2	-6.32		
ALPHA	1	179	30000	114.2	4.99	25.03	0.000
	2	31	16000	55.2	-4.99		
4WAYINDC	1	64	25000	95.1	-1.64	4.78	0.189
	2	66	35000	116.7	1.81		
	3	59	30000	107.7	0.33		
	4	21	25000	95.7	-0.78		
SSH(Y/N)	0	61	40000	122.4	2.58	6.69	0.010
	1	149	30000	98.6	-2.58		

* = p value adjusted for ties

Table B-21 Chi-square tests of accociation between the existence of a designated investor relations officer (IROFFICER) and the independent categorical variables

STD RESIDUALS : ROWS: IROFFICER COLUMNS: OSEALIST

	NO	YES
0	1.89	-3.96
1	-0.02	0.04
2	-2.98	6.27

CHI-SQUARE = 67.414 WITH D.F. = 2 (SIGNIFICANT AT THE 0.001 LEVEL)

STD RESIDUALS : ROWS: IROFFICER COLUMNS: ALPHA

	ALPHA	BETA
0	-0.85	2.07
1	0.19	-0.47
2	1.11	-2.69

CHI-SQUARE = 13.739 WITH D.F. = 2 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS : ROWS: IROFFICER COLUMNS: 4WAYINDC

	1	2	3	4
0	1.42	0.18	-1.77	0.07
1	-0.39	0.53	0.32	-0.64
2	-1.76	-0.96	2.41	0.70

CHI-SQUARE = 16.413 WITH D.F. = 6 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS : ROWS: IROFFICER COLUMNS: TFCAT

	HIGH	LOW
0	-2.15	2.87
1	0.50	-0.67
2	2.79	-3.71

CHI-SQUARE = 35.144 WITH D.F. = 2 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IROFFICER COLUMNS: SSH(Y/N)

	NO	YES
0	-1.56	1.00
1	0.38	-0.25
2	1.98	-1.28

CHI-SQUARE = 9.200 WITH D.F. = 2 (SIGNIFICANT AT THE .02 LEVEL)

NOTE:

IROFFICER coding 0 = no designated IR officer 1 = IR officer whosw work involves other duties 2 = dedicated IR officer

Table B-22 Chi-square tests of association between the existence of dedicated investor relations staff (IRSTAFF) and the categorical independent variables

STD RESIDUALS : ROWS: IRSTAFF COLUMNS: OSEALIST

	NO	YES
0	1.87	-3.92
1	-0.835	0.73
2	-3.22	6.77

CHI-SQUARE = 75.677 WITH D.F. = 2 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IRSTAFF COLUMNS: ALPHA

	ALPHA	BETA
0	-1.13	2.74
1	0.79	-1.91
2	1.03	-2.50

CHI-SQUARE = 20.332 WITH D.F. = 2 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IRSTAFF COLUMNS: 4WAYINDC

	1	2	3	4
0	1.16	0.23	-1.22	-0.36
1	-0.29	-0.28	1.21	-0.81
2	-1.88	-0.03	0.57	1.99

CHI-SQUARE = 13.105 WITH D.F. = 6 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS ROWS: IRSTAFF COLUMNS: TFCAT

	HIGH	LOW
0	-2.59	3.45
1	1.56	-2.09
2	2.76	-3.68

CHI-SQUARE = 46.594 WITH D.F. = 2 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IRSTAFF COLUMNS: SSH(Y/N)

	NO	YES
0	-0.70	0.45
1	-0.42	0.27
2	2.08	-1.34

CHI-SQUARE = 7.084 WITH D.F. = 2 (SIGNIFICANT AT THE .05 LEVEL)

NOTE:

IRSTAFF coding; 0 = no designated IR staff, 1 = IR staff with other duties, 2 = dedicated IR staff

Table B-23 Kruskal-Wallis tests of association on the existence of a designated investor relations officer (IROFFICER) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	160	133.5	120.0	-8.12		
	1	102	382.6	173.5	1.36		
	2	63	1387.5	255.1	8.67	95.27	0.000
MARKETABILITY							
LISTINGS	0	160	0.00E+00	140.9	-4.17		
	1	102	0.00E+00	162.3	-0.08		
	2	63	1.00E+00	220.1	5.37	70.22	0.000
TRADFREQ	0	159	0.00E+00	185.8	4.63		
	1	100	0.00E+00	152.2	-1.20		
	2	63	0.00E+00	114.8	-4.44	37.57	0.000
RISK							
BETA	0	155	0.9800	143.7	-2.24		
	1	96	1.0550	168.1	1.73		
	2	58	1.0350	163.6	0.82	5.10	0.079
VARIAB	0	155	34.20	159.3	0.86		
	1	96	33.70	158.7	0.49		
	2	58	31.85	137.2	-1.68	2.83	0.244
SPECRISK	0	155	25.40	168.1	2.59		
	1	96	23.75	153.8	-0.16		
	2	58	20.15	121.9	-3.13	11.33	0.004
PROFITABILITY							
707ROCE	0	154	17.88	164.7	1.69		
	1	97	15.62	149.4	-0.88		
	2	60	15.94	144.4	-1.12	2.98	0.226
711TPM	0	150	12.62	154.6	1.36		
	1	91	11.03	136.5	-1.55		
	2	54	12.71	149.0	0.09	2.56	0.278
716PTPM	0	150	8.510	165.9	2.08		
	1	97	6.890	139.8	-2.02		
	2	62	8.595	152.5	-0.25	5.07	0.080
703ROSC	0	156	12.25	166.7	1.47		
	1	99	11.30	142.8	-2.13		
	2	62	13.35	165.6	0.63	4.53	0.105

Table B-23 (continued) Kruskal-Wallis tests of association on the existence of a designated investor relations officer (IROFFICER) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	0	155	29.51	153.8	-0.53		
	1	97	29.60	154.4	-0.28		
	2	60	32.80	167.0	1.00	1.01	0.604
732IGEAR	0	150	17.53	150.5	-0.38		
	1	95	18.04	149.7	-0.38		
	2	59	19.48	162.0	0.93	0.87	0.649
733BR	0	156	0.4050	155.0	-0.87		
	1	99	0.4100	152.7	-0.88		
	2	63	0.5100	181.4	2.11	4.49	0.106
TAKEOVER ACTIVITY							
TAKEOVER	0	160	0.00E+00	162.0	-0.18		
	1	102	0.00E+00	163.4	0.05		
	2	63	0.00E+00	164.8	0.17	0.38	0.825
SHAREHOLDER DETAILS							
BFA%	0	159	0.9000	184.3	4.12		
	1	102	0.2450	156.4	-0.79		
	2	63	0.1000	117.2	-4.28	23.86	0.000
TOTSSH	0	159	17.450	182.6	3.79		
	1	102	9.470	150.6	-1.55		
	2	63	6.020	131.0	-2.97	16.48	0.000
NOOFSSH	0	159	2.000	185.7	4.38		
	1	102	1.000	152.8	-1.27		
	2	63	1.000	119.7	-4.04	25.32	0.000

KEY:

IROFFICER coding 0 = no designated IR officer 1 = IR officer whose work involved other duties 2 = dedicated IR officer

* = p value adjstuted for ties

Table B-24 Kruskal-Wallis tests of association on the existence of dedicated IR staff (IRSTAFF) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	175	138.1	124.3	-8.03		
	1	107	413.0	183.1	2.70		
	2	43	2021.2	270.5	8.06	90.96	0.000
MARKETABILITY							
LISTINGS	0	175	0.00E+00	142.3	-4.29		
	1	107	0.00E+00	167.5	0.61		
	2	43	1.00E+00	236.1	5.48	76.12	0.000
TRADFREQ	0	174	1.00E-01	188.4	5.63		
	1	105	0.00E+00	139.5	-2.94		
	2	43	0.00E+00	106.2	-4.19	48.30	0.000
RISK							
BETA	0	167	0.9900	145.0	-2.14		
	1	101	1.0500	169.9	2.04		
	2	41	1.0400	159.2	0.32	5.01	0.082
VARIAB	0	167	33.90	158.5	0.75		
	1	101	34.20	162.6	1.04		
	2	41	30.00	121.9	-2.55	6.61	0.037
SPECRISK	0	167	24.40	165.5	2.25		
	1	101	24.20	158.1	0.42		
	2	41	18.50	104.5	-3.89	15.55	0.000
PROFITABILITY							
707ROCE	0	168	17.88	165.2	1.96		
	1	106	15.44	147.9	-1.15		
	2	37	14.20	137.5	-1.34	4.21	0.123
711TPM	0	164	12.62	154.4	1.45		
	1	100	11.01	137.7	-1.48		
	2	31	13.05	147.2	-0.06	2.38	0.305
716PTPM	0	165	8.620	166.4	2.40		
	1	103	8.060	150.4	-0.64		
	2	41	5.350	120.5	-2.65	9.06	0.011
703ROSC	0	170	13.30	170.8	2.47		
	1	106	10.80	141.8	-2.37		
	2	41	13.20	154.5	-0.34	6.65	0.036

Table B-24 (continued) Kruskal-Wallis tests of association on the existence of dedicated IR staff (IRSTAFF) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	0	169	29.30	149.9	-1.41	5.17	0.076
	1	106	29.43	156.4	-0.01		
	2	37	33.22	187.1	2.20		
732IGEAR	0	164	17.39	146.4	-1.31	3.83	0.148
	1	104	17.59	153.3	0.11		
	2	36	23.62	178.0	1.86		
733BR	0	170	0.4100	154.2	-1.10	8.88	0.012
	1	106	0.3950	152.4	-0.97		
	2	42	0.5450	198.8	2.98		
TAKEOVER ACTIVITY							
TAKEOVER	0	175	0.00E+00	161.6	-0.29	1.69	0.429
	1	107	0.00E+00	163.1	0.01		
	2	43	0.00E+00	168.4	0.41		
SHAREHOLDER DETAILS							
BFA%	0	174	0.80500	181.1	3.85	23.28	0.000
	1	107	0.24000	155.0	-1.01		
	2	43	0.03000	105.9	-4.25		
TOTSSH	0	174	15.950	173.8	2.35	12.69	0.002
	1	107	13.480	162.1	-0.06		
	2	43	5.080	117.7	-3.36		
NOOFSSH	0	174	2.000	177.8	3.17	20.76	0.000
	1	107	1.000	159.8	-0.36		
	2	43	1.000	107.2	-4.16		

KEY:

IRSTAFF coding 0 = no designated IR staff, 1 = IR staff with other duties, 2 = dedicated IR staff

* = p value adjusted for ties

Table B-25 Chi-square tests of association between the existence of a separate IR department (IRDEPT) and the independent categorical variables

STD RESIDUALS : ROWS: IRDEPT COLUMNS: ALPHA

	ALPHA	BETA
NO	-0.21	0.51
YES	0.66	-1.61

CHI-SQUARE = 3.328 WITH D.F. = 1 (NOT SIGNIFICANT)

STD RESIDUALS : ROWS: IRDEPT COLUMNS: OSEALIST

	0	1
NO	0.87	-1.82
YES	-2.72	5.72

CHI-SQUARE = 44.208 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IRDEPT COLUMNS: TFCAT

	HIGH	LOW
NO	-0.57	0.76
YES	1.78	-2.37

CHI-SQUARE = 9.722 WITH D.F. = 1 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS : ROWS: IRDEPT COLUMNS: 4WAYINDC

	1	2	3	4
NO	0.31	-0.20	-0.03	-0.12
YES	-0.96	0.62	0.09	0.37

CHI-SQUARE = 1.592 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS : ROWS: IRDEPT COLUMNS: SSH(Y/N)

	0	1
NO	-0.13	0.08
YES	0.41	-0.26

CHI-SQUARE = 0.257 WITH D.F. = 1 (NOT SIGNIFICANT)

Table B-26 Chi-square tests of association between the existence of an external IR consultant (IRCONS) and the independent categorical variables

STD RESIDUALS : ROWS: IRCONS COLUMNS: ALPHA

	ALPHA	BETA
NO	-0.43	1.04
YES	0.22	-0.53

CHI-SQUARE = 1.601 WITH D.F. = 1 (NOT SIGNIFICANT)

STD RESIDUALS : ROWS: IRCONS COLUMNS: OSEALIST

	0	1
NO	-0.19	0.40
YES	0.10	-0.20

CHI-SQUARE = 0.244 WITH D.F. = 1 (NOT SIGNIFICANT)

STD RESIDUALS : ROWS: IRCONS COLUMNS: TFCAT

	HIGH	LOW
NO	-0.43	0.57
YES	0.22	-0.29

CHI-SQUARE = 0.635 WITH D.F. = 1 (NOT SIGNIFICANT)

STD RESIDUALS : ROWS: IRCONS COLUMNS: 4WAYINDC

	1	2	3	4
NO	0.86	-0.57	-2.53	3.01
YES	-0.44	0.29	1.30	-1.55

CHI-SQUARE = 20.899 WITH D.F. = 3 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS : ROWS: IRCONS COLUMNS: SSH(Y/N)

	0	1
NO	-0.16	0.10
YES	0.08	-0.05

CHI-SQUARE = 0.045 WITH D.F. = 1 (NOT SIGNIFICANT)

Table B-27 Kruskal-Wallis test of association between the existence of a separate investor relations department (IRDEPT) and the company specific continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	295	210.3	154.5	-5.13		
	1	30	1333.5	246.9	5.13	26.36	0.000
MARKETABILITY							
LISTINGS	0	295	0.00E+00	155.5	-4.54		
	1	30	1.00E+00	237.2	4.54	45.16	0.000
TRADFREQ	0	292	0.00E+00	166.2	2.83		
	1	30	0.00E+00	115.7	-2.83	10.89	0.001
RISK							
BETA	0	281	1.020	153.8	-0.76		
	1	28	1.035	167.3	0.76	0.58	0.446
VARIAB	0	281	33.50	156.3	0.83		
	1	28	32.80	141.6	-0.83	0.69	0.407
SPECRISK	0	281	24.10	157.4	1.52		
	1	28	22.20	130.6	-1.52	2.30	0.130
PROFITABILITY							
707ROCE	0	282	16.19	154.9	-0.65		
	1	29	17.60	166.3	0.65	0.42	0.519
711TPM	0	268	12.01	147.5	-0.32		
	1	27	13.31	152.9	0.32	0.10	0.752
716PTPM	0	279	8.090	153.9	-0.63		
	1	30	10.165	164.8	0.63	0.40	0.527
703ROSC	0	288	12.15	155.7	-1.99		
	1	29	15.70	191.3	1.99	3.97	0.047

Table B-27 (continued) Kruskal-Wallis test of association between the existence of a separate investor relations department (IRDEPT) and the company specific continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	0	283	29.95	154.6	-1.16		
	1	29	33.22	175.0	1.16	1.34	0.247
732IGEAR	0	275	17.67	152.2	-0.17		
	1	29	17.69	155.1	0.17	0.03	0.865
733BR	0	288	0.4200	157.1	-1.44		
	1	30	0.4900	182.5	1.44	2.07	0.151
TAKEOVER ACTIVITY							
TAKEOVER	0	295	0.00E+00	162.5	-0.30		
	1	30	0.00E+00	168.0	0.30	0.87	0.352
SHAREHOLDER DETAILS							
BFA%	0	294	0.4300	167.0	2.73		
	1	30	0.1400	118.1	-2.73	7.46	0.006
TOTSSH	0	294	13.750	164.4	1.14		
	1	30	6.395	144.0	-1.14	1.33	0.250
NOOFSSH	0	294	1.000	165.1	1.58		
	1	30	1.000	136.7	-1.58	2.63	0.105

KEY:

IRDEPT coding of levels, 0 = no separate IR department, 1 = separate IR department

* = p value adjusted for ties

Table B-28 Kruskal-Wallis test of association between the existence of an external investor relations consultant (IRCONS) and the company specific continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	68	257.0	164.5	0.20		
	1	256	283.9	162.0	-0.20	0.04	0.844
MARKETABILITY							
LISTINGS	0	68	0.00E+00	165.2	0.27		
	1	256	0.00E+00	161.8	-0.27	0.16	0.690
TRADFREQ	0	67	0.00E+00	170.8	0.97		
	1	254	0.00E+00	158.4	-0.97	1.27	0.260
RISK							
BETA	0	67	1.040	156.5	0.21		
	1	241	1.020	153.9	-0.21	0.04	0.835
VARIAB	0	67	34.50	159.6	0.53		
	1	241	33.10	153.1	-0.53	0.28	0.595
SPECRISK	0	67	24.10	155.8	0.13		
	1	241	24.00	154.1	-0.13	0.02	0.896
707ROCE	0	64	15.24	142.0	-1.35		
	1	246	16.78	159.0	1.35	1.84	0.176
PROFITABILITY							
711TPM	0	57	12.79	158.1	1.05		
	1	237	12.01	144.9	-1.05	1.11	0.293
716PTPM	0	64	8.470	163.2	0.88		
	1	244	8.085	152.2	-0.88	0.77	0.380
703ROSC	0	65	11.60	148.0	-1.04		
	1	251	13.00	161.2	1.04	1.08	0.298

Table B-28 (continued) Kruskal-Wallis test of association between the existence of an external investor relations consultant (IRCONS) and the company specific continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	0	65	25.30	144.1	-1.20	1.45	0.229
	1	246	30.65	159.2	1.20		
732IGEAR	0	63	18.19	151.9	-0.01	0.00	0.995
	1	240	17.62	152.0	0.01		
733BR	0	66	0.3700	151.6	-0.74	0.55	0.460
	1	251	0.4300	161.0	0.74		
TAKEOVER ACTIVITY							
TAKEOVER	0	68	0.00E+00	161.2	-0.13	0.15	0.702
	1	256	0.00E+00	162.8	0.13		
SHAREHOLDER DETAILS							
BFA%	0	67	0.3000	164.8	0.27	0.07	0.786
	1	256	0.3500	161.3	-0.27		
TOTSSH	0	67	16.54	169.7	0.76	0.59	0.441
	1	256	12.12	160.0	-0.76		
NOOFSSH	0	67	2.000	165.0	0.30	0.09	0.759
	1	256	1.000	161.2	-0.30		

KEY:

IRCONS coding of levels, 1 = external IR consultant, 0 = no external IR consultant

* = p value adjusted for ties

Table B-29 Stepwise regression of director involvement index (INDEX)

STEPWISE REGRESSION OF INDEX ON 17 PREDICTORS, WITH N = 278 N(CASES WITH MISSING OBS.) = 47 N(ALL CASES) = 325		
STEP	1	2
CONSTANT	6.250	6.269
LOGTAVMV	0.73	0.78
T-RATIO	3.15	3.39
716PTPM		-0.0153
T-RATIO		-2.22
S	2.28	2.27
R-SQ	3.47	5.17

Table B-30 Multiple regression of director involvement index (INDEX)
using variables identified by stepwise regression

The regression equation is

INDEX = 6.44 + 0.700 LOGTAVMV - 0.0141 716PTPM

308 cases used 17 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	6.4438	0.5450	11.82	0.000
LOGTAVMV	0.7000	0.2109	3.32	0.001
716PTPM	-0.014138	0.006718	-2.10	0.036

s = 2.232 R-sq = 4.6% R-sq(adj) = 3.9%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	72.482	36.241	7.28	0.001
Error	305	1519.086	4.981		
Total	307	1591.568			

Table B-31 Stepwise regression of director director days (DIRDAYS)

STEPWISE REGRESSION OF DIRDAYS ON 17 PREDICTORS, WITH N = 214 N(CASES WITH MISSING OBS.) = 111 N(ALL CASES) = 325	
STEP	1
CONSTANT	8.747
LOGTAVMV	11.9
T-RATIO	2.89
S	35.9
R-SQ	3.79

Table B-32 Multiple regression of director days (DIRDAYS) using variables identified by stepwise regression

The regression equation is
DIRDAYS = 8.44 + 11.6 LOGTAVMV

249 cases used 76 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	8.437	9.242	0.91	0.362
LOGTAVMV	11.575	3.631	3.19	0.002

s = 34.97 R-sq = 4.0% R-sq(adj) = 3.6%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	12424	12424	10.16	0.002
Error	247	302015	1223		
Total	248	314439			

Table B-33 Stepwise regression of investor relations budget in fk (BUDGET)

STEPWISE REGRESSION OF BUDGET ON 17 PREDICTORS, WITH N = 128 N(CASES WITH MISSING OBS.) = 197 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	-366.08	-1196.83	-998.68	-1031.71
LOGTAVMV	217.14	278.19	222.24	239.73
T-RATIO	7.58	8.54	5.27	5.64
LOGTSRSK		481.88	424.58	546.18
T-RATIO		3.48	3.05	3.64
LOGLIST			186.59	184.57
T-RATIO			2.05	2.05
BETA				-177.15
T-RATIO				-2.05
S	213.87	205.01	202.44	199.88
R-SQ	31.32	37.40	39.44	41.44

Table B-34 Multiple regression of investor relations budget in fk (BUDGET) using variables identified by stepwise regression

The regression equation is

BUDGET = - 1014 + 230 LOGTAVMV + 553 LOGTSRSK + 158 LOGLIST
- 187 BETA

141 cases used 184 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-1013.8	252.5	-4.01	0.000
LOGTAVMV	230.23	40.37	5.70	0.000
LOGTSRSK	552.9	145.8	3.79	0.000
LOGLIST	157.65	83.43	1.89	0.061
BETA	-187.01	83.35	-2.24	0.026

s = 197.6 R-sq = 38.7% R-sq(adj) = 36.9%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	3355601	838900	21.48	0.000
Error	136	5312665	39064		
Total	140	8668265			

Table B-35 Stepwise regression of cost of external consultant in £k (COSTS)

STEPWISE REGRESSION OF COSTS ON 17 PREDICTORS, WITH N = 188 N(CASES WITH MISSING OBS.) = 137 N(ALL CASES) = 325			
STEP	1	2	3
CONSTANT	41.02	-10.27	-174.01
LOGLIST	139	101	91
T-RATIO	6.01	3.54	3.19
LOGTAVMV		22	37
T-RATIO		2.14	3.07
LOGTSRSK			92
T-RATIO			2.36
S	66.9	66.3	65.5
R-SQ	16.27	18.30	20.70

Table B-36 Multiple regression of cost of external consultant in £k (COSTS) using variables identified by stepwise regression

The regression equation is

$$\text{COSTS} = -158 + 90.5 \text{ LOGLIST} + 34.6 \text{ LOGTAVMV} + 84.1 \text{ LOGTSRSK}$$

203 cases used 122 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-158.21	70.12	-2.26	0.025
LOGLIST	90.47	26.33	3.44	0.001
LOGTAVMV	34.57	11.22	3.08	0.002
LOGTSRSK	84.11	37.18	2.26	0.025

s = 63.99 R-sq = 20.7% R-sq(adj) = 19.5%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	212163	70721	17.27	0.000
Error	199	814872	4095		
Total	202	1027036			

Table B-37 Stepwise regression of director involvement index (INDEX) with critical F value reduced to 2

STEPWISE REGRESSION OF INDEX ON 17 PREDICTORS, WITH N = 278 N(CASES WITH MISSING OBS.) = 47 N(ALL CASES) = 325					
STEP	1	2	3		
CONSTANT	6.250	6.269	6.137		
LOGTAVMV	0.73	0.78	0.79		
T-RATIO	3.15	3.39	3.41		
716PTPM		-0.0153	-0.0403		
T-RATIO		-2.22	-2.13		
711TPM			0.024		
T-RATIO			1.42		
S	2.28	2.27	2.26		
R-SQ	3.47	5.17	5.86		
The regression equation is INDEX = 6.09 + 0.817 LOGTAVMV - 0.0383 716PTPM + 0.0220 711TPM					
293 cases used 32 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	6.0945	0.5748	10.60	0.000	
LOGTAVMV	0.8172	0.2242	3.64	0.000	
716PTPM	-0.03834	0.01870	-2.05	0.041	
711TPM	0.02197	0.01677	1.31	0.191	
s = 2.245 R-sq = 6.0% R-sq(adj) = 5.0%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	3	92.473	30.824	6.12	0.000
Error	289	1456.161	5.039		
Total	292	1548.635			

Table B-38 Stepwise regression of director days (DIRDAYS) with critical F value reduced to 2

STEPWISE REGRESSION OF DIRDAYS ON 17 PREDICTORS, WITH N = 214 N(CASES WITH MISSING OBS.) = 111 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	8.7471	-7.1784	-0.2141	2.5966
LOGTAVMV	11.9	16.0	16.3	16.2
T-RATIO	2.89	3.44	3.53	3.52
NOOFSSH		3.3	8.1	8.2
T-RATIO		1.86	2.86	2.91
SQRTOTSH			-4.3	-4.5
T-RATIO			-2.16	-2.30
707ROCE				-0.097
T-RATIO				-1.54
S	35.9	35.7	35.4	35.3
R-SQ	3.79	5.34	7.39	8.43

The regression equation is
DIRDAYS = 1.7 + 16.1 LOGTAVMV + 7.86 NOOFSSH - 4.14 SQRTOTSH
- 0.0902 707ROCE

237 cases used 88 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	1.69	12.68	0.13	0.894
LOGTAVMV	16.092	4.226	3.81	0.000
NOOFSSH	7.858	2.748	2.86	0.005
SQRTOTSH	-4.144	1.891	-2.19	0.029
707ROCE	-0.09018	0.06234	-1.45	0.149

s = 34.95 R-sq = 8.2% R-sq(adj) = 6.6%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	25158	6290	5.15	0.001
Error	232	283420	1222		
Total	236	308578			

Table B-39 Stepwise regression of investor relations budget (BUDGET) with critical F value reduced to 2

STEPWISE REGRESSION OF BUDGET ON 17 PREDICTORS, WITH N = 128 N(CASES WITH MISSING OBS.) = 197 N(ALL CASES) = 325						
STEP	1	2	3	4	5	6
CONSTANT	-366076	-1196828	-998676	-1031712	-1039788	-1019689
LOGTAVMV	217139	278187	222240	239725	240878	220349
T-RATIO	7.58	8.54	5.27	5.64	5.72	4.98
LOGTSRSK		481879	424582	546183	559914	541115
T-RATIO		3.48	3.05	3.64	3.77	3.65
LOGLIST			186586	184571	172901	167069
T-RATIO			2.05	2.05	1.94	1.88
BETA				-177149	-194447	-180008
T-RATIO				-2.05	-2.26	-2.09
LOGTAKEO					610261	586795
T-RATIO					1.93	1.86
NEGRBFA%						-76029
T-RATIO						-1.45
S	213874	205006	202437	199884	197701	196804
R-SQ	31.32	37.40	39.44	41.44	43.17	44.15
The regression equation is BUDGET = - 1013099 + 214866 LOGTAVMV + 552268 LOGTSRSK + 143375 LOGLIST - 190111 BETA + 640597 LOGTAKEO - 66087 NEGRBFA%						
141 cases used 184 cases contain missing values						
Predictor	Coef	Stdev	t-ratio	p		
Constant	-1013099	248799	-4.07	0.000		
LOGTAVMV	214866	41806	5.14	0.000		
LOGTSRSK	552268	144137	3.83	0.000		
LOGLIST	143375	82330	1.74	0.084		
BETA	-190111	83121	-2.29	0.024		
LOGTAKEO	640597	310353	2.06	0.041		
NEGRBFA%	-66087	49383	-1.34	0.183		
s = 194569 R-sq = 41.5% R-sq(adj) = 38.9%						
Analysis of Variance						
SOURCE	DF	SS	MS	F	p	
Regression	6	3.59544E+12	5.99239E+11	15.83	0.000	
Error	134	5.07283E+12	37856935936			
Total	140	8.66827E+12				

Table B-40 Stepwise regression of external consultant costs (COSTS)
with critical F value reduced to 2

STEPWISE REGRESSION OF COSTS ON 17 PREDICTORS, WITH N = 188 N(CASES WITH MISSING OBS.) = 137 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	41023	-10274	-174007	-165355
LOGLIST	138569	101375	91391	90393
T-RATIO	6.01	3.54	3.19	3.17
LOGTAVMV		22360	36862	32515
T-RATIO		2.14	3.07	2.66
LOGTSRSK			92365	105206
T-RATIO			2.36	2.65
SQRTOTSH				-4292
T-RATIO				-1.68
S	66935	66297	65492	65167
R-SQ	16.27	18.30	20.70	21.91
STEP	5	6	7	8
CONSTANT	-169052	-231869	-310024	-318509
LOGLIST	87692	89411	87802	84049
T-RATIO	3.09	3.17	3.13	2.99
LOGTAVMV	25669	31950	32867	33683
T-RATIO	2.02	2.44	2.52	2.58
LOGTSRSK	111326	272654	284439	295217
T-RATIO	2.81	2.74	2.86	2.97
SQRTOTSH	-4913	-5364	-5338	-5034
T-RATIO	-1.92	-2.10	-2.10	-1.98
NEGRBFA%	-26061	-26681	-25566	-25501
T-RATIO	-1.83	-1.88	-1.81	-1.81
SQRTVAR		-30048	-33162	-35685
T-RATIO		-1.76	-1.94	-2.09
SQRTBR			28814	29478
T-RATIO			1.66	1.71
731CGEAR				126
T-RATIO				1.50
S	64756	64383	64071	63848
R-SQ	23.32	24.61	25.75	26.68

Table B-40 (continued) Stepwise regression of external consultant costs (COSTS) with critical F value reduced to 2

The regression equation is

$$\begin{aligned} \text{COSTS} = & -251412 + 83635 \text{ LOGLIST} + 34522 \text{ LOGTAVMV} + 265976 \text{ LOGTSRSK} \\ & - 4929 \text{ SQRTOTSH} - 20041 \text{ NEGRBFA\%} - 31771 \text{ SQRTVAR} \\ & + 11380 \text{ SQRTBR} + 104 \text{ 731CGEAR} \end{aligned}$$

195 cases used 130 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-251412	85378	-2.94	0.004
LOGLIST	83635	27027	3.09	0.002
LOGTAVMV	34522	12797	2.70	0.008
LOGTSRSK	265976	97076	2.74	0.007
SQRTOTSH	-4929	2427	-2.03	0.044
NEGRBFA%	-20041	13616	-1.47	0.143
SQRTVAR	-31771	16621	-1.91	0.057
SQRTBR	11380	12492	0.91	0.364
731CGEAR	104.04	82.48	1.26	0.209

s = 63687 R-sq = 25.8% R-sq(adj) = 22.6%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	8	2.62571E+11	32821397504	8.09	0.000
Error	186	7.54411E+11	4055972608		
Total	194	1.01698E+12			

Table B-41 Multiple regression of investor relations budget in £k (BUDGET) using all independent variables

The regression equation is

$$\begin{aligned} \text{BUDGET} = & -763 + 196 \text{ LOGTAVMV} + 153 \text{ LOGLIST} - 28 \text{ LOGTRADF} \\ & - 120 \text{ BETA} - 17 \text{ SQRTVAR} + 647 \text{ LOGTSRSK} - 0.62 \text{ 707ROCE} \\ & - 1.72 \text{ 711TPM} + 1.85 \text{ 716PTPM} + 0.282 \text{ 703ROSC} \\ & - 0.056 \text{ 731CGEAR} + 0.7 \text{ SQRTIG} - 105 \text{ SQRTBR} + 531 \text{ LOGTAKEO} \\ & - 103 \text{ NEGRBFA\%} - 27.4 \text{ SQRTOTSH} \\ & + 23.7 \text{ NOOFSSH} + 23.3 \text{ INDC2} + 110 \text{ INDC3} + 31 \text{ INDC4} \end{aligned}$$

128 cases used 197 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-763.4	483.8	-1.58	0.118
LOGTAVMV	196.14	55.30	3.55	0.001
LOGLIST	153.01	95.30	1.61	0.111
LOGTRADF	-28.1	204.0	-0.14	0.891
BETA	-119.9	192.7	-0.62	0.535
SQRTVAR	-17.1	124.4	-0.14	0.891
LOGTSRSK	647.0	595.1	1.09	0.279
707ROCE	-0.624	1.274	-0.49	0.625
711TPM	-1.722	2.568	-0.67	0.504
716PTPM	1.850	2.762	0.67	0.505
703ROSC	0.2823	0.8967	0.31	0.753
731CGEAR	-0.0557	0.2249	-0.25	0.805
SQRTIG	0.68	11.43	0.06	0.953
SQRTBR	-104.86	95.30	-1.10	0.274
LOGTAKEO	530.9	330.9	1.60	0.112
NEGRBFA%	-102.78	59.16	-1.74	0.085
SQRTOTSH	-27.38	17.65	-1.55	0.124
NOOFSSH	23.65	25.73	0.92	0.360
INDC2	23.28	49.64	0.47	0.640
INDC3	110.01	57.28	1.92	0.057
INDC4	31.5	105.2	0.30	0.765

s = 200.7

R-sq = 48.6%

R-sq(adj) = 39.0%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	20	4079516	203976	5.06	0.000
Error	107	4311961	40299		
Total	127	8391476			

NOTE:

INDC2, INDC3 and INDC4 are dummy variables denoting industrial classification, INDC1 is incorporated in the constant term.

Appendix C Tables of results on the assessment of and execution of the investor relations function

C-1	Number of surveys in the past 12 months (SURVEYS(A))
C-2	Number of surveys more than 12 months but less than 5 years ago (SURVEYS(B))
C-3	Reasons for commissioning survey i) General interest
C-4	Reasons for commissioning survey ii) To assess success of investor relations programme
C-5	Reasons for commissioning survey iii) To assess need for setting up an investor relations function
C-6	Reasons for commissioning survey iv) To assess need for expanding investor relations function
C-7	Chi-square tests of association between the commissioning of surveys of City opinion (SURVEYS(Y/N)) and the independent categorical variables
C-8	Kruskal-Wallis tests of association on the responses to whether or not surveys had been commissioned (SURVEYS(Y/N)) and the company specific independent continuous variables
C-9	Correlation of questionnaire responses on number of surveys of City opinion
C-9	Correlation of questionnaire responses on number of surveys of City opinion
C-10	Descriptive statistics for questionnaire responses on number of surveys
C-11	Correlation of questionnaire responses on number of surveys with company specific variables
C-12	Spearman rank correlation of questionnaire responses with company specific variables
C-13	Kruskal-Wallis tests of association between number of surveys in past 12 months (SURVEYS(A)) and company specific categorical variables
C-14	Kruskal-Wallis tests of association between number of surveys in past 4 years (SURVEYS(B)) and company specific categorical variables
C-15	Kruskal-Wallis tests of association between number of surveys past 5 years (SURVEYS) and company specific categorical variables

- C-16 Meetings for delegates from different organisations
- C-17 Meetings for individuals or small groups from the same organisation
- C-18 Answering telephone queries
- C-19 Providing feedback on analysts' reports
- C-20 Mailing information to analysts and fund managers
- C-21 Respondents' opinion of importance of methods of communication with analysts
- C-22 Descriptive statistics for index of investor relations activity (ACTIVITY)
- C-23 Pearson Correlation of ACTIVITY with the continuous company specific variables
- C-24 Spearman Rank Correlation of ACTIVITY with the continuous company specific variables
- C-25 Kruskal-Wallis tests of association between ACTIVITY and categorical independent variables
- C-26 Chi-square tests of association between the holding of general meetings (GENERAL) and the independent categorical variables
- C-27 Chi-square tests of association between the holding of special meetings (SPECIAL) and the independent categorical variables
- C-28 Chi-square tests of association between the answering of telephone queries (TELEPHONE) and the independent categorical variables
- C-29 Chi-square tests of association between providing feedback on analysts' reports (FEEDBACK) and the independent categorical variables
- C-30 Chi-square tests of association between mailing information (MAILING) and the independent categorical variables
- C-31 Kruskal-Wallis tests of association between importance of holding general meetings and independent continuous variables
- C-32 Kruskal-Wallis tests of association between importance of holding special meetings and independent continuous variables
- C-33 Kruskal-Wallis tests of association between importance of answering telephone queries and independent continuous variables

- C-34 Kruskal-Wallis tests of association between importance of providing feedback on analysts' reports and independent continuous variables
- C-35 Kruskal-Wallis tests of association between importance of mailing information to analysts and independent continuous variables
- C-36 Stepwise regression of number of surveys in past 12 months (SURVEYS(A))
- C-37 Stepwise regression of number of surveys more than 12 months and up to 5 years ago (SURVEYS(B))
- C-38 Stepwise regression of number of surveys in past five years (SURVEYS)
- C-39 Stepwise regression of index of investor relations activity (ACTIVITY)
- C-40 Stepwise regression of surveys in past 12m (SURVEYS(A)) with critical F value reduced to 2
- C-41 Stepwise regression of surveys more than 12m and up to 5 years ago (SURVEYS(B)) with critical F value reduced to 2
- C-42 Multiple regression of number of surveys in past 12m (SURVEYS(A)) using all independent variables

Table C-1 Number of surveys in the past 12 months (SURVEYS(A))

	COUNT	PERCENT
0	35	24.48
1	75	52.45
2	24	16.78
3	4	2.80
4	2	1.40
5	1	0.70
6	2	1.40
N=	143	
*=	194	
MEAN 1.1189	MEDIAN 1.0000	

Table C-2 Number of surveys more than 12 months but less than 5 years ago (SURVEYS(B))

	COUNT	PERCENT
0	60	42.55
1	32	22.70
2	18	12.77
3	9	6.38
4	6	4.26
5	2	1.42
6	6	4.26
8	3	2.13
10	2	1.42
15	2	1.42
22	1	0.71
N=	141	
*=	196	
MEAN 1.000	MEDIAN 1.851	

Table C-3 Reasons for commissioning survey i) General interest

		COUNT	PERCENT
Not at all	1	31	23.13
Minor importance	2	32	23.88
Moderate importance	3	52	38.81
High importance	4	19	14.18
	N=	134	
	*=	203	
MEAN 2.4403	MEDIAN 3.0000		

Table C-4 Reasons for commissioning survey ii) To assess success of investor relations programme

		COUNT	PERCENT
Not at all	1	16	11.51
Minor importance	2	11	7.91
Moderate importance	3	24	17.27
High importance	4	88	63.31
	N=	139	
	*=	198	
MEAN 3.3237	MEDIAN 4.0000		

Table C-5 Reasons for commissioning survey iii) To assess need for setting up an investor relations function

		COUNT	PERCENT
Not at all	1	105	78.36
Minor importance	2	16	11.94
Moderate importance	3	8	5.97
High importance	4	5	3.73
	N=	134	
	*=	203	
MEAN 1.3507	MEDIAN 1.0000		

Table C-6 Reasons for commissioning survey iv) To assess need for expanding investor relations function

		COUNT	PERCENT
Not at all	1	62	45.93
Minor importance	2	28	20.74
Moderate importance	3	25	18.52
High importance	4	20	14.81
	N=	135	
	*=	202	
MEAN 2.0222	MEDIAN 2.0000		

Table C-7 Chi-square tests of association between the commissioning of surveys of City opinion (SURVEYS(Y/N)) and the independent categorical variables

STD RESIDUALS ROWS: SURVEYS(Y/N) COLUMNS: OSEALIST

	NO	YES
NO	1.20	-2.52
YES	-1.41	2.97

CHI-SQUARE = 18.628 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS ROWS: SURVEYS(Y/N) COLUMNS: TFCAT

	HIGH	LOW
NO	-1.94	2.58
YES	2.30	-3.06

CHI-SQUARE = 25.099 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS ROWS: SURVEYS(Y/N) COLUMNS: ALPHA

	ALPHA	BETA
NO	-1.08	2.63
YES	1.27	-3.09

CHI-SQUARE = 19.258 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS ROWS: SURVEYS(Y/N) COLUMNS: 4WAYINDC

	1	2	3	4
NO	-0.65	0.19	-0.12	0.82
YES	0.76	-0.22	0.14	-0.97

CHI-SQUARE = 2.731 WITH D.F. = 3 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS ROWS: SURVEYS(Y/N) COLUMNS: SSH(Y/N)

	NO	YES
NO	-1.50	0.96
YES	1.76	-1.13

CHI-SQUARE = 7.566 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

Table C-8 Kruskal-Wallis tests of association on the responses to whether or not surveys had been commissioned (SURVEYS(Y/N)) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	189	155.4	133.0	-6.78		
	1	136	709.4	204.6	6.78	45.91	0.000
MARKETABILITY							
LISTINGS	0	189	0.00E+00	149.8	-2.99		
	1	136	0.00E+00	181.4	2.99	19.55	0.000
TRADFREQ	0	188	0.00E+00	181.4	4.54		
	1	134	0.00E+00	133.6	-4.54	27.96	0.000
RISK							
BETA	0	182	1.010	146.9	-1.91		
	1	127	1.040	166.6	1.91	3.65	0.056
VARIAB	0	182	34.30	165.7	2.52		
	1	127	32.50	139.7	-2.52	6.33	0.012
SPECRISK	0	182	25.85	174.7	4.63		
	1	127	21.00	126.8	-4.63	21.44	0.000
PROFITABILITY							
707ROCE	0	179	17.27	160.5	1.03		
	1	132	15.94	149.9	-1.03	1.05	0.305
711TPM	0	171	13.06	159.8	2.80		
	1	124	10.68	131.7	-2.80	7.81	0.005
716PTPM	0	176	9.435	167.3	2.79		
	1	133	6.860	138.7	-2.79	7.80	0.005
703ROSC	0	183	12.20	159.0	0.00		
	1	134	12.95	159.0	0.00	0.00	1.000
GEARING							
731CGEAR	0	180	27.55	147.8	-1.99		
	1	132	31.95	168.4	1.99	3.97	0.046
732IGEAR	0	174	16.49	146.5	-1.37		
	1	130	19.49	160.5	1.37	1.88	0.170
733BR	0	183	0.3500	147.6	-2.68		
	1	135	0.4900	175.6	2.68	7.17	0.008
TAKEOVER ACTIVITY							
TAKEOVER	0	189	0.00E+00	163.8	0.19		
	1	136	0.00E+00	161.8	-0.19	0.34	0.563
SHAREHOLDER DETAILS							
BFA%	0	188	0.7300	175.5	2.94		
	1	136	0.2000	144.5	-2.94	8.65	0.003
TOTSSH	0	188	16.600	180.2	4.01		
	1	136	7.785	138.0	-4.01	16.49	0.000
NOSSH	0	188	2.000	178.8	3.68		
	1	136	1.00	140.0	-3.68	14.26	0.000

KEY:

SURVEYS(Y/N) coding of levels, 0 = no surveys, 1 = surveys commissioned

Table C-9 Correlation of questionnaire responses on number of surveys of City opinion

PEARSON		
	SURVEYS(A)	SURVEYS(B)
SURVEYS(B)	0.362	
SURVEYS	0.598	0.964
SPEARMAN RANK		
	SURVEYS(A)	SURVEYS(B)
SURVEYS(B)	-0.111	
SURVEYS	0.496	0.733

Table C-10 Descriptive statistics for questionnaire responses on number of surveys

	N	N*	MEAN	MEDIAN
SURVEYS(A)	135	190	1.1111	1.0000
SQRT(SURVEYS(A))	135	190	1.4148	1.4142
SURVEYS(B)	133	192	1.910	1.000
LOGT(SURVEYS(B))	133	192	0.3135	0.3010
SURVEYS	133	192	3.015	2.000
LOGT(SURVEYS)	133	192	0.5067	0.4771

	TRMEAN	STDEV	SEMEAN
SURVEYS(A)	0.9835	1.0697	0.0921
SQRT(SURVEYS(A))	1.3866	0.3322	0.0286)
SURVEYS(B)	1.395	3.218	0.279
LOGT(SURVEYS(B))	0.2852	0.3310	0.0287)
SURVEYS	2.387	3.744	0.325
LOGT(SURVEYS)	0.4779	0.2565	0.0222)

	MIN	MAX	Q1	Q3	TEST
SURVEYS(A)	0.0000	6.0000	0.0000	1.0000	0.941
(SQRT(SURVEYS(A))	1.0000	2.6458	1.0000	1.4142	0.989
SURVEYS(B)	0.000	22.000	0.000	2.000	0.851
LOGT(SURVEYS(B))	0.0000	1.3617	0.0000	0.4771	0.991
SURVEYS	1.000	28.000	1.000	3.000	0.837
LOGT(SURVEYS)	0.3010	1.4624	0.3010	0.6021	0.996

KEY:
SURVEYS(A) = number of surveys in past 12m
SURVEYS(B) = number of surveys more than 12m and less than 5 years ago
SURVEYS = total surveys in past 5 years

Table C-11 Correlation of questionnaire responses on number of surveys with company specific variables

	SURVEYS(A)	SURVEYS(B)	SURVEYS
SIZE			
LOGTAVMV	0.246**	0.156	0.203*
AV(MV)	0.207*	0.070	0.117
MARKETABILITY			
LISTINGS	0.261**	0.071	0.135
LOGLIST	0.269**	0.157	0.210*
TRADFREQ	0.187*	0.124	0.157
LOGTRADF	0.096	0.064	0.082
RISK			
BETA	-0.029	0.059	0.042
VARIAB	-0.178*	- 0.035	-0.078
SQRTVAR	-0.179*	- 0.036	-0.079
LOGTSRSK	-0.221*	- 0.087	-0.133
SPECRISK	-0.210*	- 0.087	-0.130
PROFITABILITY			
707ROCE	0.156	- 0.003	0.043
711TPM	0.208*	0.103	0.152
716PTPM	0.223*	0.021	0.082
703ROSC	0.182*	- 0.009	0.045
GEARING			
731CGEAR	-0.085	- 0.038	-0.057
732IGEAR	-0.053	0.060	0.036
SQRTIG	-0.008	0.059	0.048
733BR	0.006	- 0.005	-0.003
SQRTBR	0.022	- 0.006	0.001
TAKEOVER ACTIVITY			
TAKEOVER	-0.069	- 0.047	-0.060
LOGTAKEO	-0.067	- 0.044	-0.057
SHAREHOLDER DETAILS			
BFA%	-0.020	-0.014	-0.018
NEGRBFA%	-0.124	-0.064	-0.090
TOTSSH	-0.187*	-0.126	-0.161
SQRTOTSH	-0.187*	-0.116	-0.152
NOOFSSH	-0.216*	-0.090	-0.138

KEY:

** = significant at the .01 level, * = significant at the .05 level
(two-tail test)

Table C-12 Spearman rank correlation of questionnaire responses with company specific variables

	SURVEYS(A)	SURVEYS(B)	SURVEYS
SIZE			
AVMV	0.279**	0.069	0.238**
MARKETABILITY			
LISTING	0.215*	0.146	0.264**
TRADFREQ	-0.145	-0.022	-0.147
RISK			
BETA	-0.112	0.052	0.033
VARIAB	-0.237**	-0.026	-0.128
SPECRISK	-0.288**	-0.051	-0.180*
PROFITABILITY			
707ROCE	0.150	-0.088	0.017
711TPM	0.298**	-0.061	0.058
716PTPM	0.286**	-0.136	0.017
703ROSC	0.218*	-0.176*	-0.007
GEARING			
731CG	-0.137	0.117	0.031
732IG	-0.082	0.115	0.063
733BR	-0.001	0.017	0.020
TAKEOVER ACTIVITY			
TAKEOVER	-0.056	0.010	-0.031
SHAREHOLDER DETAILS			
BFA%	-0.142	-0.039	-0.165
TOTSSH	-0.253**	-0.072	-0.259**
NOSSH	-0.312**	-0.024	-0.253**

KEY:

** = significant at the .01 level, * = significant at the .05 level
(two-tail test)

Table C-13 Kruskal-Wallis tests of association between number of surveys in past 12 months (SURVEYS(A)) and company specific categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	95	1.000	63.4	-2.08	5.20	0.023
	1	40	1.000	78.8	2.08		
TFCAT	0	106	1.000	69.8	1.64	3.23	0.072
	1	27	1.000	56.2	-1.64		
ALPHA	1	129	1.000	67.9	-0.15	0.03	0.865
	2	6	1.000	70.4	0.15		
4WAYINDC	1	45	1.000	60.2	-1.64	5.14	0.163
	2	39	1.000	67.0	-0.19		
	3	36	1.000	78.2	1.83		
	4	15	1.000	69.5	0.16		
SSH(Y/N)	0	50	1.000	78.6	2.42	7.04	0.008
	1	85	1.000	61.7	-2.42		

Table C- 14 Kruskal-Wallis tests of association between number of surveys in past 4 years (SURVEYS(B)) and company specific categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	94	1.000	63.6	-1.56	2.65	0.104
	1	39	1.000	75.1	1.56		
TFCAT	0	104	1.000	66.4	0.22	0.05	0.819
	1	27	1.000	64.6	-0.22		
ALPHA	1	127	1.000	66.6	-0.57	0.35	0.552
	2	6	1.000	75.8	0.57		
4WAYINDC	1	44	1.00E+00	70.3	0.69	14.51	0.002
	2	39	1.00E+00	73.4	1.24		
	3	35	0.00E+00	47.9	-3.41		
	4	15	2.00E+00	85.1	1.93		
SSH(Y/N)	0	49	1.000	66.9	-0.03	0.00	0.975
	1	84	1.000	67.1	0.03		

* = p-value adjusted for ties

Table C-15 Kruskal-Wallis tests of association between number of surveys past 5 years (SURVEYS) and company specific categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	94	1.000	61.3	-2.66	7.93	0.005
	1	39	3.000	80.8	2.66		
TFCAT	0	104	2.000	68.6	1.57	2.77	0.096
	1	27	1.000	55.8	-1.57		
ALPHA	1	127	2.000	67.1	0.20	0.04	0.836
	2	6	1.000	64.0	-0.20		
4WAYINDC	1	44	2.000	66.3	-0.14	3.19	0.363
	2	39	2.000	70.1	0.61		
	3	35	1.000	59.5	-1.33		
	4	15	3.000	78.2	1.19		
SSH(Y/N)	0	49	2.000	75.5	1.93	4.20	0.041
	1	84	1.000	62.1	-1.93		

* = p-value adjusted for ties

Table C-16 Meetings for delegates from different organisations

		COUNT	PERCENT
Not at all - not done	1	8	2.41
Minor importance	2	22	6.63
Moderate importance	3	135	40.66
High importance	4	167	50.30
	N=	332	
	*=	5	
MEAN 3.3886		MEDIAN 4.0000	

Table C-17 Meetings for individuals or small groups from the same organisation

		COUNT	PERCENT
Not at all - not done	1	6	1.80
Minor importance	2	8	2.40
Moderate importance	3	54	16.17
High importance	4	266	79.64
	N=	334	
	*=	3	
MEAN 3.7365		MEDIAN 4.0000	

Table C-18 Answering telephone queries

		COUNT	PERCENT
Not at all - not done	1	2	0.60
Minor importance	2	32	9.58
Moderate importance	3	128	38.32
High importance	4	172	51.50
	N=	334	
	*=	3	
MEAN 3.4072	MEDIAN 4.0000		

Table C-19 Providing feedback on analysts' reports

		COUNT	PERCENT
Not at all - not done	1	15	4.52
Minor importance	2	58	17.47
Moderate importance	3	150	45.18
High importance	4	109	32.83
	N=	332	
	*=	5	
MEAN 3.0633	MEDIAN 3.0000		

Table C-20 Mailing information to analysts and fund managers

		COUNT	PERCENT
Not at all - not done	1	41	12.20
Minor importance	2	93	27.68
Moderate importance	3	129	38.39
High importance	4	73	21.73
	N=	336	
	*=	1	
MEAN 2.6964	MEDIAN 3.0000		

Table C-21 Respondents' opinion of importance of methods of communication with analysts

Rank	Mean (n = 325)	Median	Wilcoxon test probability
1 Individual meetings	3.7329	4	
			0.000
2 Telephone queries	3.4161	4	
			0.734
3 General meetings	3.3906	3	
			0.000
4 Feedback on reports	3.0625	3	
			0.000
5 Mailing information	2.7006	3	
KEY: Rankings of responses 1 = Not at all - not done, 2 = Minor importance, 3 = Moderate importance, 4 = High importance)			

Table C-22 Descriptive statistics for index of investor relations activity (ACTIVITY)

	N	N*	MEAN	MEDIAN
ACTIVITY	324	1	11.565	12.000

	TRMEAN	STDEV	SEMEAN
ACTIVITY	11.555	2.606	0.145

	MIN	MAX	Q1	Q3	TEST
ACTIVITY	2.000	20.000	10.000	13.000	0.996

NOTE:
TEST = Minitab's correlation test for normality, a correlation of 1 indicates a perfectly normal distribution

Table C-23 Pearson Correlation of ACTIVITY with the continuous company specific variables

	ACTIVITY
SIZE	
AV(MV)	0.083
LOGTAVMV	0.161**
MARKETABILITY	
LISTINGS	0.096
LOGLIST	0.130*
TRADFREQ	-0.090
LOGTRADF	-0.164**
RISK	
BETA	0.051
VARIAB	0.057
SQRTVAR	0.045
SPECRISK	0.048
LOGTSRSK	0.024
PROFITABILITY	
707ROCE	-0.029
711TPM	-0.038
716PTPM	-0.033
703ROSC	-0.020
GEARING	
731CGEAR	0.031
732IGEAR	-0.127*
SQRTIG	-0.136*
733BR	-0.028
SQRTBR	-0.011
TAKEOVER ACTIVITY	
TAKEOVER	-0.040
LOGTAKEO	-0.044
SHAREHOLDER DETAILS	
BFA%	-0.054
NEGRBFA%	-0.029
TOTSSH	-0.114*
SQRTOTSH	-0.090
NOOFSSH	-0.122*

KEY:

** = significant at the .01 level, * = significant at the .05 level
(two-tail test)

Table C-24 Spearman Rank Correlation of ACTIVITY with the continuous company specific variables

	ACTIVITY
SIZE	
AV(MV)	0.177**
MARKETABILITY	
LISTING	0.171**
TRADFREQ	-0.187**
RISK	
BETA	0.052
VARIAB	0.033
SPECRISK	-0.007
PROFITABILITY	
707ROCE	-0.012
711TPM	-0.021
716PTPM	-0.027
703ROSC	0.009
GEARING	
731CG	0.063
732IG	-0.050
733BR	0.074
TAKEOVER ACTIVITY	
TAKEOVER	-0.047
SHAREHOLDER DETAILS	
BFA%	-0.044
TOTSSH	-0.083
NOOFSSH	-0.103

KEY:

** = significant at the .01 level, * = significant at the .05 level
(two-tail test)

Table C-25 Kruskal-Wallis tests of association between ACTIVITY and categorical independent variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	265	11.00	154.8	-3.15	10.06	0.002
	1	59	12.00	197.2	3.15		
TFCAT	0	205	12.00	173.0	3.07	9.59	0.002
	1	116	11.00	139.9	-3.07		
ALPHA	1	276	12.00	167.5	2.59	6.80	0.009
	2	47	11.00	129.4	-2.59		
4WAYINDC	1	96	11.00	153.2	-1.16	3.21	0.361
	2	99	12.00	164.2	0.22		
	3	83	12.00	176.2	1.54		
	4	46	12.00	153.6	-0.70		
SSH(Y/N)	0	94	11.50	161.0	-0.13	0.02	0.899
	1	229	12.00	162.4	0.13		

* = p-value adjusted for ties

Table C-26 Chi-square tests of association between the holding of general meetings (GENERAL) and the independent categorical variables

STD RESIDUALS: ROWS: GENERAL	COLUMNS: OSEALIST	
	NO	YES
Not done or minor importance	-0.24	0.50
Moderate importance	0.03	-0.06
High importance	0.07	-0.15

CHI-SQUARE = 0.338 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: GENERAL	COLUMNS: TFCAT	
	HIGH	LOW
Not done or minor importance	-0.40	0.54
Moderate importance	-0.06	0.08
High importance	0.22	-0.29

CHI-SQUARE = 0.594 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: GENERAL	COLUMNS: ALPHA	
	ALPHA	BETA
Not done or minor importance	-0.48	1.16
Moderate importance	0.12	-0.30
High importance	0.08	-0.19

CHI-SQUARE = 1.729 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: GENERAL	COLUMNS: 4WAYINDC			
	1	2	3	4
Not done or minor importance	-0.36	-0.47	-1.49	3.26
Moderate importance	0.03	-0.38	1.99	-2.20
High importance	0.12	0.54	-1.21	0.67

CHI-SQUARE = 24.375 WITH D.F. = 6 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS: ROWS: GENERAL	COLUMNS: SSH(Y/N)	
	NO	YES
Not done or minor importance	-0.57	0.37
Moderate importance	0.31	-0.20
High importance	-0.05	0.03

CHI-SQUARE = 0.604 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

Table C-27 : Chi-square tests of association between the holding of special meetings (SPECIAL) and the independent categorical variablesSTD RESIDUALS: ROWS: SPECIAL COLUMNS: OSEALIST

	NO	YES
Not done or minor importance	0.42	-0.90
Moderate importance	0.74	-1.56
High importance	-0.43	0.92

CHI-SQUARE = 4.978 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: SPECIAL COLUMNS: TFCAT

	HIGH	LOW
Not done or minor importance	0.12	-0.16
Moderate importance	-1.45	1.93
High importance	0.65	-0.86

CHI-SQUARE = 7.042 WITH D.F. = 2 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: SPECIAL COLUMNS: ALPHA

	ALPHA	BETA
	1	2
Not done or minor importance	-0.39	0.94
Moderate importance	-0.16	0.39
High importance	0.16	-0.38

CHI-SQUARE = 1.379 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: SPECIAL COLUMNS: 4WAYINDC

	1	2	3	4
Not done or minor importance	-1.45	1.00	-0.19	0.88
Moderate importance	0.52	-0.64	-0.51	0.89
High importance	0.09	0.07	0.28	-0.61

CHI-SQUARE = 6.108 WITH D.F. = 6 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: SPECIAL COLUMNS: SSH(Y/N)

	NO	YES
	0	1
Not done or minor importance	0.26	-0.17
Moderate importance	-0.20	0.13
High importance	0.04	-0.02

CHI-SQUARE = 0.156 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

Table C-28 Chi-square tests of association between the answering of telephone queries (TELEPHONE) and the independent categorical variables

STD RESIDUALS: ROWS: TELEPHONE COLUMNS: OSEALIST

	NO	YES
Not done or minor importance	0.33	-0.70
Moderate importance	0.87	-1.83
High importance	-0.89	1.88

CHI-SQUARE = 9.035 WITH D.F. = 2 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS: ROWS: TELEPHONE COLUMNS: TFCAT

	HIGH	LOW
	0	1
Not done or minor importance	-1.31	1.74
Moderate importance	-0.53	0.70
High importance	1.02	-1.36

CHI-SQUARE = 8.401 WITH D.F. = 2 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS: ROWS: TELEPHONE COLUMNS: ALPHA

	ALPHA	BETA
	1	2
Not done or minor importance	-0.69	1.69
Moderate importance	-0.22	0.53
High importance	0.49	-1.19

CHI-SQUARE = 5.296 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: TELEPHONE COLUMNS: 4WAYINDC

	1	2	3	4
Not done or minor importance	0.58	-0.50	0.75	-1.12
Moderate importance	-0.32	0.30	0.25	-0.32
High importance	0.03	-0.05	-0.54	0.76

CHI-SQUARE = 3.631 WITH D.F. = 6 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: TELEPHONE COLUMNS: SSH(Y/N)

	NO	YES
	0	1
Not done or minor importance	-1.02	0.66
Moderate importance	0.45	-0.29
High importance	0.06	-0.04

CHI-SQUARE = 1.762 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

Table C-29 Chi-square tests of association between providing feedback on analysts' reports (FEEDBACK) and the independent categorical variables

STD RESIDUALS: ROWS: FEEDBACK COLUMNS: OSEALIST

	NO	YES
	0	1
Not done or minor importance	0.38	-0.81
Moderate importance	-0.39	0.82
High importance	0.15	-0.31

CHI-SQUARE = 1.754 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: FEEDBACK COLUMNS: TFCAT

	HIGH	LOW
	0	1
Not done or minor importance	-0.45	0.59
Moderate importance	1.17	-1.56
High importance	-1.02	1.35

CHI-SQUARE = 7.193 WITH D.F. = 2 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: FEEDBACK COLUMNS: ALPHA

	ALPHA	BETA
	1	2
Not done or minor importance	-0.24	0.58
Moderate importance	0.12	-0.30
High importance	0.05	-0.12

CHI-SQUARE = 0.507 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: FEEDBACK COLUMNS: 4WAYINDC

	1	2	3	4
Not done or minor importance	1.58	0.55	-1.83	-0.65
Moderate importance	-0.16	-0.66	0.54	0.47
High importance	-1.11	0.33	0.86	-0.02

CHI-SQUARE = 9.645 WITH D.F. = 6 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: FEEDBACK COLUMNS: SSH(Y/N)

	NO	YES
	0	1
Not done or minor importance	0.87	-0.56
Moderate importance	1.19	-0.76
High importance	-2.10	1.35

CHI-SQUARE = 9.269 WITH D.F. = 2 (SIGNIFICANT AT THE .01 LEVEL)

Table C-30 Chi-square tests of association between mailing information (MAILING) and the independent categorical variables

STD RESIDUALS: ROWS: MAILING	COLUMNS: OSEALIST	
	NO	YES
	0	1
Not done or minor importance	0.81	-1.72
Moderate importance	-0.52	1.10
High importance	-0.40	0.85

CHI-SQUARE = 5.986 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: MAILING	COLUMNS: TFCAT	
	HIGH	LOW
	0	1
Not done or minor importance	-1.08	1.43
Moderate importance	0.65	-0.87
High importance	0.59	-0.79

CHI-SQUARE = 5.366 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: MAILING	COLUMNS: ALPHA	
	ALPHA	BETA
	1	2
Not done or minor importance	-0.61	1.48
Moderate importance	0.02	-0.04
High importance	0.80	-1.94

CHI-SQUARE = 6.952 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: MAILING	COLUMNS: 4WAYINDC			
	1	2	3	4
Not done or minor importance	1.47	-0.02	-1.19	-0.51
Moderate importance	-1.16	0.45	0.53	0.30
High importance	-0.44	-0.58	0.89	0.29

CHI-SQUARE = 7.161 WITH D.F. = 6 (NOT SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: MAILING	COLUMNS: SSH(Y/N)	
	NO	YES
	0	1
Not done or minor importance	-0.86	0.55
Moderate importance	1.26	-0.81
High importance	-0.53	0.34

CHI-SQUARE = 3.686 WITH D.F. = 2 (NOT SIGNIFICANT AT THE .05 LEVEL)

Table C-31 Kruskal-Wallis tests of association between importance of holding general meetings and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	27	184.7	151.1	-0.55		
	3	134	285.1	163.3	0.47		
	4	159	264.9	159.7	-0.15	0.42	0.811
MARKETABILITY							
LISTINGS	2	27	0.00E+00	167.8	0.43		
	3	134	0.00E+00	159.9	-0.10		
	4	159	0.00E+00	159.8	-0.14	0.41	0.816
TRADFREQ	2	26	0.00E+00	171.8	0.74		
	3	132	0.00E+00	159.0	0.01		
	4	159	0.00E+00	156.9	-0.42	0.81	0.667
RISK							
BETA	2	26	1.040	151.6	-0.05		
	3	124	1.045	157.4	0.80		
	4	154	1.010	148.7	-0.76	0.67	0.716
VARIAB	2	26	33.50	145.1	-0.45		
	3	124	33.40	156.4	0.64		
	4	154	33.45	150.6	-0.38	0.50	0.778
SPECRISK	2	26	24.04	146.8	-0.35		
	3	124	24.10	155.4	0.47		
	4	154	23.75	151.2	-0.27	0.28	0.871
PROFITABILITY							
707ROCE	2	23	13.34	137.2	-0.92		
	3	132	16.36	152.0	-0.26		
	4	151	17.11	157.3	0.74	1.10	0.577
711TPM	2	22	19.48	190.7	2.63		
	3	128	11.43	139.9	-1.01		
	4	140	12.11	143.5	-0.39	7.03	0.030
716PTPM	2	23	11.890	194.8	2.40		
	3	129	8.030	148.6	-0.67		
	4	152	8.090	149.4	-0.61	5.78	0.056
703ROSC	2	22	13.49	160.2	0.20		
	3	134	11.90	148.2	-1.41		
	4	156	13.30	163.1	1.29	2.01	0.367

Table C-31 (continued) Kruskal-Wallis tests of association between importance of holding general meetings and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	23	32.08	167.0	0.73	0.55	0.758
	3	133	30.83	152.1	-0.33		
	4	151	29.95	153.7	-0.06		
732IGEAR	2	23	22.59	188.5	2.22	7.10	0.029
	3	129	19.11	154.9	0.86		
	4	147	15.86	139.6	-2.04		
733BR	2	23	0.5000	187.8	1.70	3.35	0.187
	3	134	0.4050	150.6	-1.08		
	4	156	0.4200	158.0	0.19		
TAKEOVER ACTIVITY							
TAKEOVER	2	27	0.00E+00	160.4	-0.01	0.40	0.820
	3	134	0.00E+00	159.3	-0.20		
	4	159	0.00E+00	161.5	0.20		
SHAREHOLDER DETAILS							
BFA%	2	26	0.6400	166.7	0.38	3.60	0.166
	3	134	0.2350	148.5	-1.89		
	4	159	0.5000	168.6	1.66		
TOTSSH	2	26	22.04	190.3	1.75	3.18	0.204
	3	134	11.45	156.0	-0.66		
	4	159	12.19	158.4	-0.31		
NOOFSSH	2	26	1.500	175.4	0.89	0.86	0.650
	3	134	1.000	159.7	-0.06		
	4	159	1.000	157.8	-0.43		

KEY:
Coding of levels 2 = Not done and minor importance, 3 = Moderate importance, 4 = High importance)
* = p-value adjusted for ties

Table C-32 Kruskal-Wallis tests of association between importance of holding special meetings and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	13	207.4	156.5	-0.20		
	3	54	157.8	138.3	-2.00		
	4	255	318.8	166.7	1.94	4.17	0.125
MARKETABILITY							
LISTINGS	2	13	0.00E+00	145.5	-0.63		
	3	54	0.00E+00	147.5	-1.21		
	4	255	0.00E+00	165.3	1.42	4.46	0.108
TRADFREQ	2	12	0.00E+00	163.3	0.12		
	3	54	1.00E-01	184.2	2.11		
	4	253	0.00E+00	154.7	-2.01	6.18	0.046
RISK							
BETA	2	10	0.9050	121.8	-1.15		
	3	54	1.0200	159.8	0.57		
	4	242	1.0300	153.4	-0.04	1.55	0.460
VARIAB	2	10	32.15	114.4			
	3	54	35.90	176.4	2.09		
	4	242	33.10	150.0	-1.34	5.94	0.052
SPECRISK	2	10	21.60	132.4	-0.77		
	3	54	26.10	179.1	2.34		
	4	242	23.45	148.7	-1.86	5.81	0.055
PROFITABILITY							
707ROCE	2	11	20.78	182.1	1.03		
	3	52	16.58	150.3	-0.42		
	4	246	16.27	154.8	-0.08	1.16	0.560
711TPM	2	11	12.65	132.4	-0.58		
	3	48	10.99	142.6	-0.40		
	4	234	12.31	148.6	0.64	0.54	0.763
716PTPM	2	11	10.180	166.0	0.46		
	3	49	7.570	154.2	0.02		
	4	247	8.270	153.4	-0.23	0.21	0.899
703ROSC	2	11	16.10	186.8	1.07		
	3	53	11.80	155.4	-0.22		
	4	251	12.30	157.3	-0.28	1.16	0.561

Table C-32(cont) Kruskal-Wallis tests of association between importance of holding special meetings and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	11	15.85	78.2	-2.91	15.38	0.000
	3	52	22.57	128.7	-2.37		
	4	247	32.08	164.6	3.54		
732IGEAR	2	11	6.400	85.3	-2.56	6.89	0.032
	3	49	19.540	160.6	0.80		
	4	242	17.720	152.7	0.47		
733BR	2	11	0.2700	97.0	-2.27	10.46	0.006
	3	53	0.3000	134.5	-2.10		
	4	252	0.4500	166.2	2.99		
TAKEOVER ACTIVITY							
TAKEOVER	2	13	0.00E+00	156.0	-0.22	2.98	0.226
	3	54	0.00E+00	156.0	-0.48		
	4	255	0.00E+00	162.9	0.54		
SHAREHOLDER DETAILS							
BFA%	2	12	2.0250	196.7	1.36	2.12	0.346
	3	54	0.4800	165.7	0.41		
	4	255	0.3000	158.3	-1.01		
TOTSSH	2	12	7.750	153.4	-0.29	4.27	0.119
	3	54	20.520	184.5	2.04		
	4	255	11.920	156.4	-1.75		
NOOFSSH	2	12	1.000	152.2	-0.34	1.12	0.570
	3	54	2.000	172.5	1.00		
	4	255	1.000	159.0	-0.77		

KEY:

Coding of levels 2 = Not done and minor importance, 3 = Moderate importance, 4 = High importance)

* = p-value adjusted for ties

Table C-33 Kruskal-Wallis tests of association between importance of answering telephone queries and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	31	153.9	134.2	-1.72		
	3	124	208.9	150.2	-1.72		
	4	167	366.3	174.9	2.69	7.96	0.019
MARKETABILITY							
LISTINGS	2	31	0.00E+00	153.6	-0.49		
	3	124	0.00E+00	150.4	-1.69		
	4	167	0.00E+00	171.2	1.93	8.31	0.016
TRADFREQ	2	31	1.00E-01	195.8	2.28		
	3	123	0.00E+00	165.2	0.80		
	4	165	0.00E+00	149.4	-2.13	9.86	0.007
RISK							
BETA	2	30	0.9850	145.4	-0.56		
	3	117	1.0200	152.6	-0.22		
	4	160	1.0300	156.6	0.54	0.45	0.798
VARIAB	2	30	33.50	153.7	-0.02		
	3	117	33.30	153.7	-0.05		
	4	160	33.35	154.3	0.06	0.00	0.998
SPECRISK	2	30	24.40	168.4	0.94		
	3	117	24.00	151.1	-0.44		
	4	160	23.80	153.4	-0.13	0.92	0.630
PROFITABILITY							
707ROCE	2	30	17.79	162.1	0.49		
	3	121	17.30	161.3	1.07		
	4	157	15.42	147.9	-1.34	1.79	0.409
711TPM	2	29	12.94	151.0	0.30		
	3	114	11.85	143.4	-0.51		
	4	149	12.49	148.0	0.32	0.29	0.865
716PTPM	2	28	8.970	164.4	0.68		
	3	118	8.085	152.2	-0.20		
	4	160	8.015	152.5	-0.20	0.47	0.791
703ROSC	2	30	13.54	165.6	0.52		
	3	123	12.40	160.0	0.39		
	4	161	12.20	154.1	-0.69	0.56	0.755

Table C-33 (continued) Kruskal-Wallis tests of association between importance of answering telephone queries and independent continuous variables

GEARING							
731CGEAR	2	30	30.30	157.6	0.17		
	3	121	28.66	150.3	-0.74		
	4	158	31.39	158.1	0.62	0.54	0.762
732IGEAR	2	29	17.54	157.2	0.41		
	3	116	16.92	142.4	-1.36		
	4	156	18.06	156.3	1.09	1.86	0.394
733BR	2	30	0.4300	146.3	-0.74		
	3	123	0.3900	153.2	-0.75		
	4	162	0.4500	163.8	1.17	1.51	0.471
TAKEOVER ACTIVITY							
TAKEOVER	2	31	0.00E+00	165.8	0.27		
	3	124	0.00E+00	162.0	0.08		
	4	167	0.00E+00	160.3	-0.23	0.90	0.638
SHAREHOLDER DETAILS							
BFA%	2	31	0.8000	176.6	0.98		
	3	124	0.3050	161.9	0.13		
	4	166	0.2900	157.4	-0.71	1.13	0.568
TOTSSH	2	31	22.70	200.1	2.47		
	3	124	13.30	156.7	-0.66		
	4	166	11.03	156.9	-0.82	6.25	0.044
NOOFSSH	2	31	2.000	201.6	2.57		
	3	124	1.000	161.8	0.13		
	4	166	1.000	152.8	-1.64	7.64	0.022

KEY:

Coding of levels 2 = Not done and minor importance, 3 = Moderate importance, 4 = High importance)

* = p-value adjusted for ties

Table C-34 Kruskal-Wallis tests of association between importance of providing feedback on analysts' reports and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	70	290.0	164.9	0.45		
	3	145	358.3	171.8	1.99		
	4	105	160.2	142.0	-2.50	6.52	0.039
MARKETABILITY							
LISTINGS	2	70	0.00E+00	155.6	-0.50		
	3	145	0.00E+00	165.0	0.79		
	4	105	0.00E+00	157.5	-0.40	1.42	0.493
TRADFREQ	2	69	0.00E+00	170.2	1.15		
	3	144	0.00E+00	146.4	-2.24		
	4	104	0.00E+00	169.1	1.37	6.78	0.034
RISK							
BETA	2	67	1.020	142.9	-1.06		
	3	136	1.030	153.8	0.14		
	4	102	1.030	158.6	0.79	1.31	0.519
VARIAB	2	67	32.70	141.1	-1.25		
	3	136	32.35	140.5	-2.21		
	4	102	36.08	177.4	3.43	11.76	0.003
SPECRISK	2	67	24.00	142.2	-1.13		
	3	136	22.05	137.4	-2.77		
	4	102	26.75	180.9	3.91	15.43	0.000
PROFITABILITY							
707ROCE	2	67	17.81	163.1	1.00		
	3	138	15.99	149.1	-0.79		
	4	101	16.87	153.1	-0.05	1.13	0.569
711TPM	2	63	11.89	145.7	0.02		
	3	130	12.85	144.0	-0.28		
	4	97	11.95	147.4	0.28	0.09	0.954
716PTPM	2	66	8.445	152.6	0.01		
	3	138	8.100	148.4	-0.74		
	4	100	8.445	158.1	0.78	0.71	0.701
703ROSC	2	68	13.55	168.9	1.28		
	3	143	11.90	149.9	-1.19		
	4	101	12.40	157.5	0.14	2.07	0.356

Table C-34 Kruskal-Wallis tests of association between importance of providing feedback on analysts' reports and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	67	28.72	136.5	-1.82	4.46	0.108
	3	138	32.00	164.1	1.81		
	4	102	31.32	151.8	-0.31		
732IGEAR	2	65	17.26	142.0	-0.84	0.83	0.662
	3	134	18.99	153.9	0.70		
	4	100	17.16	150.0	-0.00		
733BR	2	68	0.4150	151.4	-0.58	0.42	0.811
	3	143	0.4100	160.0	0.54		
	4	102	0.4550	156.5	-0.07		
TAKEOVER ACTIVITY							
TAKEOVER	2	70	0.00E+00	159.0	-0.15	4.88	0.088
	3	145	0.00E+00	164.5	0.70		
	4	105	0.00E+00	156.0	-0.61		
SHAREHOLDER DETAILS							
BFA%	2	69	0.4600	163.5	0.36	11.08	0.004
	3	145	0.2000	142.6	-3.08		
	4	105	1.1400	181.7	2.95		
TOTSSH	2	69	11.80	158.9	-0.11	5.00	0.083
	3	145	11.49	149.4	-1.88		
	4	105	14.90	175.4	2.09		
NOOFSSH	2	69	1.000	157.7	-0.23	1.71	0.425
	3	145	1.000	154.4	-0.99		
	4	105	2.000	169.2	1.25		

KEY:

Coding of levels 2 = Not done and minor importance, 3 = Moderate importance, 4 = High importance)

* = p-value adjusted for ties

Table C-35 Kruskal-Wallis tests of association between importance of mailing information to analysts and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	128	166.9	140.8	-3.37		
	3	125	366.3	179.1	2.52		
	4	71	322.3	172.5	1.02	11.59	0.003
MARKETABILITY							
LISTINGS	2	128	0.00E+00	151.5	-1.71		
	3	125	0.00E+00	169.8	1.11		
	4	71	0.00E+00	169.5	0.72	6.50	0.039
TRADFREQ	2	128	0.00E+00	173.8	2.01		
	3	124	0.00E+00	153.8	-1.10		
	4	69	0.00E+00	150.2	-1.09	5.57	0.062
RISK							
BETA	2	126	1.000	145.9	-1.41		
	3	116	1.030	157.1	0.40		
	4	66	1.045	166.3	1.22	2.44	0.296
VARIAB	2	126	32.85	152.3	-0.37		
	3	116	33.85	153.0	-0.24		
	4	66	34.00	161.5	0.72	0.52	0.772
SPECRISK	2	126	24.05	158.7	0.69		
	3	116	23.75	148.3	-0.94		
	4	66	24.20	157.3	0.29	0.90	0.638
PROFITABILITY							
707ROCE	2	124	16.19	160.5	0.80		
	3	118	16.36	150.1	-0.82		
	4	68	16.90	155.6	0.01	0.81	0.667
711TPM	2	118	11.78	141.9	-0.93		
	3	112	13.06	152.3	0.76		
	4	64	11.98	149.5	0.21	0.90	0.638
716PTPM	2	123	8.350	149.2	-0.84		
	3	117	8.090	156.9	0.36		
	4	68	8.300	160.0	0.57	0.77	0.682
703ROSC	2	126	13.20	162.7	0.67		
	3	123	11.90	151.0	-1.16		
	4	67	12.90	164.3	0.59	1.37	0.505

Table C-35 (continued) Kruskal-Wallis tests of association between importance of mailing information to analysts and independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	124	30.51	158.6	0.41	0.57	0.753
	3	119	29.27	157.5	0.22		
	4	68	31.06	148.8	-0.75		
732IGEAR	2	121	18.19	156.1	0.67	0.60	0.739
	3	114	18.06	151.2	-0.12		
	4	68	16.38	146.0	-0.65		
733BR	2	126	0.4300	161.4	0.37	0.14	0.932
	3	123	0.4000	157.4	-0.25		
	4	68	0.4800	157.6	-0.15		
TAKEOVER ACTIVITY							
TAKEOVER	2	128	0.00E+00	165.4	0.44	2.25	0.326
	3	125	0.00E+00	161.7	-0.12		
	4	71	0.00E+00	158.8	-0.38		
BFA%	2	128	0.5000	168.8	1.05	1.91	0.384
	3	125	0.2000	153.1	-1.36		
	4	70	0.3200	165.6	0.36		
TOTSSH	2	128	15.060	172.2	1.58	3.54	0.171
	3	125	9.200	150.5	-1.76		
	4	70	13.930	164.0	0.20		
NOOFSSH	2	128	2.000	179.8	2.78	9.96	0.007
	3	125	1.000	142.8	-2.93		
	4	70	2.000	163.6	0.16		

KEY:

Coding of levels 2 = Not done and minor importance, 3 = Moderate importance, 4 = High importance)

* = p-value adjusted for ties

Table C-36 Stepwise regression of number of surveys in past 12 months (SURVEYS(A))

STEPWISE REGRESSION OF SQRT(SURVEYS(A)) ON 17 PREDICTORS, WITH N = 114

N(CASES WITH MISSING OBS.) = 211 N(ALL CASES) = 325

STEP	1	2	3	4	5
CONSTANT	1.343	1.273	1.231	1.269	1.311
LOGLIST	0.32	0.30	0.31	0.34	0.36
T-RATIO	2.86	2.73	2.92	3.19	3.39
716PTPM		0.0078	0.0067	0.0050	
T-RATIO		2.72	2.34	1.68	
707ROCE			0.0029	0.0050	0.0059
T-RATIO			2.01	2.84	3.51
731CGEAR				-0.00164	-0.00204
T-RATIO				-2.03	-2.61
S	0.317	0.309	0.305	0.300	0.303
R-SQ	6.81	12.62	15.73	18.81	16.71

The regression equation is

$$\text{SQRT(SURVEYS(A))} = 1.30 + 0.330 \text{ LOGLIST} + 0.00511 \text{ 716PTPM} + 0.00482 \text{ 707ROCE} - 0.00172 \text{ 731CGEAR}$$

129 cases used 196 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	1.29946	0.04837	26.87	0.000
LOGLIST	0.3299	0.1056	3.12	0.002
716PTPM	0.005112	0.002994	1.71	0.090
707ROCE	0.004816	0.001795	2.68	0.008
731CGEAR	-0.0017202	0.0008267	-2.08	0.040

s = 0.3102 R-sq = 16.4% R-sq(adj) = 13.7%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	2.33778	0.58445	6.07	0.000
Error	124	11.93098	0.09622		
Total	128	14.26876			
SOURCE	DF	SEQ SS			
LOGLIST	1	0.81952			
716PTPM	1	0.78280			
707ROCE	1	0.31891			
731CGEAR	1	0.41655			

Table C-38 Stepwise regression of number of surveys in past five years (SURVEYS)

STEPWISE REGRESSION OF LOGT(SURVEYS) ON 17 PREDICTORS, WITH N = 112

N(CASES WITH MISSING OBS.) = 213 N(ALL CASES) = 325

STEP	1
CONSTANT	0.4643
LOGLIST	0.265
T-RATIO	2.87
S	0.247
R-SQ	6.99

The regression equation is

$$\text{LOGT(SURVEYS)} = 0.470 + 0.261 \text{ LOGLIST}$$

133 cases used 192 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	0.46952	0.02468	19.03	0.000
LOGLIST	0.26096	0.08436	3.09	0.002

$s = 0.2485$ $R\text{-sq} = 6.8\%$ $R\text{-sq(adj)} = 6.1\%$

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	0.59095	0.59095	9.57	0.002
Error	131	8.09063	0.06176		
Total	132	8.68158			

Table C-39 Stepwise regression of index of investor relations activity (ACTIVITY)

STEPWISE REGRESSION OF ACTIVITY ON 17 PREDICTORS, WITH N = 278 N(CASES WITH MISSING OBS.) = 47 N(ALL CASES) = 325		
STEP	1	2
CONSTANT	11.75	14.43
LOGTRADF	-3.1	-3.1
T-RATIO	-2.39	-2.38
SQRTIG		-0.168
T-RATIO		-2.26
S	2.56	2.54
R-SQ	2.02	3.80

The regression equation is
ACTIVITY = 14.5 - 3.19 LOGTRADF - 0.173 SQRTIG

301 cases used 24 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	14.546	1.180	12.32	0.000
LOGTRADF	-3.187	1.282	-2.49	0.013
SQRTIG	-0.17281	0.07303	-2.37	0.019

s = 2.550 R-sq = 3.8% R-sq(adj) = 3.2%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	77.077	38.539	5.93	0.003
Error	298	1937.661	6.502		
Total	300	2014.738			

Table C-40 Stepwise regression of surveys in past 12m (SURVEYS(A)) with critical F value reduced to 2

STEPWISE REGRESSION OF SQRT(SURVEYS(A)) ON 17 PREDICTORS, WITH N = 114 N(CASES WITH MISSING OBS.) = 211 N(ALL CASES) = 325					
STEP	1	2	3	4	5
CONSTANT	1.343	1.273	1.231	1.269	1.247
LOGLIST	0.32	0.30	0.31	0.34	0.37
T-RATIO	2.86	2.73	2.92	3.19	3.49
716PTPM		0.0078	0.0067	0.0050	0.0048
T-RATIO		2.72	2.34	1.68	1.64
707ROCE			0.0029	0.0050	0.0052
T-RATIO			2.01	2.84	2.98
731CGEAR				-0.00164	-0.00167
T-RATIO				-2.03	-2.09
LOGTRADF					0.50
T-RATIO					1.81
S	0.317	0.309	0.305	0.300	0.297
R-SQ	6.81	12.62	15.73	18.81	21.21
The regression equation is SQRT(SURVEYS(A)) = 1.28 + 0.339 LOGLIST + 0.00410 716PTPM + 0.00499 707ROCE - 0.00173 731CGEAR + 0.427 LOGTRADF					
127 cases used 198 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	1.28369	0.04774	26.89	0.000	
LOGLIST	0.3392	0.1035	3.28	0.001	
716ADJ	0.004100	0.002904	1.41	0.161	
707ROCE	0.004988	0.001733	2.88	0.005	
731CGEAR	-0.0017255	0.0007970	-2.16	0.032	
LOGTRADF	0.4274	0.2732	1.56	0.120	
s = 0.2989 R-sq = 17.3% R-sq(adj) = 13.9%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	5	2.26772	0.45354	5.08	0.000
Error	121	10.81178	0.08935		
Total	126	13.07950			

Table C-41 Stepwise regression of surveys more than 12m and up to 5 years ago (SURVEYS(B)) with critical F value reduced to 2

STEPWISE REGRESSION OF LOGT(SURVEYS(B)) ON 17 PREDICTORS,					
WITH N = 112					
N(CASES WITH MISSING OBS.) = 213 N(ALL CASES) = 325					
STEP	1				
CONSTANT	0.2964				
LOGLIST	0.20				
T-RATIO	1.62				
S	0.323				
R-SQ	2.34				
The regression equation is					
LOGT(SURVEYS(B)) = 0.289 + 0.169 LOGLIST					
133 cases used 192 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	0.28945	0.03271	8.85	0.000	
LOGLIST	0.1689	0.1118	1.51	0.133	
s = 0.3294 R-sq = 1.7% R-sq(adj) = 1.0%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	1	0.2476	0.2476	2.28	0.133
Error	131	14.2141	0.1085		
Total	132	14.4617			

Table C-42 Multiple regression of number of surveys in past 12m (SURVEYS(A)) using all independent variables

The regression equation is

$$\begin{aligned} \text{SQRT}(\text{SURVEYS}(\text{A})) = & 1.04 - 0.0343 \text{ LOGTAVMV} + 0.352 \text{ LOGLIST} \\ & + 0.639 \text{ LOGTRADF} + 0.176 \text{ BETA} + 0.115 \text{ SQRTVAR} \\ & - 0.994 \text{ LOGTSRSK} + 0.00519 \text{ 707ROCE} \\ & - 0.00564 \text{ 711TPM} + 0.0133 \text{ 716PTPM} \\ & - 0.00212 \text{ 703ROSC} - 0.00089 \text{ 731CGEAR} \\ & - 0.0091 \text{ SQRTIG} + 0.346 \text{ SQRTBR} - 0.469 \text{ LOGTAKEO} \\ & + 0.024 \text{ NEGRBFA\%} + 0.0192 \text{ SQRTOTSH} \\ & - 0.0392 \text{ NOOFSSH} + 0.0465 \text{ INDC2} \\ & + 0.012 \text{ INDC3} - 0.048 \text{ INDC4} \end{aligned}$$

114 cases used 211 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	1.0436	0.8158	1.28	0.204
LOGTAVMV	-0.03428	0.09326	-0.37	0.714
LOGLIST	0.3516	0.1659	2.12	0.037
LOGTRADF	0.6394	0.3601	1.78	0.079
BETA	0.1761	0.3295	0.53	0.594
SQRTVAR	0.1147	0.2178	0.53	0.600
LOGTSRSK	-0.9940	0.9899	-1.00	0.318
707ROCE	0.005194	0.002521	2.06	0.042
711TPM	-0.005643	0.005767	-0.98	0.330
716PTPM	0.013307	0.006972	1.91	0.059
703ROSC	-0.002119	0.003243	-0.65	0.515
731CGEAR	-0.000895	0.001020	-0.88	0.383
SQRTIG	-0.00913	0.01372	-0.67	0.507
SQRTBR	0.3458	0.2333	1.48	0.142
LOGTAKEO	-0.4685	0.4128	-1.14	0.259
NEGRBFA%	0.0243	0.1037	0.23	0.815
SQRTOTSH	0.01922	0.03427	0.56	0.576
NOOFSSH	-0.03922	0.04805	-0.82	0.417
INDC2	0.04653	0.09218	0.50	0.615
INDC3	0.0121	0.1024	0.12	0.906
INDC4	-0.0477	0.1896	-0.25	0.802

s = 0.3057 R-sq = 28.2% R-sq(adj) = 12.8%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	20	3.41483	0.17074	1.83	0.028
Error	93	8.68906	0.09343		
Total	113	12.10389			

NOTE: INDC2, INDC3 & INDC4 are dummy variables denoting industrial classification, INDC1 is incorporated in the constant term

Appendix D Tables of results on company meetings with analysts and fund managers

- D-1 Does the Non-executive Chairman attend meetings?
- D-2 Does the Chief Executive attend meetings?
- D-3 Does the Managing Director attend meetings?
- D-4 Does the Finance Director attend meetings?
- D-5 Does the Marketing Director attend meetings?
- D-6 Does the Company Secretary attend meetings?
- D-7 Does the Chief Accountant attend meetings?
- D-8 Does the Investor Relations Officer attend meetings?
- D-9 Does the Head of Public Relations attend meetings?
- D-10 Does the External Financial Public Relations consultant attend meetings?
- D-11 Does the company keep a record of general (or group) meetings?
- D-12 Does the company keep a record of special (or individual) meetings?
- D-13 Number of general meetings held in the past 12 months
- D-14 Number of special meetings held in the past 12 months
- D-15 Number of sell-side analysts on circulation list for invitation to meetings
- D-16 Number of buy-side analysts and fund managers on circulation list for invitation to meetings
- D-17 Number of sell-side analysts who have attended meetings in past 12 months
- D-18 Number of buy-side analysts and fund managers who have attended meetings in past 12 months
- D-19 Number of stockbroking firms that have sent representatives to meetings in the past 12 months
- D-20 Number of institutional investor organisations that have sent representatives in the past 12 months
- D-21 Explanation of past performance
- D-22 Explanation of accounting policies
- D-23 Additional breakdown of published figures by line of business
- D-24 Additional breakdown of published figures by geographical area
- D-25 Performance of recent acquisitions

- D-26 Outcome of completed research and development projects
- D-27 Explanation of structure of balance sheet and gearing
- D-28 First announcement of major new projects and developments
- D-29 Further explanation of major new projects and developments that have already been announced
- D-30 First announcement of new products
- D-31 Further explanation of new products that have already been announced
- D-32 First announcement of new contracts
- D-33 Further explanation of new contracts that have already been announced
- D-34 Current state of order book
- D-35 Prospects of current research and development projects
- D-36 First announcement of current research and development projects
- D-37 Further explanation of new research and development projects that have already been announced
- D-38 First announcement of profits forecast
- D-39 Further explanation of profits forecast that has already been made
- D-40 Company strategy in the short term
- D-41 Company strategy in the long term
- D-42 Company strategy for particular segments of the business
- D-43 Company strategy on future acquisitions
- D-44 Company strategy on future disposals of segments of the business
- D-45 Long term investment plans
- D-46 Cash flow situation
- D-47 Dividend policy
- D-48 Descriptive statistics for details of meetings with analysts
- D-49 Pearson and Spearman correlation between quantitative data on analysts' meetings
- D-50 Pearson correlation between quantitative data on analysts' meetings and continuous independent variables
- D-51 Spearman correlation between quantitative data on analysts' meetings and continuous independent variables

- D-52 Kruskal-Wallis tests of association between the number of general meetings in the past 12m. and the independent categorical variables
- D-53 Kruskal-Wallis tests of association between the number of special meetings in the past 12m. and the independent categorical variables
- D-54 Kruskal-Wallis tests of association between the number of sell-side analysts on circulation list for invitation to meetings and the independent categorical variables
- D-55 Kruskal-Wallis tests of association between the number of buy-side analysts and fund managers on circulation list for invitation to meetings and the independent categorical variables
- D-56 Kruskal-Wallis tests of association between the number of sell-side analysts attending meetings in the past 12m. and the independent categorical variables
- D-57 Kruskal-Wallis tests of association between the number of buy-side analysts analysts and fund managers attending meetings in the past 12m. and the independent categorical variables
- D-58 Kruskal-Wallis tests of association between the number of stock-broking firms attending meetings in the past 12m. and the independent categorical variables
- D-59 Kruskal-Wallis tests of association between the number of institutional investor organisations attending meetings in the past 12m. and the independent categorical variables
- D-60 Stepwise regression of number of general meetings (GENERALS)
- D-61 Multiple regression of number of general meetings (GENERALS) using variables identified by stepwise regression
- D-62 Stepwise regression of number of special meetings (SPECIALS)
- D-63 Multiple regression of number of special meetings (SPECIALS) using variables identified by stepwise regression
- D-64 Stepwise regression of number of sell-side analysts on circulation list
- D-65 Multiple regression of the number of sell-side analysts on circulation list (LIST(A)) using variables identified by stepwise regression

- D-66 Stepwise regression of number of buy-side analysts (LIST(B)) on circulation list
- D-67 Multiple regression of number of buy-side analysts on circulation list (LIST(B)) using variables identified in stepwise regression
- D-68 Stepwise regression of number of sell-side analysts attending meetings (ANALYST(A))
- D-69 Multiple regression of number of sell-side analysts attending meetings in past 12m (ANALYST(A)) using variables identified in stepwise regression
- D-70 Stepwise regression of number of buy-side analysts attending meetings (ANALYST(B))
- D-71 Multiple regression of number of buy-side analysts attending meetings in past 12m (ANALYST(B)) using variable identified by stepwise regression
- D-72 Stepwise regression of number of stock-broking firms represented at meetings (FIRMS)
- D-73 Multiple regression of number of stockbroking firms represented at meetings (FIRMS) using variables identified by stepwise regression
- D-74 Stepwise regression of number of institutional investor organisations represented at meetings (INVESTORS)
- D-75 Multiple regression of number of insitutional investor organisations represented at meetings (INVESTORS) using variables identified by stepwise regression
- D-76 Stepwise regression of number of special meetings (SPECIALS) with critical F value reduced to 2
- D-77 Stepwise regression of number of sell-side analysts on circulation list (LIST(A)) with critical F value reduced to 2
- D-78 Stepwise regression of number of sell-side analysts attending meetings (ANALYSTS(A)) with critical F value reduced to 2
- D-79 Stepwise regression of number of buy-side analysts attending meetings (ANALYST(B)) with critical F value reduced to 2
- D-80 Stepwise regression of number of stock-broking firms represented at meetings (FIRMS) with critical F value reduced to 2

D-81 Stepwise regression of number of institutional investor organisations represented at meetings (INVESTORS) with critical F value reduced to 2

Table D-1 Does the Non-executive Chairman attend meetings?

	COUNT	PERCENT
No	66	19.76
Yes	71	21.26
Not applicable	197	58.98
N=	334	
*=	3	

Table D-2 Does the Chief Executive attend meetings?

	COUNT	PERCENT
No	10	2.99
Yes	280	83.83
Not applicable	44	13.17
N=	334	
*=	3	

Table D-3 Does the Managing Director attend meetings?

	COUNT	PERCENT
No	9	2.69
Yes	120	35.93
Not applicable	205	61.38
N=	334	
=	3	

Table D-4 Does the Finance Director attend meetings?

	COUNT	PERCENT
No	7	2.10
Yes	320	95.81
Not applicable	7	2.10
N=	334	
*=	3	

Table D-5 Does the Marketing Director attend meetings?

	COUNT	PERCENT
No	37	11.08
Yes	28	8.38
Not applicable	269	80.54
N=	334	
*=	3	

Table D-6 Does the Company Secretary attend meetings?

	COUNT	PERCENT
No	267	79.94
Yes	47	14.07
Not applicable	20	5.99
N=	334	
*=	3	

Table D-7 Does the Chief Accountant attend meetings?

	COUNT	PERCENT
No	192	57.49
Yes	33	9.88
Not applicable	109	32.63
N=	334	
*=	3	

Table D-8 Does the Investor Relations Officer attend meetings?

	COUNT	PERCENT
No	17	5.09
Yes	91	27.25
Not applicable	226	67.66
N=	334	
*=	3	

Table D-9 Does the Head of Public Relations attend meetings?

	COUNT	PERCENT
No	61	18.26
Yes	71	21.26
Not applicable	202	60.48
N=	334	
*=	3	

Table D-10 Does the External Financial Public Relations consultant attend meetings?

	COUNT	PERCENT
No	161	48.20
Yes	104	31.14
Not applicable	69	20.66
N=	334	
*=	3	

Table D-11 Does the company keep a record of general (or group) meetings?

	COUNT	PERCENT
No	135	41.16
Yes	188	57.32
Not applicable	4	1.22
Both yes and no	1	0.30
N=	328	
*=	9	

Table D-12 Does the company keep a record of special (or individual) meetings?

	COUNT	PERCENT
No	164	50.31
Yes	160	49.08
Not applicable	1	0.31
Both yes and no	1	0.31
N=	326	
*=	11	

Table D-13 Number of general meetings held in the past 12 months

	COUNT	PERCENT
0-5	189	63.85
6-10	73	24.66
11-20	23	7.77
21-30	8	2.70
31-50	3	1.01
N=	296	
*=	41	
MEAN 6.220	MEDIAN 4.000	

Table D-14 Number of special meetings held in the past 12 months

	COUNT	PERCENT
0-5	38	13.57
6-10	58	20.71
11-20	74	26.43
21-30	37	13.21
31-50	53	18.93
51-100	17	6.07
101-125	3	1.07
N=	280	
*=	57	
MEAN 24.69	MEDIAN 20.00	

Table D-15 Number of sell-side analysts on circulation list for invitation to meetings

	COUNT	PERCENT
0-10	56	20.74
11-20	81	30.00
21-30	59	21.85
31-40	33	12.22
41-50	20	7.41
51-100	20	7.41
101-120	1	0.37
N=	270	
*=	67	
MEAN 26.50	MEDIAN 20.00	

Table D-16 Number of buy-side analysts and fund managers on circulation list for invitation to meetings

	COUNT	PERCENT
0-10	46	17.36
11-20	57	21.51
21-30	40	15.09
31-40	40	15.09
41-50	21	7.92
51-100	33	12.45
101-150	14	5.28
151-300	9	3.40
301-700	5	1.89
N=	265	
*=	72	
MEAN 53.45	MEDIAN 30.00	

Table D-17 Number of sell-side analysts who have attended meetings in past 12 months

	COUNT	PERCENT
0-10	67	24.19
11-20	94	33.94
21-30	51	18.41
31-40	41	14.80
41-50	8	2.89
51-100	14	5.05
101-150	2	0.72
N=	277	
*=	60	
MEAN 23.96	MEDIAN 20.00	

Table D-18 Number of buy-side analysts and fund managers who have attended meetings in past 12 months

	COUNT	PERCENT
0-10	59	21.38
11-20	65	23.55
21-30	50	18.12
31-40	17	6.16
41-50	25	9.06
51-100	43	15.58
101-150	9	3.26
151-300	6	2.17
301-450	2	0.72
N=	276	
*=	61	
MEAN 42.15	MEDIAN 25.00	

Table D-19 Number of stockbroking firms that have sent representatives to meetings in the past 12 months

	COUNT	PERCENT
0-10	98	33.91
11-20	107	37.02
21-30	57	19.72
31-40	17	5.88
41-50	6	2.08
51-88	4	1.38
N=	289	
*=	48	
MEAN 17.779	MEDIAN 15.000	

Table D-20 Number of institutional investor organisations that have sent representatives in the past 12 months

	COUNT	PERCENT
0-10	71	26.01
11-20	74	27.11
21-30	48	17.58
31-40	26	9.52
41-50	23	8.42
51-100	22	8.06
101-250	9	3.30
N=	273	
*=	64	
MEAN 30.30	MEDIAN 20.00	

Table D-21 Explanation of past performance

		COUNT	PERCENT
Not applicable	0	4	1.20
Not at all	1	3	0.90
Minor importance	2	8	2.40
Moderate importance	3	47	14.11
High importance	4	271	81.38
	N=	333	
	*=	4	
MEAN 3.7357	MEDIAN 4.0000		

Table D-22 Explanation of accounting policies

		COUNT	PERCENT
Not applicable	0	10	2.99
Not at all	1	12	3.59
Minor importance	2	123	36.83
Moderate importance	3	120	35.93
High importance	4	69	20.66
	N=	334	
	*=	3	
MEAN 2.6766	MEDIAN 3.0000		

Table D-23 Additional breakdown of published figures by line of business

		COUNT	PERCENT
Not applicable	0	21	6.36
Not at all	1	62	18.79
Minor importance	2	40	12.12
Moderate importance	3	98	29.70
High importance	4	109	33.03
	N=	330	
	*=	7	
MEAN 2.6424	MEDIAN 3.0000		

Table D-24 Additional breakdown of published figures by geographical area

		COUNT	PERCENT
Not applicable	0	48	14.55
Not at all	1	87	26.36
Minor importance	2	73	22.12
Moderate importance	3	68	20.61
High importance	4	54	16.36
	N=	330	
	*=	7	
MEAN 1.9788	MEDIAN 2.0000		

Table D-25 Performance of recent acquisitions

		COUNT	PERCENT
Not applicable	0	51	15.45
Not at all	1	22	6.67
Minor importance	2	48	14.55
Moderate importance	3	111	33.64
High importance	4	98	29.70
	N=	330	
	*=	7	
MEAN 2.5545	MEDIAN 3.0000		

Table D-26 Outcome of completed research and development projects

		COUNT	PERCENT
Not applicable	0	133	40.55
Not at all	1	72	21.95
Minor importance	2	58	17.68
Moderate importance	3	37	11.28
High importance	4	28	8.54
	N=	328	
	*=	9	
MEAN 1.2530	MEDIAN 1.0000		

Table D-27 Explanation of structure of balance sheet and gearing

		COUNT	PERCENT
Not applicable	0	6	1.81
Not at all	1	5	1.51
Minor importance	2	51	15.36
Moderate importance	3	94	28.31
High importance	4	176	53.01
	N=	332	
	*=	5	
MEAN 3.2922	MEDIAN 4.0000		

Table D-28 First announcement of major new projects and developments

		COUNT	PERCENT
Not applicable	0	26	7.83
Not at all	1	47	14.16
Minor importance	2	40	12.05
Moderate importance	3	80	24.10
High importance	4	139	41.87
	N=	332	
	*=	5	
MEAN 2.7801	MEDIAN 3.0000		

Table D-29 Further explanation of major new projects and developments that have already been announced

		COUNT	PERCENT
Not applicable	0	15	4.50
Not at all	1	25	7.51
Minor importance	2	44	13.21
Moderate importance	3	125	37.54
High importance	4	123	36.94
	33	1	0.30
	N=	333	
	*=	4	
MEAN 3.042	MEDIAN 3.000		

Table D-30 First announcement of new products

		COUNT	PERCENT
Not applicable	0	117	35.35
Not at all	1	75	22.66
Minor importance	2	53	16.01
Moderate importance	3	52	15.71
High importance	4	34	10.27
	N=	331	
	*=	6	
MEAN 1.4290	MEDIAN 1.0000		

Table D-31 Further explanation of new products that have already been announced

		COUNT	PERCENT
Not applicable	0	113	34.35
Not at all	1	46	13.98
Minor importance	2	85	25.84
Moderate importance	3	60	18.24
High importance	4	25	7.60
	N=	329	
	*=	8	
MEAN 1.5076	MEDIAN 2.0000		

Table D-32 First announcement of new contracts

		COUNT	PERCENT
Not applicable	0	92	27.71
Not at all	1	82	24.70
Minor importance	2	71	21.39
Moderate importance	3	45	13.55
High importance	4	42	12.65
	N=	332	
	*=	5	
MEAN 1.5873	MEDIAN 1.0000		

Table D-33 Further explanation of new contracts that have already been announced

		COUNT	PERCENT
Not applicable	0	93	28.44
Not at all	1	67	20.49
Minor importance	2	83	25.38
Moderate importance	3	56	17.13
High importance	4	28	8.56
	N=	327	
	*=	10	
MEAN 1.5688	MEDIAN 2.0000		

Table D-34 Current state of order book

		COUNT	PERCENT
Not applicable	0	124	37.46
Not at all	1	56	16.92
Minor importance	2	41	12.39
Moderate importance	3	68	20.54
High importance	4	42	12.69
	N=	331	
	*=	6	
MEAN 1.5408	MEDIAN 1.0000		

Table D-35 Prospects of current research and development projects

		COUNT	PERCENT
Not applicable	0	143	43.20
Not at all	1	69	20.85
Minor importance	2	66	19.94
Moderate importance	3	39	11.78
High importance	4	14	4.23
	N=	331	
	*=	6	
MEAN 1.1299	MEDIAN 1.0000		

Table D-36 First announcement of current research and development projects

		COUNT	PERCENT
Not applicable	0	149	45.29
Not at all	1	96	29.18
Minor importance	2	55	16.72
Moderate importance	3	15	4.56
High importance	4	14	4.26
	N=	329	
	*=	8	
MEAN 0.9331	MEDIAN 1.0000		

Table D-37 Further explanation of new research and development projects that have already been announced

		COUNT	PERCENT
Not applicable	0	145	44.07
Not at all	1	76	23.10
Minor importance	2	57	17.33
Moderate importance	3	38	11.55
High importance	4	13	3.95
	N=	329	
	*=	8	
MEAN 1.0821	MEDIAN 1.0000		

Table D-38 First announcement of profits forecast

		COUNT	PERCENT
Not applicable	0	73	22.12
Not at all	1	106	32.12
Minor importance	2	11	3.33
Moderate importance	3	23	6.97
High importance	4	117	35.45
	N=	330	
	*=	7	
MEAN 2.0152	MEDIAN 1.0000		

Table D-39 Further explanation of profits forecast that has already been made

		COUNT	PERCENT
Not applicable	0	77	23.26
Not at all	1	80	24.17
Minor importance	2	13	3.93
Moderate importance	3	49	14.80
High importance	4	112	33.84
	N=	331	
	*=	6	
MEAN 2.1178	MEDIAN 2.0000		

Table D-40 Company strategy in the short term

		COUNT	PERCENT
Not applicable	0	3	0.91
Not at all	1	4	1.21
Minor importance	2	20	6.04
Moderate importance	3	100	30.21
High importance	4	204	61.63
	N=	331	
	*=	6	
MEAN 3.5045	MEDIAN 4.0000		

Table D-41 Company strategy in the long term

		COUNT	PERCENT
Not applicable	0	4	1.20
Not at all	1	4	1.20
Minor importance	2	8	2.40
Moderate importance	3	52	15.62
High importance	4	265	79.58
	N=	333	
	*=	4	
MEAN 3.7117	MEDIAN 4.0000		

Table D-42 Company strategy for particular segments of the business

		COUNT	PERCENT
Not applicable	0	14	4.22
Not at all	1	7	2.11
Minor importance	2	30	9.04
Moderate importance	3	78	23.49
High importance	4	203	61.14
	N=	332	
	*=	5	
MEAN 3.3524	MEDIAN 4.0000		

Table D-43 Company strategy on future acquisitions

		COUNT	PERCENT
Not applicable	0	16	4.82
Not at all	1	26	7.83
Minor importance	2	33	9.94
Moderate importance	3	102	30.72
High importance	4	155	46.69
	N=	332	
	*=	5	
MEAN 3.0663	MEDIAN 3.0000		

Table D-44 Company strategy on future disposals of segments of the business

		COUNT	PERCENT
Not applicable	0	41	12.46
Not at all	1	48	14.59
Minor importance	2	54	16.41
Moderate importance	3	86	26.14
High importance	4	100	30.40
	N=	329	
	*=	8	
MEAN 2.4742	MEDIAN 3.0000		

Table D-45 Long term investment plans

		COUNT	PERCENT
Not applicable	0	23	7.01
Not at all	1	23	7.01
Minor importance	2	52	15.85
Moderate importance	3	109	33.23
High importance	4	121	36.89
	N=	328	
	*=	9	
MEAN 2.8598	MEDIAN 3.0000		

Table D-46 Cash flow situation

		COUNT	PERCENT
Not applicable	0	9	2.73
Not at all	1	14	4.24
Minor importance	2	28	8.48
Moderate importance	3	95	28.79
High importance	4	184	55.76
	N=	330	
	*=	7	
MEAN 3.3061	MEDIAN 4.0000		

Table D-47 Dividend policy

		COUNT	PERCENT
Not applicable	0	5	1.52
Not at all	1	13	3.95
Minor importance	2	42	12.77
Moderate importance	3	101	30.70
High importance	4	168	51.06
	N=	329	
	*=	8	
MEAN 3.2584	MEDIAN 4.0000		

Table D-48 Descriptive statistics for details of meetings with analysts

	N	N*	MEAN	MEDIAN
GENERALS	285	40	6.319	4.000
LOGT(GENERALS)	285	40	0.7531	0.6990
SPECIALS	270	55	24.64	20.00
LOGT(SPECIALS)	270	55	1.2514	1.3222
LIST(A)	261	64	26.29	20.00
LOGT(LIST(A))	261	64	1.3457	1.3222
LIST(B)	255	70	53.27	30.00
LOGT(LIST(B))	255	70	1.4798	1.4914
ANALYST(A)	268	57	24.04	20.00
LOGT(ANALYST(A))	268	57	1.2939	1.3222
ANALYST(B)	267	58	42.63	25.00
LOGT(ANALYST(B))	267	58	1.4322	1.4150
FIRMS	279	46	17.692	15.000
SQRT(FIRMS)	279	46	4.1274	4.0000
INVESTORS	264	61	30.49	20.00
LOGT(INVESTORS)	264	61	1.3056	1.3222

KEY :

TEST = Minitab's correlation test for normality
 GENERALS = Number of general meetings in past 12m
 SPECIALS = Number of special meetings in past 12m
 LIST(A) = Number of sell-side analysts on circulation list
 LIST(B) = Number of buy-side analysts on circulation list
 ANALYST(A) = Number of sell-side analysts attending meetings in past 12m
 ANALYST(B) = Number of buy-side analysts attending meetings in past 12m
 FIRMS = Number of stock-broking firms represented at meetings in past 12m
 INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-48 (continued) Descriptive statistics for details of meetings with analysts

	TRMEAN	STDEV	SEMEAN
GENERALS	5.284	7.016	0.416
LOGT(GENERALS)	0.7387	0.2854	0.0169
SPECIALS	21.85	22.63	1.38
LOGT(SPECIALS)	1.2581	0.3888	0.0237
LIST(A)	24.86	17.69	1.10
LOGT(LIST(A))	1.3533	0.2951	0.0183
LIST(B)	39.93	81.43	5.10
LOGT(LIST(B))	1.4906	0.4793	0.0300
ANALYST(A)	22.15	18.46	1.13
LOGT(ANALYST(A))	1.3034	0.3202	0.0196
ANALYST(B)	35.24	53.31	3.26
LOGT(ANALYST(B))	1.4405	0.4365	0.0267
FIRMS	16.761	11.719	0.702
SQRT(FIRMS)	4.0884	1.2893	0.0772
INVESTORS	26.04	33.31	2.05
LOGT(INVESTORS)	1.3252	0.4449	0.0274

KEY :
TEST = Minitab's correlation test for normality
GENERALS = Number of general meetings in past 12m
SPECIALS = Number of special meetings in past 12m
LIST(A) = Number of sell-side analysts on circulation list
LIST(B) = Number of buy-side analysts on circulation list
ANALYST(A) = Number of sell-side analysts attending meetings in past 12m
ANALYST(B) = Number of buy-side analysts attending meetings in past 12m
FIRMS = Number of stock-broking firms represented at meetings in past 12m
INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-48 (continued) Descriptive statistics for details of meetings with analysts

	MIN	MAX	Q1	Q3	TEST
GENERALS	0.000	50.000	2.000	7.000	0.801
LOGT(GENERALS)	0.0000	1.7076	0.4771	0.9031	0.984
SPECIALS	0.00	125.00	10.00	35.00	0.904
LOGT(SPECIALS)	0.0000	2.1004	1.0414	1.5563	0.995
LIST(A)	0.00	120.00	12.00	35.00	0.944
LOGT(LIST(A))	0.0000	2.0828	1.1139	1.5563	0.990
LIST(B)	0.00	700.00	16.00	50.00	0.727
LOGT(LIST(B))	0.0000	2.8457	1.2304	1.7076	0.978
ANALYST(A)	0.00	150.00	12.00	30.00	0.900
LOGT(ANALYST(A))	0.0000	2.1790	1.1139	1.4914	0.986
ANALYST(B)	0.00	450.00	12.00	50.00	0.790
LOGT(ANALYST(B))	0.0000	2.6542	1.1139	1.7076	0.988
FIRMS	0.000	88.000	9.000	25.000	0.944
SQRT(FIRMS)	1.0000	9.4340	3.1623	5.0990	0.991
INVESTORS	0.00	250.00	10.00	38.75	0.841
LOGT(INVESTORS)	0.0000	2.3997	1.0414	1.5987	0.980

KEY :

TEST = Minitab's correlation test for normality

GENERALS = Number of general meetings in past 12m

SPECIALS = Number of special meetings in past 12m

LIST(A) = Number of sell-side analysts on circulation list

LIST(B) = Number of buy-side analysts on circulation list

ANALYST(A) = Number of sell-side analysts attending meetings in past 12m

ANALYST(B) = Number of buy-side analysts attending meetings in past 12m

FIRMS = Number of stock-broking firms represented at meetings in past 12m

INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-49 Pearson and Spearman correlation between quantitative data on analysts' meetings

Raw data

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SPECIALS	0.207			
LIST(A)	0.236	0.469		
LIST(B)	0.236	0.394	0.476	
ANALYST(A)	0.280	0.467	0.819	0.429
ANALYST(B)	0.302	0.495	0.537	0.671
FIRMS	0.216	0.465	0.623	0.363
INVESTORS	0.317	0.440	0.485	0.635

	ANALYST(A)	ANALYST(B)	FIRMS
ANALYST(B)	0.566		
FIRMS	0.645	0.462	
INVESTORS	0.455	0.831	0.438

Transformed data

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SPECIALS	0.310			
LIST(A)	0.164	0.378		
LIST(B)	0.369	0.364	0.427	
ANALYST(A)	0.241	0.455	0.863	0.479
ANALYST(B)	0.344	0.485	0.394	0.773
FIRMS	0.251	0.497	0.672	0.423
INVESTORS	0.318	0.462	0.382	0.712

	ANALYST(A)	ANALYST(B)	FIRMS
ANALYST(B)	0.513		
FIRMS	0.694	0.496	
INVESTORS	0.444	0.794	0.459

Table D-49 (continued) Pearson and Spearman correlation between quantitative data on analysts' meetings

Spearman rank correlation

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SPECIALS	0.299			
LIST(A)	0.194	0.447		
LIST(B)	0.401	0.426	0.518	
ANALYST(A)	0.231	0.493	0.889	0.520
ANALYST(B)	0.395	0.523	0.458	0.799
FIRMS	0.225	0.520	0.737	0.471
INVESTORS	0.367	0.537	0.451	0.743

	ANALYST(A)	ANALYST(B)	FIRMS
ANALYST(B)	0.559		
FIRMS	0.794	0.520	
INVESTORS	0.475	0.821	0.507

KEY :

GENERALS = Number of general meetings in past 12m

SPECIALS = Number of special meetings in past 12m

LIST(A) = Number of sell-side analysts on circulation list

LIST(B) = Number of buy-side analysts on circulation list

ANALYST(A) = Number of sell-side analysts attending meetings in past 12m

ANALYST(B) = Number of buy-side analysts attending meetings in past 12m

FIRMS = Number of stock-broking firms represented at meetings in past 12m

INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-50 Pearson correlation between quantitative data on analysts' meetings and continuous independent variables

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SIZE				
AV(MV)	0.342**	0.247**	0.374**	0.332**
LOGTAVMV	0.266**	0.379**	0.576**	0.388**
MARKETABILITY				
LISTINGS	0.465**	0.331**	0.466**	0.391**
LOGLIST	0.407**	0.413**	0.505**	0.430**
TRADFREQ	-0.071	-0.209**	-0.234**	-0.120
LOGTRADF	-0.097	-0.278**	-0.329**	-0.181**
RISK				
BETA	0.026	0.100	0.186**	0.165**
VARIAB	-0.077	0.026	-0.125*	-0.044
SQRTVAR	-0.077	0.013	-0.119	-0.038
SPECRISK	-0.104	-0.027	-0.242**	-0.119
LOGTSRSK	-0.117	-0.084	-0.277**	-0.123
PROFITABILITY				
707ROCE	0.034	-0.030	-0.144*	-0.032
711TPM	0.077	-0.045	-0.006	0.025
716PTPM	0.072	-0.023	-0.033	0.015
703ROSC	0.087	0.008	-0.069	0.022
GEARING				
731CGEAR	-0.018	0.049	-0.016	-0.005
732IGEAR	-0.030	-0.028	0.054	-0.056
SQRTIG	-0.026	-0.029	0.050	-0.065
733BR	-0.045	0.070	-0.000	0.032
SQRTBR	-0.037	0.090	-0.002	0.051
TAKEOVER ACTIVITY				
TAKEOVER	0.019	-0.018	0.053	0.048
LOGTAKEO	0.014	-0.016	0.041	0.055
SHAREHOLDER DETAILS				
BFA%	-0.063	-0.162**	-0.270**	-0.136*
NEGRBFA%	-0.104	-0.145*	-0.316**	-0.127*
TOTSSH	-0.045	-0.229**	-0.284**	-0.170**
SQRTOTSH	-0.037	-0.220**	-0.305**	-0.159*
NOOFSSH	-0.096	-0.154*	-0.297**	-0.152*

Note:

** = Significant at at least the .01 level (two tail test)

* = Significant at at least the .05 level (two tail test)

Table D-50 (continued) Pearson correlation between quantitative data on analysts' meetings and continuous independent variables

	ANALYST(A)	ANALYST(B)	FIRMS	INVESTORS
SIZE				
AV(MV)	0.432**	0.449**	0.373**	0.448**
LOGTAVMV	0.637**	0.474**	0.588**	0.490**
MARKETABILITY				
LISTINGS	0.461**	0.509**	0.339**	0.486**
LOGLIST	0.505**	0.521**	0.407**	0.479**
TRADFREQ	-0.254**	-0.140*	-0.264**	-0.181**
LOGTRADF	-0.342**	-0.205**	-0.369**	-0.251**
RISK				
BETA	0.154*	0.157*	0.102	0.113
VARIAB	-0.152*	-0.062	-0.107	-0.094
SQRTVAR	-0.148*	-0.063	-0.109	-0.098
SPECRISK	-0.259**	-0.151*	-0.173**	-0.167**
LOGTSRSK	-0.296**	-0.189**	-0.219**	-0.209**
PROFITABILITY				
707ROCE	-0.029	-0.043	-0.012	-0.043
711TPM	-0.002	0.016	-0.027	-0.004
716PTPM	-0.036	0.020	-0.026	0.002
703ROSC	-0.024	0.014	-0.020	0.004
GEARING				
731CGEAR	0.002	0.021	0.036	-0.031
732IGEAR	0.048	-0.050	0.022	-0.069
SQRTIG	0.040	-0.050	0.019	-0.064
733BR	0.024	0.018	-0.010	0.018
SQRTBR	0.047	0.039	0.000	0.034
TAKEOVER ACTIVITY				
TAKEOVER	0.067	-0.033	0.037	-0.005
LOGTAKEO	0.056	-0.033	0.027	-0.003
SHAREHOLDER DETAILS				
BFA%	-0.213**	-0.150*	-0.211**	-0.170**
NEGRBFA%	-0.285**	-0.179**	-0.250**	-0.199**
TOTSSH	-0.295**	-0.177**	-0.242**	-0.191**
SQRTOTSH	-0.316**	-0.176**	-0.251**	-0.195**
NOOFSSH	-0.309**	-0.164**	-0.280**	-0.226**

KEY :

GENERALS = Number of general meetings in past 12m

SPECIALS = Number of special meetings in past 12m

LIST(A) = Number of sell-side analysts on circulation list

LIST(B) = Number of buy-side analysts on circulation list

ANALYST(A) = Number of sell-side analysts attending meetings in past 12m

ANALYST(B) = Number of buy-side analysts attending meetings in past 12m

FIRMS = Number of stock-broking firms represented at meetings in past 12m

INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-51 Spearman correlation between quantitative data on analysts' meetings and continuous independent variables

	GENERALS	SPECIALS	LIST(A)	LIST(B)
SIZE				
AV(MV)	0.268**	0.366**	0.588**	0.457**
MARKETABILITY				
LISTING	0.288**	0.351**	0.379**	0.369**
TRADFREQ	-0.167**	-0.398**	-0.479**	-0.375**
RISK				
BETA	0.024	0.099	0.179**	0.124*
VARIAB	-0.100	-0.101	-0.138*	-0.131*
SPECRISK	-0.143*	-0.183**	-0.304**	-0.250**
PROFITABILITY				
707ROCE	-0.007	-0.093	-0.147*	-0.053
711TPM	0.066	-0.092	-0.088	-0.010
716PTPM	0.055	-0.136*	-0.140*	0.022
703ROSC	0.025	-0.005	-0.059	0.011
GEARING				
731CG	0.042	0.241**	0.153*	0.082
732IG	0.014	0.134*	0.127*	-0.056
733BR	0.038	0.267**	0.204**	0.123*
TAKEOVER ACTIVITY				
TAKEOVER	0.055	0.015	0.029	0.037
SHAREHOLDER DETAILS				
BFA%	-0.102	-0.191**	-0.306**	-0.182**
TOTSSH	-0.081	-0.213**	-0.335**	-0.258**
NOOFSSH	-0.086	-0.149*	-0.312**	-0.232**

NOTE :

** = Significant at at least the .01 level (two tail test)

* = Significant at at least the .05 level (two tail test)

KEY :

GENERALS = Number of general meetings in past 12m

SPECIALS = Number of special meetings in past 12m

LIST(A) = Number of sell-side analysts on circulation list

LIST(B) = Number of buy-side analysts on circulation list

Table D-51 (continued) Spearman correlation between quantitative data on analysts' meetings and continuous independent variables

	ANALYST(A)	ANALYST(B)	FIRMS	INVESTORS
SIZE				
AVMV	0.684**	0.481**	0.677**	0.478**
MARKETABILITY				
LISTING	0.430**	0.359**	0.413**	0.314**
TRADFRQ	-0.547**	-0.389**	-0.547**	-0.391**
RISK				
BETA	0.189**	0.110	0.116	0.093
VARIAB	-0.176**	-0.165**	-0.166**	-0.194**
SPRISK	-0.360**	-0.299**	-0.295**	-0.307**
PROFITABILITY				
707ROCE	-0.152*	-0.037	-0.154*	-0.065
711TPM	-0.066	0.034	-0.124	-0.003
716PTPM	-0.159*	0.024	-0.189*	-0.022
703ROSC	-0.043	0.044	-0.058	0.043
GEARING				
731CG	0.175**	0.144*	0.193**	0.111
732IG	0.159*	0.016	0.179**	0.022
733BR	0.274**	0.168**	0.253**	0.170**
TAKEOVER ACTIVITY				
TOVER	0.050	0.012	0.020	0.047
SHAREHOLDER DETAILS				
BFA%	-0.306**	-0.197**	-0.266**	-0.202**
TOTSSH	-0.357**	-0.206**	-0.313**	-0.186**
NOSSH	-0.338**	-0.184**	-0.330**	-0.203**

KEY :

ANALYST(A) = Number of sell-side analysts attending meetings in past 12m

ANALYST(B) = Number of buy-side analysts attending meetings in past 12m

FIRMS = Number of stock-broking firms represented at meetings in past 12m

INVESTORS = Number of institutional investors represented at meetings in past 12m

Table D-52 Kruskal-Wallis tests of association between the number of general meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	231	4.000	131.9	-4.71	22.66	0.000
	1	54	8.000	190.6	4.71		
TFCAT	0	184	5.000	152.6	2.81	8.05	0.005
	1	100	4.000	123.9	-2.81		
ALPHA	1	245	4.000	147.1	2.09	4.46	0.035
	2	40	3.500	117.7	-2.09		
4WAYINDC	1	92	4.000	127.9	-2.14	11.36	0.010
	2	90	4.000	142.1	-0.12		
	3	71	5.000	169.4	3.11		
	4	32	3.500	130.5	-0.91		
SSH(Y/N)	0	84	5.000	147.8	0.63	0.41	0.524
	1	201	4.000	141.0	-0.63		

Table D-53 Kruskal-Wallis tests of association between the number of special meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	220	15.00	122.3	-5.82	34.04	0.000
	1	50	37.50	193.5	5.82		
TFCAT	0	170	25.00	157.3	6.34	40.47	0.000
	1	98	10.00	94.9	-6.34		
ALPHA	1	231	20.00	144.0	4.36	19.06	0.000
	2	39	10.00	85.1	-4.36		
4WAYINDC	1	86	19.00	128.5	-1.01	7.70	0.053
	2	82	20.00	155.3	2.75		
	3	69	12.00	126.8	-1.08		
	4	33	18.00	123.0	-0.98		
SSH(Y/N)	0	80	20.00	145.4	1.35	1.84	0.175
	1	190	16.50	131.3	-1.35		

* = p value adjusted for ties

Table D-54 Kruskal-Wallis tests of association between the number of sell-side analysts on circulation list for invitation to meetings and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	206	20.00	116.6	-5.95	35.69	0.000
	1	55	40.00	184.8	5.95		
TFCAT	0	177	30.00	154.1	7.38	54.93	0.000
	1	83	12.00	80.2	-7.38		
ALPHA	1	229	25.00	140.3	5.34	28.77	0.000
	2	32	10.00	64.2	-5.34		
4WAYINDC	1	80	25.00	133.6	0.38	5.56	0.136
	2	83	25.00	138.6	1.11		
	3	67	20.00	113.0	-2.27		
	4	31	25.00	142.8	0.93		
SSH(Y/N)	0	72	30.00	157.7	3.53	12.54	0.000
	1	189	20.00	120.8	-3.53		

Table D-55 Kruskal-Wallis tests of association between the number of buy-side analysts and fund managers on circulation list for invitation to meetings and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	202	25.00	114.5	-5.72	32.90	0.000
	1	53	50.00	179.6	5.72		
TFCAT	0	172	40.00	145.2	5.56	31.05	0.000
	1	82	20.00	90.4	-5.56		
ALPHA	1	224	32.00	134.6	3.85	14.94	0.000
	2	31	20.00	80.1	-3.85		
4WAYINDC	1	78	20.00	115.4	-1.80	7.44	0.060
	2	76	30.00	127.3	-0.11		
	3	71	40.00	146.8	2.52		
	4	30	30.00	118.1	-0.78		
SSH(Y/N)	0	74	37.50	142.2	1.96	3.88	0.049
	1	181	30.00	122.2	-1.96		

* = p value adjusted for ties

Table D-56 Kruskal-Wallis tests of association between the number of sell-side analysts attending meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	214	20.00	118.3	-6.80	46.67	0.000
	1	54	40.00	198.6	6.80		
TFCAT	0	174	25.00	163.7	8.59	74.36	0.000
	1	93	10.00	78.5	-8.59		
ALPHA	1	232	20.000	146.3	6.33	40.40	0.000
	2	36	9.000	58.4	-6.33		
4WAYINDC	1	82	20.00	132.7	-0.26	1.51	0.681
	2	82	20.00	138.6	0.58		
	3	72	20.00	127.2	-0.93		
	4	32	20.00	145.0	0.81		
SSH(Y/N)	0	77	25.00	160.8	3.53	12.53	0.000
	1	191	20.00	123.9	-3.53		

Table D-57 Kruskal-Wallis tests of association between the number of buy-side analysts and fund managers attending meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	214	20.00	120.7	-5.67	32.36	0.000
	1	53	58.00	187.9	5.67		
TFCAT	0	172	30.00	154.3	6.16	38.10	0.000
	1	93	17.00	93.6	-6.16		
ALPHA	1	228	30.00	141.1	3.62	13.14	0.000
	2	39	20.00	92.7	-3.62		
4WAYINDC	1	82	20.00	123.3	-1.51	3.68	0.299
	2	80	25.00	132.6	-0.19		
	3	75	30.00	146.8	1.69		
	4	30	30.00	135.1	0.08		
SSH(Y/N)	0	79	30.00	145.7	1.60	2.58	0.109
	1	188	25.00	129.1	-1.60		

* = p value adjusted for ties

Table D-58 Kruskal-Wallis tests of association between the number of stock-broking firms attending meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	227	12.00	124.3	-6.77	46.25	0.000
	1	52	30.00	208.4	6.77		
TFCAT	0	178	20.00	171.2	8.78	77.69	0.000
	1	100	10.00	83.0	-8.78		
ALPHA	1	235	20.000	154.5	7.26	53.08	0.000
	2	43	6.000	57.7	-7.26		
4WAYINDC	1	87	15.00	130.8	-1.28	3.97	0.265
	2	85	18.00	148.9	1.22		
	3	73	15.00	133.3	-0.83		
	4	34	20.00	155.7	1.21		
SSH(Y/N)	0	79	20.00	166.5	3.53	12.57	0.000
	1	199	15.00	128.8	-3.53		

Table D-59 Kruskal-Wallis tests of association between the number of institutional investor organisations attending meetings in the past 12m. and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	217	20.00	121.8	-4.87	23.84	0.000
	1	47	40.00	181.7	4.87		
TFCAT	0	170	30.00	152.0	5.77	33.43	0.000
	1	93	15.00	95.4	-5.77		
ALPHA	1	222	25.00	141.3	4.60	21.29	0.000
	2	41	12.00	81.8	-4.60		
4WAYINDC	1	84	20.00	130.1	-0.35	2.50	0.475
	2	82	20.00	136.3	0.54		
	3	70	20.00	138.6	0.78		
	4	28	14.50	113.4	-1.40		
SSH(Y/N)	0	72	20.00	142.1	1.32	1.75	0.186
	1	191	20.00	128.2	-1.32		

* = p value adjusted for ties

Table D-60 Stepwise regression of number of general meetings
(GENERALS)

STEPWISE REGRESSION OF GENERALS ON 17 PREDICTORS, WITH N = 251 N(CASES WITH MISSING OBS.) = 74 N(ALL CASES) = 325	
STEP	1
CONSTANT	5.143
LOGLIST	12.0
T-RATIO	6.30
S	6.54
R-SQ	13.74

Table D-61 Multiple regression of number of general meetings
(GENERALS) using variables identified by stepwise regression

The regression equation is
 $\text{GENERALS} = 5.11 + 13.1 \text{ LOGLIST}$

285 cases used 40 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	5.1109	0.4129	12.38	0.000
LOGLIST	13.088	1.744	7.51	0.000

s = 6.418 R-sq = 16.6% R-sq(adj) = 16.3%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	2320.3	2320.3	56.33	0.000
Error	283	11657.6	41.2		
Total	284	13977.9			

Table D-62 Stepwise regression of number of special meetings (SPECIALS)

STEPWISE REGRESSION OF SPECIALS ON 17 PREDICTORS, WITH N = 235 N(CASES WITH MISSING OBS.) = 90 N(ALL CASES) = 325		
STEP	1	2
CONSTANT	21.03	24.11
LOGLIST	41.9	37.4
T-RATIO	6.67	5.99
LOGTRADF		-42
T-RATIO		-3.74
S	21.0	20.5
R-SQ	16.02	20.81

Table D-63 Multiple regression of number of special meetings (SPECIALS) using variables identified by stepwise regression

The regression equation is					
SPECIALS = 23.3 + 37.2 LOGLIST - 39.9 LOGTRADF					
268 cases used 57 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	23.255	1.493	15.57	0.000	
LOGLIST	37.191	5.632	6.60	0.000	
LOGTRADF	-39.86	10.69	-3.73	0.000	
s = 19.83 R-sq = 20.8% R-sq(adj) = 20.2%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	2	27328	13664	34.75	0.000
Error	265	104199	393		
Total	267	131527			

Table D-64 Stepwise regression of number of sell-side analysts on circulation list

STEPWISE REGRESSION OF LIST(A) ON 17 PREDICTORS, WITH N = 229 N(CASES WITH MISSING OBS.) = 96 N(ALL CASES) = 325						
STEP	1	2	3	4	5	6
CONSTANT	-17.07	-31.87	-23.75	-14.42	-13.00	-16.32
LOGTAVMV	17.2	17.2	13.8	12.2	10.0	11.5
T-RATIO	10.91	11.20	7.42	6.37	4.92	5.37
BETA		14.7	13.5	13.4	14.0	13.8
T-RATIO		3.52	3.28	3.32	3.50	3.50
LOGLIST			15.5	15.7	15.3	14.7
T-RATIO			3.04	3.13	3.10	2.99
SQRTOTSH				-1.34	-1.53	-2.56
T-RATIO				-3.01	-3.43	-3.88
NEGRBFA%					-7.4	-7.4
T-RATIO					-2.78	-2.80
NOOFSSH						2.2
T-RATIO						2.10
S	14.3	13.9	13.7	13.4	13.2	13.1
R-SQ	34.41	37.81	40.27	42.58	44.50	45.58

Table D-65 Multiple regression of the number of sell-side analysts on circulation list (LIST(A)) using variables identified by stepwise regression

The regression equation is
LIST(A) = - 14.7 + 10.8 LOGTAVMV + 13.7 BETA + 17.8 LOGLIST
- 2.31 SQRTOTSH - 6.21 NEGRBFA% + 1.87 NOOFSSH

252 cases used 73 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-14.661	6.674	-2.20	0.029
LOGTAVMV	10.767	2.032	5.30	0.000
BETA	13.669	3.884	3.52	0.001
LOGLIST	17.813	4.603	3.87	0.000
SQRTOTSH	-2.3096	0.6183	-3.74	0.000
NEGRBFA%	-6.214	2.538	-2.45	0.015
NOOFSSH	1.8712	0.9835	1.90	0.058

s = 13.24 R-sq = 45.8% R-sq(adj) = 44.4%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	6	36236.2	6039.4	34.45	0.000
Error	245	42949.4	175.3		
Total	251	79185.6			

Table D-66 Stepwise regression of number of buy-side analysts (LIST(B)) on circulation list

STEPWISE REGRESSION OF LIST(B) ON 17 PREDICTORS, WITH N = 222 N(CASES WITH MISSING OBS.) = 103 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	37.38	-27.59	-84.82	-12.26
LOGLIST	132	87	79	80
T-RATIO	6.39	3.38	3.12	3.17
LOGTAVMV		27.8	30.0	29.6
T-RATIO		2.90	3.14	3.13
BETA			52	59
T-RATIO			2.54	2.85
SQRTIG				-4.9
T-RATIO				-2.09
S	69.5	68.4	67.5	67.0
R-SQ	15.64	18.75	21.08	22.64

Table D-67 Multiple regression of number of buy-side analysts on circulation list (LIST(B)) using variables identified in stepwise regression

The regression equation is

LIST(B) = - 27.9 + 81.8 LOGLIST + 31.6 LOGTAVMV + 55.9 BETA
- 4.01 SQRTIG

232 cases used 93 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-27.95	49.07	-0.57	0.570
LOGLIST	81.77	26.46	3.09	0.002
LOGTAVMV	31.574	9.778	3.23	0.001
BETA	55.88	21.99	2.54	0.012
SQRTIG	-4.013	2.453	-1.64	0.103

s = 72.05 R-sq = 21.2% R-sq(adj) = 19.8%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	316888	79222	15.26	0.000
Error	227	1178486	5192		
Total	231	1495374			

Table D-68 Stepwise regression of number of sell-side analysts attending meetings (ANALYST(A))

STEPWISE REGRESSION OF ANALYSTS(A) ON 17 PREDICTORS, WITH N = 236 N(CASES WITH MISSING OBS.) = 89 N(ALL CASES) = 325				
STEP	1	2	3	
CONSTANT	-25.43	-37.42	-30.69	
LOGTAVMV	19.8	19.8	17.0	
T-RATIO	12.67	12.83	8.91	
BETA		12.1	11.2	
T-RATIO		2.85	2.64	
LOGLIST			12.9	
T-RATIO			2.44	
S	14.5	14.3	14.2	
R-SQ	40.67	42.67	44.11	

Table D-69 Multiple regression of number of sell-side analysts attending meetings in past 12m (ANALYST(A)) using variables identified in stepwise regression

The regression equation is
ANALYST(A) = - 28.8 + 16.3 LOGTAVMV + 14.3 LOGLIST + 10.4 BETA

259 cases used 66 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-28.755	5.956	-4.83	0.000
LOGTAVMV	16.327	1.756	9.30	0.000
LOGLIST	14.273	4.844	2.95	0.004
BETA	10.352	4.063	2.55	0.011

s = 13.95 R-sq = 45.1% R-sq(adj) = 44.5%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	40795	13598	69.92	0.000
Error	255	49596	194		
Total	258	90391			

Table D-70 Stepwise regression of number of buy-side analysts attending meetings (ANALYST(B))

STEPWISE REGRESSION OF ANALYST(B) ON 17 PREDICTORS, WITH N = 234 N(CASES WITH MISSING OBS.) = 91 N(ALL CASES) = 325			
STEP	1	2	3
CONSTANT	-54.79	-26.62	-51.98
LOGTAVMV	39.0	25.2	25.6
T-RATIO	8.39	4.48	4.57
LOGLIST		63	60
T-RATIO		4.06	3.87
BETA			25
T-RATIO			2.02
S	42.9	41.5	41.2
R-SQ	23.26	28.37	29.62

Table D-71 Multiple regression of number of buy-side analysts attending meetings in past 12m (ANALYST(B)) using variable identified by stepwise regression

The regression equation is
ANALYST(B) = - 47.3 + 22.6 LOGTAVMV + 85.3 LOGLIST + 25.3 BETA

256 cases used 69 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-47.30	18.91	-2.50	0.013
LOGTAVMV	22.609	5.621	4.02	0.000
LOGLIST	85.31	15.72	5.43	0.000
BETA	25.28	13.14	1.92	0.056

s = 44.87 R-sq = 32.3% R-sq(adj) = 31.5%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	242368	80789	40.13	0.000
Error	252	507365	2013		
Total	255	749733			

Table D-72 Stepwise regression of number of stock-broking firms represented at meetings (FIRMS)

STEPWISE REGRESSION OF FIRMS ON 17 PREDICTORS, WITH N = 247 N(CASES WITH MISSING OBS.) = 78 N(ALL CASES) = 325		
STEP	1	2
CONSTANT	-10.108	-6.445
LOGTAVMV	11.1	10.0
T-RATIO	10.76	8.64
LOGTRADF		-12.6
T-RATIO		-2.22
S	9.62	9.54
R-SQ	32.11	33.46

Table D-73 Multiple regression of number of stockbroking firms represented at meetings (FIRMS) using variables identified by stepwise regression

The regression equation is
FIRMS = - 7.28 + 10.3 LOGTAVMV - 12.7 LOGTRADF

278 cases used 47 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-7.279	2.861	-2.54	0.012
LOGTAVMV	10.260	1.054	9.73	0.000
LOGTRADF	-12.658	5.519	-2.29	0.023

s = 9.437 R-sq = 35.8% R-sq(adj) = 35.3%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	13628.6	6814.3	76.51	0.000
Error	275	24491.5	89.1		
Total	277	38120.1			

Table D-74 Stepwise regression of number of institutional investor organisations represented at meetings (INVESTORS)

STEPWISE REGRESSION OF INVESTORS ON 17 PREDICTORS, WITH N = 237 N(CASES WITH MISSING OBS.) = 88 N(ALL CASES) = 325			
STEP	1	2	
CONSTANT	-36.03	-22.97	
LOGTAVMV	26.9	20.5	
T-RATIO	8.87	5.68	
LOGLIST		31	
T-RATIO		3.10	
S	27.3	26.8	
R-SQ	25.06	28.02	

Table D-75 Multiple regression of number of insitutional investor organisations represented at meetings (INVESTORS) using variables identified by stepwise regression

The regression equation is
INVESTORS = - 18.2 + 17.9 LOGTAVMV + 46.3 LOGLIST

264 cases used 61 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-18.244	8.409	-2.17	0.031
LOGTAVMV	17.922	3.478	5.15	0.000
LOGLIST	46.322	9.798	4.73	0.000

s = 27.96 R-sq = 30.0% R-sq(adj) = 29.5%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	87682	43841	56.06	0.000
Error	261	204110	782		
Total	263	291792			

Table D-76 Stepwise regression of number of special meetings (SPECIALS) with critical F value reduced to 2

STEPWISE REGRESSION OF SPECIALS ON 17 PREDICTORS, WITH N = 235 N(CASES WITH MISSING OBS.) = 90 N(ALL CASES) = 325						
STEP	1	2	3	4	5	6
CONSTANT	21.03	24.11	28.30	29.51	14.74	-16.20
LOGLIST	41.9	37.4	35.2	36.8	29.3	25.4
T-RATIO	6.67	5.99	5.54	5.79	3.79	3.21
LOGTRADF		-42	-40	-43	-34	-24
T-RATIO		-3.74	-3.54	-3.77	-2.78	-1.83
SQRTOTSH			-1.10	-2.87	-3.09	-3.45
T-RATIO			-1.67	-2.66	-2.86	-3.17
NOOFSSH				3.1	4.0	4.3
T-RATIO				2.06	2.52	2.69
LOGTAVMV					5.7	9.2
T-RATIO					1.71	2.45
SQRTVAR						3.9
T-RATIO						2.03
S	21.0	20.5	20.4	20.2	20.1	20.0
R-SQ	16.02	20.81	21.75	23.17	24.13	25.48
The regression equation is SPECIALS = - 12.5 + 25.7 LOGLIST - 22.8 LOGTRADF - 3.15 SQRTOTSH + 3.85 NOOFSSH + 8.38 LOGTAVMV + 3.43 SQRTVAR						
259 cases used 66 cases contain missing values						
Predictor	Coef	Stdev	t-ratio	p		
Constant	-12.47	16.84	-0.74	0.459		
LOGLIST	25.655	7.223	3.55	0.000		
LOGTRADF	-22.80	12.73	-1.79	0.074		
SQRTOTSH	-3.1521	0.9713	-3.25	0.001		
NOOFSSH	3.852	1.444	2.67	0.008		
LOGTAVMV	8.383	3.432	2.44	0.015		
SQRTVAR	3.427	1.843	1.86	0.064		
s = 19.64 R-sq = 25.2% R-sq(adj) = 23.5%						
Analysis of Variance						
SOURCE	DF	SS	MS	F	p	
Regression	6	32837.9	5473.0	14.18	0.000	
Error	252	97229.4	385.8			
Total	258	130067.3				

Table D-77 Stepwise regression of number of sell-side analysts on circulation list (LIST(A)) with critical F value reduced to 2

STEPWISE REGRESSION OF LIST(A) ON 17 PREDICTORS, WITH N = 229 N(CASES WITH MISSING OBS.) = 96 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	-17.07	-31.87	-23.75	-14.42
LOGTAVMV	17.2	17.2	13.8	12.2
T-RATIO	10.91	11.20	7.42	6.37
BETA		14.7	13.5	13.4
T-RATIO		3.52	3.28	3.32
LOGLIST			15.5	15.7
T-RATIO			3.04	3.13
SQRTOTSH				-1.34
T-RATIO				-3.01
S	14.3	13.9	13.7	13.4
R-SQ	34.41	37.81	40.27	42.58
STEP	5	6	7	8
CONSTANT	-13.00	-16.32	-13.63	4.360
LOGTAVMV	10.0	11.5	11.3	11.5
T-RATIO	4.92	5.37	5.31	5.40
BETA	14.0	13.8	13.5	14.0
T-RATIO	3.50	3.50	3.41	3.55
LOGLIST	15.3	14.7	14.8	15.1
T-RATIO	3.10	2.99	3.04	3.12
SQRTOTSH	-1.53	-2.56	-2.59	-2.58
T-RATIO	-3.43	-3.88	-3.93	-3.95
NEGRBFA%	-7.4	-7.4	-6.7	-6.6
T-RATIO	-2.78	-2.80	-2.55	-2.51
NOOFSSH		2.2	2.1	2.2
T-RATIO		2.10	2.05	2.12
707ROCE			-0.065	-0.081
T-RATIO			-1.77	-2.15
SQRTBR				-6.8
T-RATIO				-1.74
S	13.2	13.1	13.1	13.0
R-SQ	44.50	45.58	46.34	47.07

Table D-77 (continued) Stepwise regression of number of sell-side analysts on circulation list (LIST(A)) with critical F value reduced to 2

The regression equation is

$$\text{LIST(A)} = 1.6 + 11.2 \text{ LOGTAVMV} + 13.8 \text{ BETA} + 16.7 \text{ LOGLIST} \\ - 2.42 \text{ SQRTOTSH} - 5.58 \text{ NEGRBFA\%} + 1.86 \text{ NOOFSSH} \\ - 0.0798 \text{ 707ROCE} - 5.44 \text{ SQRTBR}$$

243 cases used 82 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	1.59	10.47	0.15	0.880
LOGTAVMV	11.241	2.083	5.40	0.000
BETA	13.786	3.918	3.52	0.001
LOGLIST	16.736	4.686	3.57	0.000
SQRTOTSH	-2.4180	0.6193	-3.90	0.000
NEGRBFA%	-5.577	2.589	-2.15	0.032
NOOFSSH	1.8632	0.9806	1.90	0.059
707ROCE	-0.07977	0.03746	-2.13	0.034
SQRTBR	-5.440	2.751	-1.98	0.049

s = 13.16 R-sq = 48.2% R-sq(adj) = 46.4%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	8	37733.1	4716.6	27.21	0.000
Error	234	40556.1	173.3		
Total	242	78289.2			

Table D-78 Stepwise regression of number of sell-side analysts attending meetings (ANALYSTS(A)) with critical F value reduced to 2

STEPWISE REGRESSION OF ANALYSTS(A) ON 17 PREDICTORS, WITH N = 236 N(CASES WITH MISSING OBS.) = 89 N(ALL CASES) = 325						
STEP	1	2	3	4	5	6
CONSTANT	-25.43	-37.42	-30.69	-25.04	-26.95	-26.92
LOGTAVMV	19.8	19.8	17.0	15.9	17.2	16.0
T-RATIO	12.67	12.83	8.91	8.00	8.26	7.30
BETA		12.1	11.2	11.1	10.7	11.3
T-RATIO		2.85	2.64	2.65	2.55	2.71
LOGLIST			12.9	13.0	12.5	12.3
T-RATIO			2.44	2.49	2.39	2.36
SQRTOTSH				-0.82	-2.02	-2.08
T-RATIO				-1.74	-2.61	-2.70
NOOFSSH					2.2	2.2
T-RATIO					1.95	1.94
NEGRBFA%						-4.5
T-RATIO						-1.65
S	14.5	14.3	14.2	14.1	14.0	14.0
R-SQ	40.67	42.67	44.11	44.83	45.73	46.37
The regression equation is ANALYST(A) = - 24.0 + 15.2 LOGTAVMV + 10.7 BETA + 14.1 LOGLIST - 1.97 SQRTOTSH + 1.89 NOOFSSH - 3.35 NEGRBFA%						
259 cases used 66 cases contain missing values						
Predictor	Coef	Stdev	t-ratio	p		
Constant	-23.989	6.678	-3.59	0.000		
LOGTAVMV	15.169	2.042	7.43	0.000		
BETA	10.667	4.042	2.64	0.009		
LOGLIST	14.059	4.794	2.93	0.004		
SQRTOTSH	-1.9726	0.6961	-2.83	0.005		
NOOFSSH	1.889	1.041	1.82	0.071		
NEGRBFA%	-3.347	2.570	-1.30	0.194		
s = 13.78 R-sq = 47.1% R-sq(adj) = 45.8%						
Analysis of Variance						
SOURCE	DF	SS	MS	F	p	
Regression	6	42571.9	7095.3	37.39	0.000	
Error	252	47818.6	189.8			
Total	258	90390.6				

Table D-79 Stepwise regression of number of buy-side analysts attending meetings (ANALYST(B)) with critical F value reduced to 2

STEPWISE REGRESSION OF ANALYST(B) ON 17 PREDICTORS, WITH N = 234 N(CASES WITH MISSING OBS.) = 91 N(ALL CASES) = 325					
STEP	1	2	3	4	5
CONSTANT	-54.79	-26.62	-51.98	-66.77	-31.37
LOGTAVMV	39.0	25.2	25.6	29.3	29.7
T-RATIO	8.39	4.48	4.57	4.81	4.89
LOGLIST		63	60	59	59
T-RATIO		4.06	3.87	3.80	3.85
BETA			25	25	28
T-RATIO			2.02	2.04	2.24
NOOFSSH				3.1	3.5
T-RATIO				1.54	1.73
SQRTIG					-2.5
T-RATIO					-1.67
S	42.9	41.5	41.2	41.1	40.9
R-SQ	23.26	28.37	29.62	30.34	31.18
The regression equation is ANALYST(B) = - 24.6 + 28.7 LOGTAVMV + 59.7 LOGLIST + 25.1 BETA + 3.06 NOOFSSH - 2.59 SQRTIG					
243 cases used 82 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	-24.60	28.95	-0.85	0.396	
LOGTAVMV	28.732	5.901	4.87	0.000	
LOGLIST	59.72	14.97	3.99	0.000	
BETA	25.10	12.20	2.06	0.041	
NOOFSSH	3.064	1.996	1.54	0.126	
SQRTIG	-2.593	1.474	-1.76	0.080	
s = 40.67 R-sq = 31.5% R-sq(adj) = 30.0%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	5	180173	36035	21.79	0.000
Error	237	392009	1654		
Total	242	572183			

Table D-80 Stepwise regression of number of stock-broking firms represented at meetings (FIRMS) with critical F value reduced to 2

STEPWISE REGRESSION OF FIRMS ON 17 PREDICTORS, WITH N = 247 N(CASES WITH MISSING OBS.) = 78 N(ALL CASES) = 325					
STEP	1	2	3	4	5
CONSTANT	-10.108	-6.445	-6.279	-3.230	-16.917
LOGTAVMV	11.1	10.0	10.2	9.6	10.7
T-RATIO	10.76	8.64	8.83	7.97	7.85
LOGTRADF		-12.6	-12.5	-12.4	-9.8
T-RATIO		-2.22	-2.20	-2.20	-1.68
711TPM			-0.050	-0.046	-0.045
T-RATIO			-1.79	-1.65	-1.60
SQRTOTSH				-0.46	-0.56
T-RATIO				-1.52	-1.84
LOGTSRSK					8.1
T-RATIO					1.67
S	9.62	9.54	9.50	9.47	9.44
R-SQ	32.11	33.46	34.32	34.94	35.69
The regression equation is FIRMS = - 16.6 + 10.7 LOGTAVMV - 9.65 LOGTRADF - 0.0442 711TPM - 0.592 SQRTOTSH + 7.93 LOGTSRSK					
248 cases used 77 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	-16.635	8.946	-1.86	0.064	
LOGTAVMV	10.687	1.363	7.84	0.000	
LOGTRADF	-9.651	5.824	-1.66	0.099	
711TPM	-0.04423	0.02796	-1.58	0.115	
SQRTOTSH	-0.5923	0.3048	-1.94	0.053	
LOGTSRSK	7.933	4.812	1.65	0.101	
s = 9.430 R-sq = 35.7% R-sq(adj) = 34.4%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	5	11946.0	2389.2	26.87	0.000
Error	242	21518.0	88.9		
Total	247	33464.0			

Table D-81 Stepwise regression of number of institutional investor organisations represented at meetings (INVESTORS) with critical F value reduced to 2

STEPWISE REGRESSION OF INVESTORS ON 17 PREDICTORS, WITH N = 237 N(CASES WITH MISSING OBS.) = 88 N(ALL CASES) = 325					
STEP	1	2	3		
CONSTANT	-36.031	-22.973	-4.422		
LOGTAVMV	26.9	20.5	20.6		
T-RATIO	8.87	5.68	5.71		
LOGLIST		31	32		
T-RATIO		3.10	3.12		
SQRTIG			-1.17		
T-RATIO			-1.42		
S	27.3	26.8	26.7		
R-SQ	25.06	28.02	28.64		
The regression equation is INVESTORS = - 1.0 + 19.1 LOGTAVMV + 32.4 LOGLIST - 1.21 SQRTIG					
253 cases used 72 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	-1.05	15.21	-0.07	0.945	
LOGTAVMV	19.129	3.396	5.63	0.000	
LOGLIST	32.413	9.583	3.38	0.001	
SQRTIG	-1.2099	0.8083	-1.50	0.136	
s = 26.19 R-sq = 28.2% R-sq(adj) = 27.3%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	3	67007	22336	32.57	0.000
Error	249	170744	686		
Total	252	237752			

Appendix E Tables of results on telephone conversations, company feedback on analysts' reports and mailing information

- E-1 Does company engage in telephone conversations with sell-side analysts?
- E-2 Does company engage in telephone conversations with buy-side analysts and fund managers?
- E-3 Does the Chairman - Non-executive answer telephone enquiries from analysts and fund managers?
- E-4 Does the Chief Executive answer telephone enquiries from analysts and fund managers?
- E-5 Does the Managing Director answer telephone enquiries from analysts and fund managers?
- E-6 Does the Finance Director answer telephone enquiries from analysts and fund managers?
- E-7 Does the Marketing Director answer telephone enquiries from analysts and fund managers?
- E-8 Does the Company Secretary answer telephone enquiries from analysts and fund managers?
- E-9 Does the Chief Accountant answer telephone enquiries from analysts and fund managers?
- E-10 Does the Investor Relations Officer answer telephone enquiries from analysts and fund managers?
- E-11 Does the Head of Public Relations answer telephone enquiries from analysts and fund managers?
- E-12 Does the External Financial Public Relations Consultant answer telephone enquiries from analysts and fund managers?
- E-13 Does the company keep a written record of the contents of these telephone conversations?
- E-14 No record is made
- E-15 Number of reports produced by analysts in past 12 months
- E-16 Number of reports passed to company for comment in past 12 months
- E-17 Analysts' reports are never received
- E-18 Feedback is never provided
- E-19 Factual errors relating to published information are corrected
- E-20 Comments are offered on the accuracy of analysts' predictions

- E-21 Company policy when asked to comment on analysts' profit forecasts
- E-22 If a forecast is reasonable no comment is made
- E-23 If a forecast is reasonable the company confirms this
- E-24 If a forecast is not reasonable no comment is made
- E-25 If a forecast is not reasonable the company informs the analyst
- E-26 An analyst will be given some guidance regarding the size and direction of the error in his forecast
- E-27 Does the company mail information to sell-side analysts?
- E-28 Does the company mail information to buy-side analysts and fund managers?
- E-29 Number of firms of stockbrokers receiving mailed information
- E-30 Number of institutional investor organisations receiving mailed information
- E-31 Number of other organisations employing analysts receiving mailed information
- E-32 Mailing of annual report
- E-33 Mailing of interim report
- E-34 Mailing of quarterly reports
- E-35 Mailing of Company News Service announcements
- E-36 Mailing of takeover documents
- E-37 Mailing of information brochures
- E-38 Mailing of general press releases
- E-39 Mailing of documents designed for analysts
- E-40 Descriptive statistics for data on analysts' reports
- E-41 Correlations between data on analysts' reports and size of mailing lists
- E-42 Pearson correlation between data on analysts' reports and continuous independent variables
- E-43 Spearman rank correlation between data on analysts' reports and continuous independent variables
- E-44 Kruskal-Wallis tests of association between the number of analysts' reports (REPORTS) produced in the past twelve months and the independent categorical variables
- E-45 Kruskal-Wallis tests of association between the number of analysts' reports passed to company for comment (COMMENT) in

- the past twelve months and the independent categorical variables
- E-46 Stepwise regression of number of analysts' reports produced in past 12m (REPORTS)
- E-47 Multiple regression of number of reports (REPORTS) produced in past 12m using variables identified by stepwise regression
- E-48 Stepwise regression of number of analysts' reports passed to company for comment in past 12m (COMMENT)
- E-49 Multiple regression of number of reports passed to company for comment in the past 12m (COMMENT) using variables identified by stepwise regression
- E-50 Stepwise regression of number of analysts' reports produced in past 12m (REPORTS) with critical F value reduced to 2
- E-51 Stepwise regression of number of analysts' reports passed to company for comment in past 12m (COMMENT) with critical F value reduced to 2
- E-52 Multiple regression of number of reports (REPORTS) produced in past 12m using all independent variables
- E-53 Kruskal-Wallis tests of association on mailing of information to sell-side analysts (MAILING(A)) and the company specific independent continuous variables
- E-54 Kruskal-Wallis tests of association on mailing of information to buy-side analysts and fund managers (MAILING(B)) and the company specific independent continuous variables
- E-55 Chi-square tests of association between mailing of information to sell-side analysts (MAILING(A)) and the independent categorical variables
- E-56 Chi-square tests of association between mailing of information to buy-side analysts and fund managers (MAILING(B)) and the independent categorical variables
- E-57 Descriptive statistics for data on size of mailing lists
- E-58 Pearson correlation of data on size of mailing lists with company specific variables
- E-59 Spearman rank correlation of data on size of mailing lists with company specific variables
- E-60 Kruskal-Wallis tests of association between the number of stockbrokers on the mailing list (BROKERS) and the independent categorical variables

- E-61 Kruskal-Wallis tests of association between the number of institutional investors on the mailing list (INSTINV) and the independent categorical variables
- E-62 Kruskal-Wallis tests of association between the number of other organisations on the mailing list (OTHER) and the independent categorical variables
- E-63 Stepwise regression of number of stockbrokers on mailing list (BROKERS)
- E-64 Multiple regression of number of stockbrokers on mailing list using variables identified by stepwise regression
- E-65 Stepwise regression of number of insitutional investors on mailing list (INSTINV)
- E-66 Multiple regression of number of insitutional investors on mailing list (INSTINV) using variables identified in stepwise regression
- E-67 Stepwise regression of number of other organisations employing analysts (OTHER)
- E-68 Multiple regression of number of other organisations employing analysts (OTHER) on mailing list using variables identified in the stepwise regression
- E-69 Stepwise regression of number of stockbrokers on mailing list (BROKERS) with critical F value reduced to 2
- E-70 Stepwise regression of number of other organisations employing analysts (OTHER)
- E-71 Multiple regression of number of stockbrokers on mailing list (BROKERS) using all variables

Table E-1 Does the company engage in telephone conversations with sell-side analysts?

	COUNT	PERCENT
No	5	1.50
Yes	328	98.50
N=	333	
*=	4	

Table E-2 Does the company engage in telephone conversations with buy-side analysts and fund managers?

	COUNT	PERCENT
No	19	5.69
Yes	315	94.31
N=	334	
*=	3	

Table E-3 Does the Non-executive Chairman answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	111	33.43
Yes	24	7.23
Not applicable	197	59.34
N=	332	
*=	5	

Table E-4 Does the Chief Executive answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	83	25.00
Yes	206	62.05
Not applicable	43	12.95
N=	332	
*=	5	

Table E-5 Does the Managing Director answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	48	14.46
Yes	79	23.80
Not applicable	205	61.75
N=	332	
*=	5	

Table E-6 Does the Finance Director answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	24	7.23
Yes	302	90.96
Not applicable	6	1.81
N=	332	
*=	5	

Table E-7 Does the Marketing Director answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	53	15.96
Yes	12	3.61
Not applicable	267	80.42
N=	332	
*=	5	

Table E-8 Does the Company Secretary answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	265	79.82
Yes	48	14.46
Not applicable	19	5.72
N=	332	
*=	5	

Table E-9 Does the Chief Accountant answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	200	60.24
Yes	26	7.83
Not applicable	106	31.93
N=	332	
*=	5	

Table E-10 Does the Investor Relations Officer answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	17	5.12
Yes	91	27.41
Not applicable	224	67.47
N=	332	
*=	5	

Table E-11 Does the Head of Public Relations answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	66	19.88
Yes	65	19.58
Not applicable	201	60.54
N=	332	
*=	5	

Table E-12 Does the External Financial Public Relations Consultant answer telephone enquiries from analysts and fund managers?

	COUNT	PERCENT
No	183	55.12
Yes	80	24.10
Not applicable	69	20.78
N=	332	
*=	5	

Table E-13 Does the company keep a written record of the contents of these telephone conversations?

	COUNT	PERCENT
No	183	54.95
Yes	150	45.05
N=	333	
*=	4	

Table E-14 No record is made of telephone conversations

	COUNT	PERCENT
No (record made)	134	40.24
Yes (no record)	199	59.76
N=	333	
*=	4	

Table E-15 Number of reports produced by analysts in past 12 months

	COUNT	PERCENT
0-10	118	43.07
11-20	82	29.93
21-30	26	9.49
31-50	30	10.95
51-100	14	5.11
101-350	4	1.46
N=	274	
*=	63	
MEAN 22.28	MEDIAN 12.00	

Table E-16 Number of reports passed to company for comment in past 12 months

	COUNT	PERCENT
0-10	217	76.14
11-20	44	15.44
21-50	24	8.42
N=	285	
*=	52	
MEAN 9.295	MEDIAN 6.000	

Table E-17 Analysts' reports are never received

	COUNT	PERCENT
No	333	99.11
Yes	3	0.89
N=	336	
*=	1	

Table E-18 Feedback is never provided

	COUNT	PERCENT
No	335	99.70
Yes	1	0.30
N=	336	
*=	1	

Table E-19 Factual errors relating to published information are corrected

	COUNT	PERCENT
No	20	5.95
Yes	316	94.05
N=	336	
*=	1	

Table E-20 Comments are offered on the accuracy of analysts' predictions

	COUNT	PERCENT
No	171	50.89
Yes	165	49.11
N=	336	
*=	1	

Table E-21 Company policy when asked to comment on analysts' profit forecasts

	COUNT	PERCENT
Company is never asked for comments	6	1.79
Comments are never made	70	20.83
Comments are made	260	77.38
N=	336	
*=	1	

Table E-22 If a forecast is reasonable no comment is made

	COUNT	PERCENT
No	239	71.34
Yes	96	28.66
N=	335	
*=	2	

Table E-23 If a forecast is reasonable the company confirms this

	COUNT	PERCENT
No	253	75.52
Yes	82	24.48
N=	335	
*=	2	

Table E-24 If a forecast is not reasonable no comment is made

	COUNT	PERCENT
No	331	98.81
Yes	4	1.19
N=	335	
*=	2	

Table E-25 If a forecast is not reasonable the company informs the analyst

	COUNT	PERCENT
No	187	55.82
Yes	148	44.18
N=	335	
*=	2	

Table E-26 An analyst will be given some guidance regarding the size and direction of the error in his forecast

	COUNT	PERCENT
No	156	46.57
Yes	179	53.43
N=	335	
*=	2	

Table E-27 Does the company mail information to sell-side analysts?

	COUNT	PERCENT
No	53	15.73
Yes	284	84.27
N=	337	

Table E-28 Does the company mail information to buy-side analysts and fund managers?

	COUNT	PERCENT
No	68	20.24
Yes	268	79.76
N=	336	
*=	1	

Table E-29 Number of firms of stockbrokers receiving mailed information

	COUNT	PERCENT
1-10	40	17.94
11-20	72	32.29
21-30	56	25.11
31-40	27	12.11
41-50	15	6.73
51-100	10	4.48
101-200	3	1.34
N=	223	
*=	114	
MEAN 27.26	MEDIAN 20.00	

Table E-30 Number of institutional investor organisations receiving mailed information

	COUNT	PERCENT
0-10	37	17.96
11-20	41	19.90
21-30	26	12.62
31-40	19	9.22
41-50	23	11.17
51-100	33	16.02
101-200	16	7.77
201-700	9	4.37
701-4500	2	0.97
N=	206	
*=	131	
MEAN 93.4	MEDIAN 30.0	

Table E-31 Number of other organisations employing analysts receiving mailed information

	COUNT	PERCENT
0	168	79.25
1-10	16	7.55
11-20	13	6.13
21-50	8	3.77
51-400	7	3.30
N=	212	
*=	125	
MEAN 8.88	MEDIAN 0.00	

Table E-32 Mailing of annual report

	COUNT	PERCENT
No	1	0.35
Yes	287	99.65
N=	288	
*=	49	

Table E-33 Mailing of interim report

	COUNT	PERCENT
No	4	1.39
Yes	284	98.61
N=	288	
*=	49	

Table E-34 Mailing of quarterly reports

	COUNT	PERCENT
No	274	95.14
Yes	14	4.86
N=	288	
*=	49	

Table E-35 Mailing of Company News Service announcements

	COUNT	PERCENT
No	82	28.47
Yes	206	71.53
N=	288	
*=	49	

Table E-36 Mailing of takeover documents

	COUNT	PERCENT
No	158	54.86
Yes	130	45.14
N=	288	
*=	49	

Table E-37 Mailing of information brochures

	COUNT	PERCENT
No	155	54.20
Yes	131	45.80
N=	286	
*=	51	

Table E-38 Mailing of general press releases

	COUNT	PERCENT
No	127	44.10
Yes	161	55.90
N=	288	
*=	49	

Table E-39 Mailing of documents designed for analysts

	COUNT	PERCENT
No	220	76.39
Yes	68	23.61
N=	288	
*=	49	

Table E-40 Descriptive statistics for data on analysts' reports

	N	N*	MEAN	MEDIAN
REPORTS	265	60	22.26	12.00
COMMENT	276	49	9.417	6.000
LOGT(REPORTS)	265	60	1.1858	1.1139
LOGT(COMMENT)	276	49	0.9050	0.8451

	TRMEAN	STDEV	SEMEAN
REPORTS	17.72	31.44	1.93
COMMENT	8.464	8.279	0.498
LOGT(REPORTS)	1.1723	0.3687	0.0226
LOGT(COMMENT)	0.9059	0.3140	0.0189

	MIN	MAX	Q1	Q3	TEST
REPORTS	0.00	350.00	6.00	25.00	0.715
COMMENT	0.000	50.000	4.000	10.000	0.899
LOGT (REPORTS)	.0000	2.5453	0.8451	1.4150	0.988
LOGT (COMMENT)	.0000	1.7076	0.6990	1.0414	0.991

KEY:

REPORTS = number of reports on company produced by sell-side analysts in past 12m

COMMENT = number of reports passed to company for comment in past 12m

TEST = Minitab's correlation test for normality

Table E-41 Correlations between data on analysts' reports and size of mailing listsPearson correlation - raw data

	REPORTS	COMMENT	BROKERS	INSTINV
COMMENT	0.426			
BROKERS	0.301	0.266		
INSTINV	0.196	0.020	0.320	
OTHER	0.157	0.034	0.232	0.114

Pearson correlation - transformed data

	REPORTS	COMMENT	BROKERS	INSTINV
COMMENT	0.611			
BROKERS	0.516	0.323		
INSTINV	0.014	0.152	0.144	
OTHER	0.057	0.023	0.128	0.130

Spearman rank correlation

	REPORTS	COMMENT	BROKERS	INSTINV
COMMENT	0.657			
BROKERS	0.548	0.375		
INSTINV	0.291	0.288	0.493	
OTHER	-0.038	0.007	0.058	0.142

KEY:

REPORTS = number of reports on company produced by sell-side analysts in past 12m

COMMENT = number of reports passed to company for comment in past 12m

BROKERS = number of stockbrokers on mailing list

INSTINV = number of insitutional investors on mailing list

OTHER = number of other institutions employing analysts on mailing list

Table E-42 Pearson correlation between data on analysts' reports and continuous independent variables

	REPORTS	COMMENT
SIZE		
AV(MV)	0.335**	0.326**
LOGTAVMV	0.494**	0.477**
MARKETABILITY		
LISTINGS	0.349**	0.278**
LOGLIST	0.404**	0.340**
TRADFREQ	-0.153*	-0.179**
LOGTRADF	-0.219**	-0.238**
RISK		
BETA	0.012	0.021
VARIAB	-0.211**	-0.141*
SQRTVAR	-0.215**	-0.142*
SPECRISK	-0.269**	-0.189**
LOGTSRSK	-0.319**	-0.210**
PROFITABILITY		
707ROCE	-0.015	0.014
711TPM	0.030	-0.019
716PTPM	-0.040	-0.023
703ROSC	-0.033	-0.025
GEARING		
731CGEAR	0.031	0.078
732IGEAR	0.003	-0.040
SQRTIG	0.012	-0.054
733BR	0.062	0.024
SQRTBR	0.077	0.030
TAKEOVER ACTIVITY		
TAKEOVER	0.085	0.055
LOGTAKEO	0.065	0.038
SHAREHOLDER DETAILS		
BFA%	-0.160**	-0.142*
NEGRBFA%	-0.283**	-0.215**
TOTSSH	-0.203**	-0.229**
SQRTOTSH	-0.201**	-0.238**
NOOFSSH	-0.232**	-0.260**

KEY:

** = significant at at least the .01 level (two-tail test)

* = significant at the .05 level (two-tail test)

Table E-43 Spearman rank correlation between data on analysts' reports and continuous independent variables

	REPORTS	COMMENT
SIZE		
AV(MV)	0.634**	0.462**
MARKETABILITY		
LISTING	0.416**	0.328**
TRADFREQ	-0.475**	-0.342**
RISK		
BETA	0.057	0.054
VARIAB	-0.262**	-0.096
SPECRISK	-0.391**	-0.170**
PROFITABILITY		
707ROCE	-0.119	-0.035
711TPM	0.087	-0.017
716PTPM	-0.058	-0.050
703ROSC	-0.011	0.001
GEARING		
731CG	0.112	0.089
732IG	0.115	0.087
733BR	0.223**	0.108
TAKEOVER ACTIVITY		
TAKEOVER	0.026	-0.023
SHAREHOLDER DETAILS		
BFA%	-0.348**	-0.202**
TOTSSH	-0.312**	-0.215**
NOOFSSH	-0.331**	-0.233**

KEY:

** = significant at at least the .01 level (two-tail test)

* = significant at the .05 level (two-tail test)

Table E-44 Kruskal-Wallis tests of association between the number of analysts' reports (REPORTS) produced in the past twelve months and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
OSEALIST	0	211	11.00	117.3	-6.60	43.88	0.000
	1	54	32.50	194.4	6.60		
TFCAT	0	167	20.000	159.4	7.71	59.87	0.000
	1	96	8.000	84.3	-7.71		
ALPHA	1	226	15.000	142.3	5.11	26.31	0.000
	2	38	6.000	73.9	-5.11		
4WAYINDC	1	74	12.00	119.9	-1.73	7.08	0.070
	2	85	12.00	128.8	-0.61		
	3	71	15.00	138.4	0.69		
	4	35	20.00	159.8	2.22		
SSH(Y/N)	0	75	20.00	152.7	2.71	7.41	0.007
	1	189	12.00	124.5	-2.71		

Table E-45 Kruskal-Wallis tests of association between the number of analysts' reports passed to company for comment (COMMENT) in the past twelve months and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
OSEALIST	0	224	6.000	126.3	-5.27	28.08	0.000
	1	52	10.000	191.0	5.27		
TFCAT	0	172	10.000	158.6	5.72	33.05	0.000
	1	102	5.000	102.0	-5.72		
ALPHA	1	232	6.000	145.7	3.71	13.90	0.000
	2	43	4.000	96.7	-3.71		
4WAYINDC	1	79	6.000	131.8	-0.88	3.94	0.269
	2	89	6.000	144.3	0.84		
	3	71	6.000	148.0	1.16		
	4	37	5.000	120.6	-1.47		
SSH(Y/N)	0	77	8.000	150.6	1.63	2.69	0.101
	1	198	6.000	133.1	-1.63		

KEY:

* = p value adjusted for ties

Table E-46 Stepwise regression of number of analysts' reports produced in past 12m (REPORTS)

STEPWISE REGRESSION OF REPORTS ON 17 PREDICTORS, WITH N = 227 N(CASES WITH MISSING OBS.) = 98 N(ALL CASES) = 325			
STEP	1	2	3
CONSTANT	-26.43	-15.48	-15.86
LOGTAVMV	18.5	13.1	13.1
T-RATIO	10.56	6.10	6.15
LOGLIST		23.2	22.4
T-RATIO		4.03	3.94
LOGTAKEO			36
T-RATIO			2.55
S	15.5	15.0	14.8
R-SQ	33.14	37.66	39.43

Table E-47 Multiple regression of number of reports (REPORTS) produced in past 12m using variables identified by stepwise regression

The regression equation is

REPORTS = - 31.5 + 20.5 LOGTAVMV + 23.4 LOGLIST + 20.9 LOGTAKEO

265 cases used 60 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-31.507	8.343	-3.78	0.000
LOGTAVMV	20.511	3.482	5.89	0.000
LOGLIST	23.369	9.524	2.45	0.015
LOGTAKEO	20.94	24.60	0.85	0.395

s = 27.13 R-sq = 26.3% R-sq(adj) = 25.5%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	68743	22914	31.12	0.000
Error	261	192150	736		
Total	264	260893			

SOURCE	DF	SEQ SS
LOGTAVMV	1	63636
LOGLIST	1	4572
LOGTAKEO	1	534

Table E-48 Stepwise regression of number of analysts' reports passed to company for comment in past 12m (COMMENT)

STEPWISE REGRESSION OF COMMENT ON 17 PREDICTORS, WITH N = 239 N(CASES WITH MISSING OBS.) = 86 N(ALL CASES) = 325	
STEP	1
CONSTANT	-6.524
LOGTAVMV	6.48
T-RATIO	8.49
S	6.76
R-SQ	23.32

Table E-49 Multiple regression of number of reports passed to company for comment in the past 12m (COMMENT) using variables identified by stepwise regression

The regression equation is
COMMENT = - 7.10 + 6.64 LOGTAVMV

276 cases used 49 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-7.100	1.892	-3.75	0.000
LOGTAVMV	6.6449	0.7406	8.97	0.000

s = 7.291 R-sq = 22.7% R-sq(adj) = 22.4%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	4280.1	4280.1	80.51	0.000
Error	274	14567.0	53.2		
Total	275	18847.1			

Table E-50 Stepwise regression of number of analysts' reports produced in past 12m (REPORTS) with critical F value reduced to 2

STEPWISE REGRESSION OF REPORTS ON 17 PREDICTORS, WITH N = 227 N(CASES WITH MISSING OBS.) = 98 N(ALL CASES) = 325					
STEP	1	2	3	4	5
CONSTANT	-26.430	-15.477	-15.856	-9.027	-7.595
LOGTAVMV	18.5	13.1	13.1	11.8	10.0
T-RATIO	10.56	6.10	6.15	5.38	4.28
LOGLIST		23.2	22.4	22.7	22.6
T-RATIO		4.03	3.94	4.02	4.03
LOGTAKEO			36	34	33
T-RATIO			2.55	2.45	2.41
SQRTOTSH				-1.01	-1.11
T-RATIO				-1.99	-2.20
NEGRBFA%					-6.2
T-RATIO					-2.11
S	15.5	15.0	14.8	14.7	14.6
R-SQ	33.14	37.66	39.43	40.50	41.67

The regression equation is
REPORTS = - 25.7 + 17.4 LOGTAVMV + 24.0 LOGLIST + 20.3 LOGTAKEO
- 0.723 SQRTOTSH - 7.91 NEGRBFA%

264 cases used 61 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-25.72	10.22	-2.52	0.012
LOGTAVMV	17.383	3.944	4.41	0.000
LOGLIST	24.020	9.540	2.52	0.012
LOGTAKEO	20.29	24.61	0.82	0.410
SQRTOTSH	-0.7233	0.8273	-0.87	0.383
NEGRBFA%	-7.908	5.040	-1.57	0.118

s = 27.13 R-sq = 27.1% R-sq(adj) = 25.7%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	5	70662	14132	19.20	0.000
Error	258	189932	736		
Total	263	260594			

Table E-51 Stepwise regression of number of analysts' reports passed to company for comment in past 12m (COMMENT) with critical F value reduced to 2

STEPWISE REGRESSION OF COMMENT ON 17 PREDICTORS, WITH N = 239 N(CASES WITH MISSING OBS.) = 86 N(ALL CASES) = 325			
STEP	1	2	3
CONSTANT	-6.524	-6.903	-4.327
LOGTAVMV	6.48	6.52	6.07
T-RATIO	8.49	8.59	7.59
731CGEAR		0.0078	0.0072
T-RATIO		1.95	1.80
SQRTOTSH			-0.39
T-RATIO			-1.73
S	6.76	6.73	6.70
R-SQ	23.32	24.53	25.49

The regression equation is
COMMENT = - 5.62 + 6.47 LOGTAVMV + 0.00713 731CGEAR
- 0.299 SQRTOTSH

264 cases used 61 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	-5.616	2.434	-2.31	0.022
LOGTAVMV	6.4718	0.7984	8.11	0.000
731CGEAR	0.007127	0.004319	1.65	0.100
SQRTOTSH	-0.2991	0.2206	-1.36	0.176

s = 7.230 R-sq = 24.8% R-sq(adj) = 23.9%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	4485.8	1495.3	28.60	0.000
Error	260	13591.4	52.3		
Total	263	18077.3			

Table E-52 Multiple regression of number of reports (REPORTS) produced in past 12m using all independent variables

The regression equation is
REPORTS = 10.6 + 8.26 LOGTAVMV + 22.3 LOGLIST - 13.2 LOGTRADF
- 8.4 BETA + 5.67 SQRTVAR - 33.2 LOGTSRSK
- 0.0050 707ROCE - 0.095 711TPM + 0.095 716PTPM
- 0.0003 703ROSC + 0.0058 731CGEAR - 0.334 SQRTIG
+ 4.54 SQRTBR + 30.4 LOGTAKEO - 6.02 NEGRBFA%
- 1.78 SQRTOTSH + 1.39 NOOFSSH + 1.53 INDC2 + 3.98 INDC3
+ 9.29 INDC4

227 cases used 98 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	10.58	25.67	0.41	0.681
LOGTAVMV	8.259	3.262	2.53	0.012
LOGLIST	22.262	5.968	3.73	0.000
LOGTRADF	-13.19	11.93	-1.11	0.270
BETA	-8.41	10.23	-0.82	0.412
SQRTVAR	5.672	7.203	0.79	0.432
LOGTSRSK	-33.18	34.89	-0.95	0.343
707ROCE	-0.00496	0.03999	-0.12	0.901
711TPM	-0.0950	0.1357	-0.70	0.484
716ADJ	0.0948	0.1503	0.63	0.529
703ROSC	-0.00032	0.05181	-0.01	0.995
731CGEAR	0.00582	0.01292	0.45	0.653
SQRTIG	-0.3339	0.5357	-0.62	0.534
SQRTBR	4.540	4.247	1.07	0.286
LOGTAKEO	30.44	14.19	2.15	0.033
NEGRBFA%	-6.018	3.137	-1.92	0.056
SQRTOTSH	-1.7786	0.9304	-1.91	0.057
NOOFSSH	1.393	1.326	1.05	0.295
INDC2	1.528	2.643	0.58	0.564
INDC3	3.975	2.871	1.38	0.168
INDC4	9.289	4.824	1.93	0.056

s = 14.76 R-sq = 44.4% R-sq(adj) = 39.0%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	20	35885.3	1794.3	8.23	0.000
Error	206	44905.7	218.0		
Total	226	80791.0			

Table E-53 Kruskal-Wallis tests of association on mailing of information to sell-side analysts (MAILING(A)) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	52	124.1	119.7	-3.63	13.16	0.000
	1	273	322.3	171.3	3.63		
MARKETABILITY							
LISTINGS	0	52	0.00E+00	144.5	-1.55	5.25	0.022
	1	273	0.00E+00	166.5	1.55		
TRADFREQ	0	51	2.00E-01	209.1	3.98		
	1	271	0.00E+00	152.5	-3.98		
RISK							
BETA	0	50	0.9750	132.7	-1.93	3.71	0.054
	1	259	1.0300	159.3	1.93		
VARIAB	0	50	33.75	156.0	0.08		
	1	259	33.40	154.8	-0.08		
SPECRISK	0	50	25.70	168.2	1.14	1.30	0.254
	1	259	23.90	152.4	-1.14		
PROFITABILITY							
707ROCE	0	49	18.45	165.7	0.82	0.67	0.413
	1	262	16.27	154.2	-0.82		
711TPM	0	47	10.22	125.9	-1.93		
	1	248	12.60	152.2	1.93		
716PTPM	0	47	6.670	143.1	-1.00	0.99	0.320
	1	262	8.350	157.1	1.00		
703ROSC	0	49	11.40	158.7	-0.02		
	1	268	12.90	159.0	0.02		
GEARING							
731CGEAR	0	49	30.27	146.6	-0.83	0.70	0.405
	1	263	30.59	158.3	0.83		
732IGEAR	0	47	17.49	154.4	0.16		
	1	257	17.84	152.2	-0.16		
733BR	0	49	0.3600	140.4	-1.58	2.50	0.114
	1	269	0.4300	163.0	1.58		
TAKEOVER ACTIVITY							
TAKEOVER	0	52	0.00E+00	169.4	0.54	2.71	0.100
	1	273	0.00E+00	161.8	-0.54		
SHAREHOLDER DETAILS							
BFA%	0	52	0.6000	173.0	0.88	0.78	0.378
	1	272	0.3000	160.5	-0.88		
TOTSSH	0	52	14.95	175.2	1.06		
	1	272	12.98	160.1	-1.06		
NOOFSSH	0	52	1.500	176.8	1.20	1.52	0.218
	1	272	1.000	159.8	-1.20		

KEY: MAILING(A) coding of level, 0 = no mailing to sell-side analysts,
1 = information is mailed to sell-side analysts

* = p value adjusted for ties

Table E-54 Kruskal-Wallis tests of association on mailing of information to buy-side analysts and fund managers (MAILING(B)) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	65	128.2	128.5	-3.27	10.69	0.001
	1	259	322.6	171.0	3.27		
MARKETABILITY							
LISTINGS	0	65	0.00E+00	144.4	-1.74	6.65	0.010
	1	259	0.00E+00	167.0	1.74		
TRADFREQ	0	65	2.00E-01	197.7	3.57		
	1	256	0.00E+00	151.7	-3.57		
RISK							
BETA	0	64	0.9750	136.4	-1.83	3.34	0.068
	1	244	1.0300	159.2	1.83		
VARIAB	0	64	34.25	160.9	0.64		
	1	244	33.30	152.8	-0.64		
SPECRISK	0	64	26.10	170.8	1.64	2.70	0.101
	1	244	23.55	150.2	-1.64		
PROFITABILITY							
707ROCE	0	62	18.35	162.0	0.64	0.41	0.522
	1	248	16.33	153.9	-0.64		
711TPM	0	59	11.01	130.2	-1.80		
	1	236	12.60	152.5	1.80		
716PTPM	0	60	6.570	143.5	-1.11	1.23	0.268
	1	249	8.350	157.8	1.11		
703ROSC	0	62	11.32	155.3	-0.31		
	1	254	12.95	159.3	0.31		
GEARING							
731CGEAR	0	62	28.34	145.7	-1.01	1.01	0.315
	1	249	30.89	158.6	1.01		
732IGEAR	0	60	17.54	157.1	0.46		
	1	244	17.72	151.4	-0.46		
733BR	0	62	0.3650	142.2	-1.61	2.58	0.108
	1	255	0.4400	163.1	1.61		
TAKEOVER ACTIVITY							
TAKEOVER	0	65	0.00E+00	166.4	0.38	1.32	0.250
	1	259	0.00E+00	161.5	-0.38		
SHAREHOLDER DETAILS							
BFA%	0	65	0.5000	174.2	1.18	1.39	0.238
	1	258	0.3050	158.9	-1.18		
TOTSSH	0	65	15.00	174.5	1.21		
	1	258	12.95	158.8	-1.21		
NOOFSSH	0	65	2.000	176.9	1.44	2.20	0.139
	1	258	1.000	158.2	-1.44		

KEY:MAILING(B) coding of level, 0 = no mailing to sell-side analysts,
1 = information is mailed to sell-side analysts

* = p value adjusted for ties

Table E-55 Chi-square tests of association between mailing of information to sell-side analysts (MAILING(A)) and the independent categorical variables

STD RESIDUALS: ROWS: MAILING(A) COLUMNS: OSEALIST

	NO	YES
0	0.86	-1.81
1	-0.38	0.79

CHI-SQUARE = 4.769 WITH D.F. = 1 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: MAILING(A) COLUMNS: TFCAT

	HIGH	LOW
0	-2.56	3.41
1	1.11	-1.48

CHI-SQUARE = 21.629 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS: ROWS: MAILING(A) COLUMNS: ALPHA

	ALPHA	BETA
0	-0.97	2.35
1	0.42	-1.03

CHI-SQUARE = 7.700 WITH D.F. = 1 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS: ROWS: MAILING(A) COLUMNS: 4WAYINDC

	1	2	3	4
0	0.67	0.04	-1.21	0.60
1	-0.29	-0.02	0.53	-0.26

CHI-SQUARE = 2.723 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: MAILING(A) COLUMNS: SSH(Y/N)

	NO	YES
0	-0.32	0.21
1	0.14	-0.09

CHI-SQUARE = 0.172 WITH D.F. = 1 (NOT SIGNIFICANT)

KEY:

MAILING(A) coding of rows, 0 = no mailing to sell-side analysts, 1 = information is mailed to sell-side analysts

Table E-56 Chi-square tests of association between mailing of information to buy-side analysts and fund managers (MAILING(B)) and the independent categorical variables

STD RESIDUALS: ROWS: MAILING(B) COLUMNS: OSEALIST

	NO	YES
0	0.97	-2.03
1	-0.48	1.02

CHI-SQUARE = 6.316 WITH D.F. = 1 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS: ROWS: MAILING(B) COLUMNS: TFCAT

	HIGH	LOW
0	-2.25	2.99
1	1.13	-1.51

CHI-SQUARE = 17.601 WITH D.F. = 1 (SIGNIFICANT AT THE .001 LEVEL)

STD RESIDUALS: ROWS: MAILING(B) COLUMNS: ALPHA

	ALPHA	BETA
0	-0.61	1.48
1	0.31	-0.74

CHI-SQUARE = 3.195 WITH D.F. = 1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: MAILING(B) COLUMNS: 4WAYINDC

	1	2	3	4
0	1.08	0.26	-2.16	0.99
1	-0.54	-0.13	1.08	-0.50

CHI-SQUARE = 8.582 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: MAILING(B) COLUMNS: SSH(Y/N)

	NO	YES
0	-0.48	0.31
1	0.24	-0.16

CHI-SQUARE = 0.416 WITH D.F. = 1 (NOT SIGNIFICANT)

KEY:

MAILING(B) coding of rows, 0 = no mailing to sell-side analysts, 1 = information is mailed to sell-side analysts

Table E-57 Descriptive statistics for data on size of mailing lists

	N	N*	MEAN	MEDIAN
BROKERS	215	110	26.91	20.00
INSTINV	198	127	94.9	30.0
OTHER	205	120	9.18	0.00
LOGT(BROKERS)	215	110	1.3290	1.3010
NEGR(INSTINV)	198	127	-0.1069	-0.0323
LOGT(OTHER)	205	120	0.2904	0.0000

	TRMEAN	STDEV	SEMEAN
BROKERS	24.37	21.93	1.50
INSTINV	50.3	355.9	25.3
OTHER	2.87	37.11	2.59
LOGT(BROKERS)	1.3363	0.3062	0.0209
NEGR(INSTINV)	-0.0626	0.2518	0.0179
LOGT(OTHER)	0.2118	0.5971	0.0417

	MIN	MAX	Q1	Q3	TEST
BROKERS	1.00	200.00	15.00	30.00	0.828
INSTINV	0.0	4500.0	20.0	76.3	0.430
OTHER	0.00	400.00	0.00	0.00	0.682
LOGT(BROKERS)	0.0000	2.3010	1.1761	1.4771	0.988
NEGR(INSTINV)	-1.0000	-0.0002	-0.0476	-0.0130	0.998
LOGT(OTHER)	0.0000	2.6031	0.0000	0.0000	0.985

KEY:

BROKERS = Number of stockbrokers receiving information from company by mail

INSTINV = Number of institutional investors receiving information from company by mail

OTHER = Number of other organisations receiving information from company by mail

TEST = Minitab's correlation test for normality

Table E-58 Pearson correlation of data on size of mailing lists with company specific variables

	BROKERS	INSTINV	OTHER
SIZE			
AV(MV)	0.487**	0.186**	0.134
LOGTAVMV	0.528**	0.203**	0.156*
MARKETABILITY			
LISTINGS	0.636**	0.268**	0.318**
LOGLIST	0.575**	0.269**	0.288**
TRADFREQ	-0.158*	-0.052	-0.028
LOGTRADF	-0.225**	-0.076	-0.039
RISK			
BETA	0.125	0.082	0.097
VARIAB	-0.103	-0.058	-0.013
SQRTVAR	-0.097	-0.053	-0.008
SPECRISK	-0.191**	-0.110	-0.063
LOGTSRSK	-0.214**	-0.123	-0.070
PROFITABILITY			
707ROCE	-0.027	-0.010	-0.011
711TPM	-0.101	-0.077	-0.001
716PTPM	-0.118	-0.083	-0.033
703ROSC	-0.051	-0.009	-0.024
GEARING			
731CGEAR	0.069	0.014	-0.011
732IGEAR	-0.031	-0.010	0.020
SQRTIG	-0.058	-0.012	0.034
733BR	0.109	0.059	-0.007
SQRTBR	0.100	0.059	0.001
TAKEOVER ACTIVITY			
TAKEOVER	0.047	0.481**	0.020
LOGTAKEO	0.045	0.432**	0.027
SHAREHOLDER DETAILS			
BFA%	-0.208**	-0.067	-0.064
NEGRBFA%	-0.246**	-0.132	-0.088
TOTSSH	-0.242**	-0.086	-0.088
SQRTOTSH	-0.276**	-0.078	-0.099
NOOFSSH	-0.288**	-0.067	-0.073

KEY:

** = Significant at at least the .01 level (two tail test)

* = Significant at the .05 level (two tail test)

Table E-59 Spearman rank correlation of data on size of mailing lists with company specific variables

	BROKERS	INSTINV	OTHER
SIZE			
AV(MV)	0.565**	0.336**	-0.031
MARKETABILITY			
LISTING	0.456**	0.406**	0.041
TRADFREQ	-0.428**	-0.275**	0.062
RISK			
BETA	0.163*	0.195**	0.101
VARIAB	-0.105	-0.088	0.090
SPECRISK	-0.242**	-0.233**	0.066
PROFITABILITY			
707ROCE	-0.058	0.021	-0.022
711TPM	-0.123	-0.098	0.009
716PTPM	-0.155*	-0.071	-0.026
703ROSC	-0.014	0.072	-0.034
GEARING			
731CG	0.186**	0.094	0.003
732IG	0.135	0.002	0.068
733BR	0.258**	0.116	-0.020
TAKEOVER ACTIVITY			
TAKEOVER	0.104	0.050	0.034
SHAREHOLDER DETAILS			
BFA%	-0.293**	-0.151*	-0.062
TOTSSH	-0.323**	-0.239**	-0.003
NOOFSSH	-0.344**	-0.231**	0.042

KEY:

** = Significant at at least the .01 level (two tail test)

* = Significant at the .05 level (two tail test)

Table E-60 Kruskal-Wallis tests of association between the number of stockbrokers on the mailing list (BROKERS) and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
OSEALIST	0	168	20.00	93.3	-6.57	43.67	0.000
	1	47	35.00	160.7	6.57		
TFCAT	0	147	25.00	124.1	6.05	37.11	0.000
	1	66	14.00	68.8	-6.05		
ALPHA	1	185	25.00	114.1	3.94	15.70	0.000
	2	29	12.00	65.4	-3.94		
4WAYINDC	1	64	20.00	102.2	-0.89	5.01	0.172
	2	69	25.00	115.0	1.13		
	3	58	20.00	98.4	-1.38		
	4	24	27.50	126.6	1.55		
SSH(Y/N)	0	60	30.00	129.9	3.30	11.03	0.001
	1	154	20.00	98.8	-3.30		

KEY:

* = p value adjusted for ties

Table E-61 Kruskal-Wallis tests of association between the number of institutional investors on the mailing list (INSTINV) and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
OSEALIST	0	156	30.00	87.7	-5.57	31.22	0.000
	1	42	85.00	143.2	5.57		
TFCAT	0	133	50.00	109.2	3.82	14.69	0.000
	1	63	20.00	76.0	-3.82		
ALPHA	1	170	37.50	101.2	1.34	1.81	0.179
	2	27	25.00	85.3	-1.34		
4WAYINDC	1	56	30.00	87.9	-1.79	3.45	0.328
	2	63	40.00	106.5	1.17		
	3	57	35.00	102.5	0.47		
	4	22	36.00	101.3	0.15		
SSH(Y/N)	0	53	40.00	111.8	1.92	3.70	0.055
	1	144	30.00	94.3	-1.92		

KEY:

* = p value adjusted for ties

Table E-62 Kruskal-Wallis tests of association between the number of other organisations on the mailing list (OTHER) and the independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE RANK	Z VALUE	H	p*
OSEALIST	0	158	0.00E+00	102.5	-0.24	0.11	0.738
	1	47	0.00E+00	104.8	0.24		
TFCAT	0	141	0.00E+00	100.8	-0.63	0.78	0.376
	1	63	0.00E+00	106.4	0.63		
ALPHA	1	179	0.00E+00	103.8	0.49	0.48	0.488
	2	26	0.00E+00	97.6	-0.49		
4WAYINDC	1	64	0.00E+00	97.6	-0.88	2.55	0.467
	2	60	0.00E+00	107.2	0.65		
	3	56	0.00E+00	107.0	0.59		
	4	25	0.00E+00	97.8	-0.47		
SSH(Y/N)	0	61	0.00E+00	101.7	-0.21	0.09	0.767
	1	144	0.00E+00	103.6	0.21		

KEY:

* = p value adjusted for ties

Table E-63 Stepwise regression of number of stockbrokers on mailing list (BROKERS)

STEPWISE REGRESSION OF BROKERS ON 17 PREDICTORS, WITH N = 187 N(CASES WITH MISSING OBS.) = 138 N(ALL CASES) = 325				
STEP	1	2	3	4
CONSTANT	20.640	-6.839	4.341	4.522
LOGLIST	61.0	41.6	42.8	41.9
T-RATIO	9.91	5.57	5.79	5.72
LOGTAVMV		11.8	9.7	10.6
T-RATIO		4.22	3.40	3.70
SQRTOTSH			-1.68	-1.44
T-RATIO			-2.55	-2.18
716PTPM				-0.28
T-RATIO				-2.13
S	18.5	17.7	17.5	17.3
R-SQ	34.68	40.45	42.50	43.90

Table E-64 Multiple regression of number of stockbrokers on mailing list using variables identified by stepwise regression

The regression equation is
BROKERS = 7.22 + 42.0 LOGLIST + 8.64 LOGTAVMV - 1.23 SQRTOTSH
- 0.211 716PTPM

207 cases used 118 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	7.222	7.363	0.98	0.328
LOGLIST	42.005	6.809	6.17	0.000
LOGTAVMV	8.637	2.587	3.34	0.001
SQRTOTSH	-1.2265	0.6194	-1.98	0.049
716PTPM	-0.2111	0.1244	-1.70	0.091

s = 17.05 R-sq = 41.2% R-sq(adj) = 40.0%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	41056	10264	35.32	0.000
Error	202	58703	291		
Total	206	99759			

Table E-65 Stepwise regression of number of insitutional investors on mailing list (INSTINV)

STEPWISE REGRESSION OF INSTINV ON 17 PREDICTORS, WITH N = 170 N(CASES WITH MISSING OBS.) = 155 N(ALL CASES) = 325		
STEP	1	2
CONSTANT	60.52	25.20
LOGTAKEO	2599	2516
T-RATIO	6.87	6.86
LOGLIST		382
T-RATIO		3.52
S	336	326
R-SQ	21.92	27.30

Table E-66 Multiple regression of number of insitutional investors on mailing list (INSTINV) using variables identified in stepwise regression

The regression equation is
INSTINV = 26.6 + 2251 LOGTAKEO + 385 LOGLIST

198 cases used 127 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	26.63	24.41	1.09	0.277
LOGTAKEO	2251.4	330.8	6.81	0.000
LOGLIST	385.17	94.48	4.08	0.000

s = 309.7 R-sq = 25.1% R-sq(adj) = 24.3%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	6254428	3127214	32.61	0.000
Error	195	18702382	95910		
Total	197	24956810			

Table E-67 Stepwise regression of number of other organisations employing analysts (OTHER) on mailing list

STEPWISE REGRESSION OF OTHER ON 17 PREDICTORS, WITH N = 178 N(CASES WITH MISSING OBS.) = 147 N(ALL CASES) = 325	
STEP	1
CONSTANT	4.917
LOGLIST	28.6
T-RATIO	3.47
S	25.9
R-SQ	6.40

Table E-68 Multiple regression of number of other organisations employing analysts (OTHER) on mailing list using variables identified in the stepwise regression

The regression equation is
OTHER = 4.12 + 45.0 LOGLIST

205 cases used 120 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	4.123	2.754	1.50	0.136
LOGLIST	45.01	10.51	4.28	0.000

s = 35.63 R-sq = 8.3% R-sq(adj) = 7.8%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	23269	23269	18.33	0.000
Error	203	257667	1269		
Total	204	280936			

Table E-69 Stepwise regression of number of stockbrokers on mailing list (BROKERS) with critical F value reduced to 2

STEPWISE REGRESSION OF BROKERS ON 17 PREDICTORS, WITH N = 187 N(CASES WITH MISSING OBS.) = 138 N(ALL CASES) = 325					
STEP	1	2	3	4	5
CONSTANT	20.640	-6.839	4.341	4.522	22.575
LOGLIST	61.0	41.6	42.8	41.9	42.1
T-RATIO	9.91	5.57	5.79	5.72	5.77
LOGTAVMV		11.8	9.7	10.6	10.8
T-RATIO		4.22	3.40	3.70	3.78
SQRTOTSH			-1.68	-1.44	-1.39
T-RATIO			-2.55	-2.18	-2.11
716ADJ				-0.28	-0.29
T-RATIO				-2.13	-2.22
SQRTIG					-1.18
T-RATIO					-1.69
S	18.5	17.7	17.5	17.3	17.2
R-SQ	34.68	40.45	42.50	43.90	44.77
The regression equation is BROKERS = 24.8 + 41.4 LOGLIST + 9.46 LOGTAVMV - 1.19 SQRTOTSH - 0.249 716PTPM - 1.22 SQRTIG					
201 cases used 124 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	24.83	12.93	1.92	0.056	
LOGLIST	41.377	7.002	5.91	0.000	
LOGTAVMV	9.456	2.694	3.51	0.001	
SQRTOTSH	-1.1911	0.6231	-1.91	0.057	
716PTPM	-0.2492	0.1280	-1.95	0.053	
SQRTIG	-1.2180	0.6846	-1.78	0.077	
s = 17.05 R-sq = 42.8% R-sq(adj) = 41.4%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	5	42464.9	8493.0	29.23	0.000
Error	195	56666.3	290.6		
Total	200	99131.2			

Table E-70 Stepwise regression of number of other organisations employing analysts (OTHER) on mailing list with critical F value reduced to 2

STEPWISE REGRESSION OF OTHER ON 17 PREDICTORS, WITH N = 178 N(CASES WITH MISSING OBS.) = 147 N(ALL CASES) = 325					
STEP	1	2			
CONSTANT	4.917	-9.711			
LOGLIST	28.6	27.8			
T-RATIO	3.47	3.38			
BETA		14.7			
T-RATIO		1.71			
S	25.9	25.7			
R-SQ	6.40	7.94			
The regression equation is OTHER = - 8.3 + 44.5 LOGLIST + 12.7 BETA					
197 cases used 128 cases contain missing values					
Predictor	Coef	Stdev	t-ratio	p	
Constant	-8.32	12.25	-0.68	0.498	
LOGLIST	44.48	10.82	4.11	0.000	
BETA	12.67	11.93	1.06	0.290	
s = 36.29 R-sq = 8.9% R-sq(adj) = 7.9%					
Analysis of Variance					
SOURCE	DF	SS	MS	F	p
Regression	2	24903	12451	9.46	0.000
Error	194	255423	1317		
Total	196	280325			

Table E-71 Multiple regression of number of stockbrokers on mailing list (BROKERS) using all variables

The regression equation is

$$\begin{aligned} \text{BROKERS} = & 9.9 + 11.6 \text{ LOGTAVMV} + 40.2 \text{ LOGLIST} + 5.9 \text{ LOGTRADF} \\ & - 2.9 \text{ BETA} + 7.31 \text{ SQRTVAR} - 29.5 \text{ LOGTSRSK} \\ & + 0.0190 \text{ 707ROCE} - 0.105 \text{ 711TPM} - 0.167 \text{ 716PTPM} \\ & - 0.0772 \text{ 703ROSC} - 0.0123 \text{ 731CGEAR} - 1.32 \text{ SQRTIG} \\ & + 5.03 \text{ SQRTBR} - 21.4 \text{ LOGTAKEO} - 2.79 \text{ NEGRBFA\%} \\ & - 2.60 \text{ SQRTOTSH} + 2.10 \text{ NOOFSSH} + 1.53 \text{ INDC2} \\ & + 3.12 \text{ INDC3} + 4.54 \text{ INDC4} \end{aligned}$$

187 cases used 138 cases contain missing values

Predictor	Coef	Stdev	t-ratio	p
Constant	9.86	36.47	0.27	0.787
LOGTAVMV	11.575	4.213	2.75	0.007
LOGLIST	40.209	8.093	4.97	0.000
LOGTRADF	5.85	13.85	0.42	0.673
BETA	-2.92	13.76	-0.21	0.832
SQRTVAR	7.308	9.496	0.77	0.443
LOGTSRSK	-29.51	45.62	-0.65	0.519
707ROCE	0.01901	0.07402	0.26	0.798
711TPM	-0.1049	0.1745	-0.60	0.549
716PTPM	-0.1672	0.2437	-0.69	0.493
703ROSC	-0.07716	0.07904	-0.98	0.330
731CGEAR	-0.01227	0.04613	-0.27	0.791
SQRTIG	-1.3165	0.7511	-1.75	0.082
SQRTBR	5.026	7.011	0.72	0.474
LOGTAKEO	-21.38	19.57	-1.09	0.276
NEGRBFA%	-2.793	4.294	-0.65	0.516
SQRTOTSH	-2.600	1.224	-2.12	0.035
NOOFSSH	2.102	1.772	1.19	0.237
INDC2	1.530	3.549	0.43	0.667
INDC3	3.125	4.211	0.74	0.459
INDC4	4.537	8.107	0.56	0.576

s = 17.68

R-sq = 46.6%

R-sq(adj) = 40.2%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	20	45303.8	2265.2	7.25	0.000
Error	166	51873.2	312.5		
Total	186	97177.0			

Appendix F Tables of results on close seasons and opinions on company relationship with analysts and fund managers

- F-1 Existence of policy of prohibition or restriction at certain times of the year
- F-2 Communication prohibited or restricted prior to annual results announcement
- F-3 Communication prohibited or restricted prior to the interim results announcement
- F-4 Communication prohibited or restricted prior to the quarterly results announcement
- F-5 Number of days prohibition/restriction prior to annual results announcement
- F-6 Number of days prohibition/restriction prior to interim results announcement
- F-7 Number of days prohibition/restriction prior to quarterly results announcement
- F-8 Rating of general quality of analysts' reports
- F-9 Quality of analysis carried out by sell-side analysts
- F-10 Quality of analysis carried out by buy-side analysts
- F-11 Company meetings with sell-side analysts are a valuable means of communication
- F-12 Company telephone calls with sell-side analysts are a valuable means of communication
- F-13 My company would prefer not to hold sell-side analysts' meetings
- F-14 My company would prefer not to talk to sell-side analysts on the telephone
- F-15 My company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts
- F-16 Sell-side analysts pressurise my company for information
- F-17 Sell-side analysts are too concerned with short term profit opportunities
- F-18 Sell-side analysts are not sufficiently interested in the long term prospects of my company
- F-19 Company meetings with buy-side analysts and fund managers are a valuable means of communication

- F-20 Company telephone calls with buy-side analysts and fund managers are a valuable means of communication
- F-21 My company would prefer not to hold meetings with buy-side analysts and fund managers
- F-22 My company would prefer not to talk to buy-side analysts and fund managers on the telephone
- F-23 My company should not provide buy-side analysts and fund managers with guidance as to future profits
- F-24 Buy-side analysts and fund managers pressurise my company for information
- F-25 Buy-side analysts and fund managers are too concerned with short term profit opportunities
- F-26 Buy-side analysts and fund managers are not sufficiently interested in the long term prospects of my company
- F-27 Kruskal-Wallis tests of association between the existence of a prohibition of communication (PROHIB) and the company specific independent continuous variables
- F-28 Kruskal-Wallis tests of association between the existence of a restriction of communication (RESTRICT) and the company specific independent continuous variables
- F-29 Kruskal-Wallis tests of association between the existence of a close season for communications (SEASON) and the company specific independent continuous variables
- F-30 Chi-square tests of association between the existence of a period of prohibition of communication (PROHIB) and the independent categorical variables
- F-31 Chi-square tests of association between the existence of a period of restriction of communication (RESTRICT) and the independent categorical variables
- F-32 Chi-square tests of association between the existence of a close season for communications (SEASON) and the company specific independent continuous variables
- F-33 Descriptive statistics for data on length of close season
- F-34 Kruskal-Wallis tests of association between length of close season prior to annual results (ANNUAL) and independent categorical variables

- F-35 Kruskal-Wallis tests of association between length of close season prior to interim results (INTERIM) and independent categorical variables
- F-36 Pearson correlation between length of close seasons and independent continuous variables
- F-37 Spearman rank correlation between length of close seasons and independent continuous variables
- F-38 Kruskal-Wallis tests of association between opinion on general quality of analysts' reports (OPINION) and the company specific independent continuous variables
- F-39 Kruskal-Wallis tests of association between opinion on quality of sell-side analysts' reports (SELLSIDE) and the company specific independent continuous variables
- F-40 Chi-square tests of association between opinions on the general quality of analysts reports (OPINION) and the independent categorical variables
- F-41 Chi-square tests of association between opinions on the quality of sell-side analysts reports (SELLSIDE) and the independent categorical variables
- F-42 Kruskal-Wallis tests of association between opinions on sell-side analysts and independent continuous variables
- F-43 Kruskal-Wallis tests of association between opinions on buy-side analysts and fund managers and independent continuous variables

Table F-1 Existence of policy of prohibition or restriction at certain times of the year

	COUNT	PERCENT
Prohibition	151	44.81
Restriction	177	52.52
No prohibition/restriction	31	9.20
N =	337	

Table F-2 Communication prohibited or restricted prior to annual results announcement

	COUNT	PERCENT
Yes	306	100.00
N =	306	
*=	31	

Table F-3 Communication prohibited or restricted prior to the interim results announcement

	COUNT	PERCENT
Yes	306	100.00
N =	306	
*=	31	

Table F-4 Communication prohibited or restricted prior to the quarterly results announcement

	COUNT	PERCENT
No	2	0.65
Yes	17	5.56
N/A	287	93.79
N =	306	
*=	31	

Table F-5 Number of days prohibition/restriction prior to annual results announcement

	COUNT	PERCENT
10-50	35	12.73
51-60	201	73.09
61-80	25	9.09
81-94	14	5.09
N =	275	
*=	62	
MEAN 59.164	MEDIAN 60.000	

Table F-6 Number of days prohibition/restriction prior to interim results announcement

	COUNT	PERCENT
10-50	65	23.90
51-60	193	70.96
61-80	11	4.04
81-90	3	1.10
N =	272	
*=	65	
MEAN 54.485	MEDIAN 60.000	

Table F-7 Number of days prohibition/restriction prior to quarterly results announcement

	COUNT	PERCENT
0-50	14	82.35
60	1	5.88
90	2	11.77
N =	17	
*=	320	
MEAN 36.59	MEDIAN 30.00	

Table F-8 Rating of general quality of analysts' reports

		COUNT	PERCENT
Very poor	1	0	0.00
Poor	2	13	3.93
Acceptable	3	172	51.96
Good	4	139	41.99
Very good	5	7	2.11
	N =	331	
	*=	6	
MEAN 3.4230	MEDIAN 3.0000		

Table F-9 Quality of analysis carried out by sell-side analysts

		COUNT	PERCENT
Very poor	1	1	0.42
Poor	2	16	6.67
Acceptable	3	115	47.92
Good	4	101	42.08
Very good	5	7	2.92
	N =	240	
	*=	97	
MEAN 3.4042		MEDIAN 3.0000	

Table F-10 Quality of analysis carried out by buy-side analysts

		COUNT	PERCENT
Very poor	1	0	0.00
Poor	2	6	3.02
Acceptable	3	114	57.29
Good	4	74	37.19
Very good	5	5	2.51
	N =	199	
	*=	138	
MEAN 3.3920		MEDIAN 3.0000	

Table F-11 Company meetings with sell-side analysts are a valuable means of communication

		COUNT	PERCENT
Strongly agree	1	120	36.04
Agree	2	190	57.06
Uncertain	3	19	5.71
Disagree	4	4	1.20
	N =	333	
	*=	4	
MEAN 1.7207		MEDIAN 2.0000	

Table F-12 Company telephone calls with sell-side analysts are a valuable means of communication

		COUNT	PERCENT
Strongly agree	1	87	26.20
Agree	2	208	62.65
Uncertain	3	27	8.13
Disagree	4	9	2.71
Strongly disagree	5	1	0.30
	N =	332	
	*=	5	
MEAN 1.8825		MEDIAN 2.0000	

Table F-13 My company would prefer not to hold sell-side analysts' meetings

		COUNT	PERCENT
Strongly agree	1	0	0.00
Agree	2	10	3.02
Uncertain	3	14	4.23
Disagree	4	196	59.21
Strongly disagree	5	111	33.53
	N =	331	
	*=	6	
MEAN 4.2326		MEDIAN 4.0000	

Table F-14 My company would prefer not to talk to sell-side analysts on the telephone

		COUNT	PERCENT
Strongly agree	1	1	0.30
Agree	2	18	5.47
Uncertain	3	13	3.95
Disagree	4	197	59.88
Strongly disagree	5	100	30.40
	N =	329	
	*=	8	
MEAN 4.1459		MEDIAN 4.0000	

Table F-15 My company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts

		COUNT	PERCENT
Strongly agree	1	25	7.69
Agree	2	63	19.38
Uncertain	3	45	13.85
Disagree	4	159	48.92
Strongly disagree	5	33	10.15
	N =	325	
	*=	12	
MEAN 3.3446	MEDIAN 4.0000		

Table F-16 Sell-side analysts pressurise my company for information

		COUNT	PERCENT
Strongly agree	1	8	2.45
Agree	2	114	34.86
Uncertain	3	46	14.07
Disagree	4	141	43.12
Strongly disagree	5	18	5.50
	N =	327	
	*=	10	
MEAN 3.1437	MEDIAN 3.0000		

Table F-17 Sell-side analysts are too concerned with short term profit opportunities

		COUNT	PERCENT
Strongly agree	1	35	10.64
Agree	2	159	48.33
Uncertain	3	60	18.24
Disagree	4	70	21.28
Strongly disagree	5	5	1.52
	N =	329	
	*=	8	
MEAN 2.5471		MEDIAN 2.0000	

Table F-18 Sell-side analysts are not sufficiently interested in the long term prospects of my company

		COUNT	PERCENT
Strongly agree	1	19	5.79
Agree	2	111	33.84
Uncertain	3	64	19.51
Disagree	4	120	36.59
Strongly disagree	5	14	4.27
	N =	328	
	*=	9	
MEAN 2.9970		MEDIAN 3.0000	

Table F-19 Company meetings with buy-side analysts and fund managers are a valuable means of communication

		COUNT	PERCENT
Strongly agree	1	174	53.37
Agree	2	141	43.25
Uncertain	3	10	3.07
Disagree	4	0	0.00
Strongly disagree	5	1	0.31
	N =	326	
	*=	11	
MEAN 1.5061		MEDIAN 1.0000	

Table F-20 Company telephone calls with buy-side analysts and fund managers are a valuable means of communication

		COUNT	PERCENT
Strongly agree	1	88	26.99
Agree	2	184	56.44
Uncertain	3	40	12.27
Disagree	4	13	3.99
Strongly disagree	5	1	0.31
	N =	326	
	*=	11	
MEAN 1.9417		MEDIAN 2.0000	

Table F-21 My company would prefer not to hold meetings with buy-side analysts and fund managers

		COUNT	PERCENT
Strongly agree	1	1	0.31
Agree	2	5	1.53
Uncertain	3	6	1.84
Disagree	4	157	48.16
Strongly disagree	5	157	48.16
	N =	326	
	*=	11	
MEAN 4.4233	MEDIAN 4.0000		

Table F-22 My company would prefer not to talk to buy-side analysts and fund managers on the telephone

		COUNT	PERCENT
Strongly agree	1	3	0.93
Agree	2	21	6.50
Uncertain	3	21	6.50
Disagree	4	159	49.23
Strongly disagree	5	119	36.84
	N =	323	
	*=	14	
MEAN 4.1455	MEDIAN 4.0000		

Table F-23 My company should not provide buy-side analysts and fund managers with guidance as to future profits

		COUNT	PERCENT
Strongly agree	1	34	10.59
Agree	2	78	24.30
Uncertain	3	46	14.33
Disagree	4	134	41.74
Strongly disagree	5	29	9.03
	N =	321	
	*=	16	
MEAN 3.1433	MEDIAN 4.0000		

Table F-24 Buy-side analysts and fund managers pressurise my company for information

		COUNT	PERCENT
Strongly agree	1	2	0.62
Agree	2	45	13.89
Uncertain	3	41	12.65
Disagree	4	201	62.04
Strongly disagree	5	35	10.80
	N =	324	
	*=	13	
MEAN 3.6852	MEDIAN 4.0000		

Table F-25 Buy-side analysts and fund managers are too concerned with short term profit opportunities

		COUNT	PERCENT
Strongly agree	1	11	3.37
Agree	2	57	17.48
Uncertain	3	83	25.46
Disagree	4	160	49.08
Strongly disagree	5	15	4.60
	N =	326	
	*=	11	
MEAN 3.3405	MEDIAN 4.0000		

Table F-26 Buy-side analysts and fund managers are not sufficiently interested in the long term prospects of my company

		COUNT	PERCENT
Strongly agree	1	6	1.84
Agree	2	39	11.96
Uncertain	3	66	20.25
Disagree	4	186	57.06
Strongly disagree	5	29	8.90
	N =	326	
	*=	11	
MEAN 3.5920	MEDIAN 4.0000		

Table F-27 Kruskal-Wallis tests of association between the existence of a prohibition of communication (PROHIB) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	179	265.0	160.6	-0.50		
	1	146	259.5	165.9	0.50	0.25	0.614
MARKETABILITY							
LISTINGS	0	179	0.00E+00	162.5	-0.11		
	1	146	0.00E+00	163.6	0.11	0.03	0.871
TRADFREQ	0	177	0.00E+00	160.6	-0.20		
	1	145	0.00E+00	162.6	0.20	0.05	0.819
RISK							
BETA	0	167	1.030	155.7	0.16		
	1	142	1.030	154.1	-0.16	0.03	0.874
VARIAB	0	167	34.40	161.0	1.28		
	1	142	32.65	148.0	-1.28	1.63	0.203
SPECRISK	0	167	25.30	164.0	1.91		
	1	142	22.35	144.5	-1.91	3.66	0.056
PROFITABILITY							
707ROCE	0	170	15.74	151.1	-1.06		
	1	141	17.59	161.9	1.06	1.12	0.289
711TPM	0	164	12.06	147.8	-0.04		
	1	131	12.01	148.2	0.04	0.00	0.965
716PTPM	0	172	8.045	156.8	0.41		
	1	137	8.500	152.7	-0.41	0.16	0.686
703ROSC	0	173	12.20	157.0	-0.42		
	1	144	13.40	161.4	0.42	0.18	0.674
GEARING							
731CGEAR	0	170	26.27	144.9	-2.48		
	1	142	32.96	170.3	2.48	6.14	0.013
732IGEAR	0	169	17.15	148.1	-0.97		
	1	135	18.52	158.0	0.97	0.94	0.332
733BR	0	174	0.3650	149.5	-2.14		
	1	144	0.4800	171.6	2.14	4.58	0.033
TAKEOVER ACTIVITY							
TAKEOVER	0	179	0.00E+00	162.4	-0.12		
	1	146	0.00E+00	163.7	0.12	0.13	0.719
SHAREHOLDER DETAILS							
BFA%	0	178	0.2850	158.7	-0.82		
	1	146	0.4000	167.2	0.82	0.67	0.415
TOTSSH	0	178	12.98	162.9	0.09		
	1	146	13.40	162.0	-0.09	0.01	0.928
NOOFSSH	0	178	1.000	160.2	-0.50		
	1	146	1.000	165.4	0.50	0.26	0.611

KEY:

PROHIB coding of levels, 0 = no prohibition, 1 = yes - a prohibition operates at certain times

* = p value adjusted for ties

Table F-28 Kruskal-Wallis tests of association between the existence of a restriction of communication (RESTRICT) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	151	210.3	155.0	-1.43		
	1	174	333.2	169.9	1.43	2.04	0.154
MARKETABILITY							
LISTINGS	0	151	0.00E+00	155.8	-1.29		
	1	174	0.00E+00	169.2	1.29	3.62	0.057
TRADFREQ	0	149	0.00E+00	172.0	1.88		
	1	173	0.00E+00	152.4	-1.88	4.81	0.029
RISK							
BETA	0	146	1.010	151.8	-0.59		
	1	163	1.030	157.8	0.59	0.35	0.557
VARIAB	0	146	32.80	149.8	-0.97		
	1	163	34.30	159.7	0.97	0.94	0.332
SPECRISK	0	146	22.90	147.2	-1.45		
	1	163	24.80	162.0	1.45	2.09	0.148
PROFITABILITY							
707ROCE	0	144	17.95	165.6	1.75		
	1	167	15.37	147.7	-1.75	3.07	0.080
711TPM	0	135	12.83	157.1	1.68		
	1	160	11.41	140.3	-1.68	2.82	0.093
716PTPM	0	142	9.275	165.6	1.92		
	1	167	7.590	146.0	-1.92	3.68	0.056
703ROSC	0	147	13.62	163.2	0.75		
	1	170	11.90	155.4	-0.75	0.57	0.451
GEARING							
731CGEAR	0	144	31.94	163.9	1.34		
	1	168	28.40	150.2	-1.34	1.79	0.182
732IGEAR	0	139	17.51	149.5	-0.54		
	1	165	18.19	155.0	0.54	0.29	0.588
733BR	0	147	0.4500	162.2	0.49		
	1	171	0.3900	157.1	-0.49	0.24	0.623
TAKEOVER ACTIVITY							
TAKEOVER	0	151	0.00E+00	163.5	0.08		
	1	174	0.00E+00	162.6	-0.08	0.06	0.803
SHAREHOLDER DETAILS							
BFA%	0	150	0.4000	170.1	1.36		
	1	174	0.2750	155.9	-1.36	1.86	0.173
TOTSSH	0	150	14.59	165.3	0.50		
	1	174	11.84	160.1	-0.50	0.26	0.610
NOOFSSH	0	150	2.000	169.4	1.24		
	1	174	1.000	156.5	-1.24	1.61	0.205

KEY:

RESTRICT coding of levels, 0 = no restriction, 1 = yes - a restriction operates at certain times

* = p value adjusted for ties

Table F-29 Kruskal-Wallis tests of association between the existence of a close season for communications (SEASON) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	0	298	303.35	168.1	3.28	10.77	0.001
	1	27	98.80	106.2	-3.28		
MARKETABILITY							
LISTINGS	0	298	0.00E+00	165.7	1.73	6.57	0.011
	1	27	0.00E+00	133.0	-1.73		
TRADFREQ	0	296	0.00E+00	157.4	-2.67	9.66	0.002
	1	26	1.00E-01	208.2	2.67		
RISK							
BETA	0	283	1.030	153.9	-0.74	0.55	0.457
	1	26	1.080	167.5	0.74		
VARIAB	0	283	33.10	151.4	-2.36	5.55	0.019
	1	26	37.35	194.5	2.36		
SPECRISK	0	283	23.60	151.2	-2.48	6.16	0.013
	1	26	27.90	196.6	2.48		
PROFITABILITY							
707ROCE	0	287	16.41	156.2	0.11	0.01	0.915
	1	24	15.40	154.1	-0.11		
711TPM	0	272	11.83	143.9	-2.84	8.06	0.005
	1	23	19.90	196.5	2.84		
716PTPM	0	285	8.060	150.4	-3.09	9.56	0.002
	1	24	14.565	209.2	3.09		
703ROSC	0	292	12.40	158.7	-0.20	0.04	0.839
	1	25	13.80	162.6	0.20		
GEARING							
731CGEAR	0	288	30.86	159.2	1.86	3.47	0.063
	1	24	19.15	123.5	-1.86		
732IGEAR	0	281	18.04	155.3	1.95	3.79	0.052
	1	23	11.39	118.2	-1.95		
733BR	0	293	0.4300	162.5	2.01	4.05	0.044
	1	25	0.2300	124.0	-2.01		
TAKEOVER ACTIVITY							
TAKEOVER	0	298	0.00E+00	163.5	0.35	1.13	0.289
	1	27	0.00E+00	157.0	-0.35		
SHAREHOLDER DETAILS							
BFA%	0	298	0.3000	160.6	-1.27	1.61	0.205
	1	26	0.8200	184.8	1.27		
TOTSSH	0	298	12.12	159.6	-1.90	3.72	0.054
	1	26	20.65	196.1	1.90		
NOOFSSH	0	298	1.000	159.9	-1.72	3.11	0.078
	1	26	2.000	192.8	1.72		

KEY:

SEASON coding of levels, 0 = there is a close season, 1 = no close season

* = p value adjusted for ties

Table F-30 Chi-square tests of association between the existence of a period of prohibition of communication (PROHIB) and the independent categorical variables

STD RESIDUALS: ROWS: PROHIB COLUMNS: OSEALIST

	NO	YES
0	0.00	-0.01
1	-0.00	0.01

CHI-SQUARE = 0.000 WITH D.F. =1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: PROHIB COLUMNS: TFCAT

	HIGH	LOW
0	0.17	-0.22
1	-0.18	0.24

CHI-SQUARE = 0.169 WITH D.F. =1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: PROHIB COLUMNS: ALPHA

	ALPHA	BETA
0	-0.18	0.43
1	0.20	-0.47

CHI-SQUARE = 0.477 WITH D.F. =1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: PROHIB COLUMNS: 4WAYINDC

	1	2	3	4
0	-1.77	0.34	1.28	0.33
1	1.96	-0.37	-1.42	-0.37

CHI-SQUARE = 11.142 WITH D.F. =3 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS: ROWS: PROHIB COLUMNS: SSH(Y/N)

	NO	YES
0	-0.16	0.11
1	0.18	-0.12

CHI-SQUARE = 0.085 WITH D.F. =1 (NOT SIGNIFICANT)

KEY:

PROHIB coding of levels, 0 = no prohibition, 1 = yes - a prohibition operates at certain times

Table F-31 Chi-square tests of association between the existence of a period of restriction of communication (RESTRICT) and the independent categorical variables

STD RESIDUALS: ROWS: RESTRICT COLUMNS: OSEALIST

	NO	YES
0	0.62	-1.30
1	-0.58	1.21

CHI-SQUARE = 3.886 WITH D.F. =1 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: RESTRICT COLUMNS: TFCAT

	HIGH	LOW
0	-1.06	1.41
1	0.98	-1.31

CHI-SQUARE = 5.776 WITH D.F. =1 (SIGNIFICANT AT THE .02 LEVEL)

STD RESIDUALS: ROWS: RESTRICT COLUMNS: ALPHA

	ALPHA	BETA
0	-0.11	0.27
1	0.10	-0.25

CHI-SQUARE = 0.154 WITH D.F. =1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: RESTRICT COLUMNS: 4WAYINDC

	1	2	3	4
0	1.41	-0.44	-1.45	0.57
1	-1.31	0.41	1.35	-0.53

CHI-SQUARE = 8.566 WITH D.F. =3 (SIGNIFICANT AT THE .05 LEVEL)

STD RESIDUALS: ROWS: RESTRICT COLUMNS: SSH(Y/N)

	NO	YES
0	0.15	-0.10
1	-0.14	0.09

CHI-SQUARE = 0.062 WITH D.F. =1 (NOT SIGNIFICANT)

KEY:
RESTRICT coding of levels, 0 = no restriction, 1 = yes - a restriction operates at certain times

Table F-32 Chi-square tests of association between the existence of a close season for communications (SEASON) and the company specific independent continuous variables

STD RESIDUALS: ROWS: SEASON COLUMNS: OSEALIST

	NO	YES
0	-0.32	0.67
1	1.06	-2.23

CHI-SQUARE = 6.667 WITH D.F. =1 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS: ROWS: SEASON COLUMNS: TFCAT

	HIGH	LOW
0	0.55	-0.74
1	-1.87	2.49

CHI-SQUARE = 10.579 WITH D.F. =1 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS: ROWS: SEASON COLUMNS: ALPHA

	ALPHA	BETA
0	0.08	-0.19
1	-0.26	0.63

CHI-SQUARE = 0.509 WITH D.F. =1 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: SEASON COLUMNS: 4WAYINDC

	1	2	3	4
0	0.10	0.23	-0.00	-0.49
1	-0.35	-0.78	0.01	1.63

CHI-SQUARE = 3.670 WITH D.F. =3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: SEASON COLUMNS: SSH(Y/N)

	NO	YES
0	0.28	-0.18
1	-0.95	0.61

CHI-SQUARE = 1.389 WITH D.F. =1 (NOT SIGNIFICANT)

KEY:
SEASON coding of levels, 0 = there is a close season, 1 = no close season

Table F-33 Descriptive statistics for data on length of close seasons

	N	N*	MEAN	MEDIAN	TRMEAN	STDEV
ANNUAL	269	56	59.063	60.000	59.230	12.509
INTERIM	266	59	54.391	60.000	54.963	12.499

	SEMEAN	MIN	MAX	Q1	Q3	TEST
ANNUAL	0.763	10.000	94.000	60.000	60.000	0.956
INTERIM	0.766	10.000	90.000	55.750	60.000	0.947

KEY:

ANNUAL = number of days for which communication is prohibited or restricted prior to annual results announcement

INTERIM = number of days for which communication is prohibited or restricted prior to interim results announcement

TEST = Minitab's correlation test for normality

Table F-34 Kruskal-Wallis tests of association between length of close season prior to annual results (ANNUAL) and independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	212	60.00	139.4	1.78	4.76	0.029
	1	57	60.00	118.7	-1.78		
TFCAT	0	182	60.00	135.1	0.03	0.00	0.969
	1	87	60.00	134.8	-0.03		
ALPHA	1	234	60.00	137.4	1.31	2.55	0.111
	2	35	60.00	119.0	-1.31		
4WAYINDC	1	78	60.00	135.3	0.05	7.72	0.053
	2	89	60.00	144.9	1.47		
	3	69	60.00	134.3	-0.08		
	4	33	60.00	108.9	-2.06		
SSH(Y/N)	0	80	60.00	139.4	0.60	0.54	0.463
	1	189	60.00	133.1	-0.60		

KEY:
* = p value adjusted for ties

Table F-35 Kruskal-Wallis tests of association between length of close season prior to interim results (INTERIM) and independent categorical variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
OSEALIST	0	209	60.00	142.9	3.82	21.05	0.000
	1	57	60.00	99.0	-3.82		
TFCAT	0	180	60.00	129.9	-1.11	1.78	0.183
	1	86	60.00	141.1	1.11		
ALPHA	1	232	60.00	132.7	-0.46	0.30	0.583
	2	34	60.00	139.1	0.46		
4WAYINDC	1	76	60.00	133.8	0.04	9.62	0.023
	2	89	60.00	139.8	0.94		
	3	69	60.00	140.0	0.82		
	4	32	58.00	101.4	-2.52		
SSH(Y/N)	0	80	60.00	136.3	0.40	0.23	0.635
	1	186	60.00	132.3	-0.40		

KEY:
* = p value adjusted for ties

Table F-36 Pearson correlation between length of close seasons and independent continuous variables

	ANNUAL	INTERIM
SIZE		
AV(MV)	-0.201**	-0.299**
LOGTAVMV	-0.102	-0.232**
MARKETABILITY		
LISTINGS	-0.137*	-0.224**
LOGLIST	-0.134*	-0.262**
TRADFREQ	-0.012	0.033
LOGTRADF	-0.021	0.039
RISK		
BETA	0.080	0.034
VARIAB	0.034	0.031
SQRTVAR	0.040	0.041
SPECRISK	0.022	0.037
LOGTSRSK	0.045	0.082
PROFITABILITY		
707ROCE	0.035	-0.029
711TPM	-0.071	-0.060
716PTPM	-0.032	-0.020
703ROSC	-0.017	0.020
GEARING		
731CGEAR	0.137*	-0.125
732IGEAR	0.047	-0.022
SQRTIG	0.010	-0.042
733BR	-0.024	0.001
SQRTBR	-0.040	-0.026
TAKEOVER ACTIVITY		
TAKEOVER	0.045	0.004
LOGTAKEO	0.032	-0.002
SHAREHOLDER DETAILS		
BFA%	0.016	-0.008
NEGRBFA%	0.026	0.091
TOTSSH	-0.139*	-0.066
SQRTOTSH	-0.119	-0.042
NOOFSSH	-0.092	-0.023

KEY:

** = Significant at at least the .01 level (two tail test)

* = Significant at the .05 level (two tail test)

Table F-37 Spearman rank correlation between length of close seasons and independent continuous variables

	ANNUAL	INTERIM
SIZE		
AV(MV)	-0.055	-0.159**
MARKETABILITY		
LISTING	-0.141*	-0.283**
TRADFREQ	-0.022	0.064
RISK		
BETA	0.067	0.008
VARIAB	0.028	0.008
SPECRISK	0.027	0.037
PROFITABILITY		
707ROCE	-0.017	0.090
711TPM	-0.068	0.027
716PTPM	-0.034	0.104
703ROSC	-0.035	0.066
GEARING		
731CG	0.010	-0.102
732IG	-0.010	-0.154*
733BR	-0.064	-0.170**
TAKEOVER ACTIVITY		
TAKEOVER	-0.016	-0.041
SHAREHOLDER DETAILS		
BFA%	0.052	0.084
TOTSSH	-0.121*	-0.058
NOOFSSH	-0.068	-0.016

KEY:

** = Significant at at least the .01 level (two tail test)

* = Significant at the .05 level (two tail test)

Table F-38 Kruskal-Wallis tests of association between opinion on general quality of analysts' reports (OPINION) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	12	156.25	139.4	-0.79		
	3	167	285.00	162.2	0.44		
	4	133	262.20	164.6	0.75		
	5	7	71.60	56.4	-3.00	9.85	0.020
MARKETABILITY							
LISTINGS	2	12	0.00E+00	195.6	1.36		
	3	167	0.00E+00	161.7	0.35		
	4	133	0.00E+00	156.2	-0.63		
	5	7	0.00E+00	130.5	-0.86	6.10	0.107
TRADFREQ	2	12	0.00E+00	151.2	-0.28		
	3	165	0.00E+00	159.5	0.21		
	4	132	0.00E+00	153.4	-0.85		
	5	7	3.00E-01	243.4	2.49	8.85	0.032
RISK							
BETA	2	12	1.0950	182.7	1.24		
	3	159	1.0400	154.9	0.60		
	4	125	0.9800	143.8	-1.37		
	5	7	1.1000	180.5	0.87	3.49	0.323
VARIAB	2	12	36.95	188.0	1.45		
	3	159	33.40	155.6	0.76		
	4	125	32.70	141.0	-1.83		
	5	7	38.10	204.1	1.59	6.74	0.082
SPECRISK	2	12	26.90	175.3	0.94		
	3	159	24.00	154.1	0.43		
	4	125	23.50	144.8	-1.19		
	5	7	27.90	193.2	1.26	3.32	0.345
PROFITABILITY							
707ROCE	2	12	14.86	150.3	-0.11		
	3	159	16.79	155.0	0.42		
	4	127	16.32	151.5	-0.25		
	5	7	11.60	138.4	-0.44	0.32	0.955
711TPM	2	11	13.50	157.4	0.50		
	3	152	12.01	146.8	0.39		
	4	119	11.80	140.5	-0.77		
	5	7	13.54	162.4	0.56	0.96	0.810
716PTPM	2	11	10.940	161.2	0.35		
	3	158	8.075	153.8	0.36		
	4	127	8.080	147.0	-0.84		
	5	7	10.680	188.6	1.12	1.82	0.611
703ROSC	2	12	8.065	128.5	-1.08		
	3	161	12.900	158.9	0.59		
	4	131	12.600	155.3	-0.11		
	5	7	13.800	148.8	-0.21	1.34	0.720

KEY:
OPINION coding of levels, 2 = poor, 3 = acceptable, 4 = good, 5 = very good

* = p value adjusted for ties

Table F-38 (continued) Kruskal-Wallis tests of association between opinion on general quality of analysts' reports (OPINION) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	12	32.90	162.2	0.35	0.44	0.932
	3	159	31.43	155.8	0.48		
	4	128	29.17	150.1	-0.57		
	5	7	28.81	147.9	-0.17		
732IGEAR	2	12	24.11	152.1	0.11	2.39	0.496
	3	156	19.54	156.3	1.43		
	4	123	17.15	141.8	-1.30		
	5	7	12.19	128.7	-0.65		
733BR	2	12	0.4450	145.7	-0.42	0.31	0.958
	3	161	0.4400	157.7	0.24		
	4	132	0.4200	156.7	0.03		
	5	7	0.4000	145.2	-0.33		
TAKEOVER ACTIVITY							
TAKEOVER	2	12	0.00E+00	154.0	-0.23	1.42	0.700
	3	167	0.00E+00	161.6	0.33		
	4	133	0.00E+00	158.8	-0.19		
	5	7	0.00E+00	154.0	-0.17		
SHAREHOLDER DETAILS							
BFA%	2	12	3.3800	179.2	0.76	1.33	0.722
	3	166	0.4250	159.6	0.03		
	4	133	0.2500	156.1	-0.55		
	5	7	4.5000	186.4	0.78		
TOTSSH	2	12	10.71	147.0	-0.48	2.18	0.537
	3	166	13.54	161.5	0.41		
	4	133	11.80	155.8	-0.61		
	5	7	19.10	203.6	1.28		
NOOFSSH	2	12	1.000	155.9	-0.14	10.02	0.019
	3	166	1.500	164.4	0.99		
	4	133	1.000	148.8	-1.76		
	5	7	3.000	253.0	2.72		

Table F-39 Kruskal-Wallis tests of association between opinion on quality of sell-side analysts' reports (SELLSIDE) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
SIZE							
AV(MV)	2	17	126.80	97.4	-1.30		
	3	113	305.10	125.4	1.60		
	4	98	236.05	118.1	0.01		
	5	7	62.70	48.6	-2.74	10.18	0.017
MARKETABILITY							
LISTINGS	2	17	0.00E+00	122.2	0.26		
	3	113	0.00E+00	122.9	1.06		
	4	98	0.00E+00	113.3	-0.90		
	5	7	0.00E+00	95.5	-0.89	4.01	0.262
TRADFREQ	2	17	0.00E+00	122.4	0.34		
	3	112	0.00E+00	113.1	-0.85		
	4	97	0.00E+00	115.0	-0.39		
	5	7	3.00E-01	194.4	3.09	13.21	0.004
RISK							
BETA	2	17	1.0200	114.0	0.10		
	3	108	1.0500	117.2	1.05		
	4	92	1.0300	108.1	-0.84		
	5	7	0.9200	93.4	-0.79	1.61	0.657
VARIAB	2	17	37.70	138.2	1.70		
	3	108	33.55	111.7	-0.19		
	4	92	34.25	108.6	-0.75		
	5	7	35.60	114.4	0.08	3.03	0.388
SPECRISK	2	17	31.20	137.1	1.63		
	3	108	24.35	109.8	-0.60		
	4	92	24.45	110.3	-0.42		
	5	7	27.90	122.9	0.43	2.93	0.403
PROFITABILITY							
707ROCE	2	17	11.42	90.1	-1.56		
	3	109	16.87	116.7	0.60		
	4	94	15.83	113.1	-0.17		
	5	7	29.74	141.4	1.12	3.68	0.298
711TPM	2	15	14.22	110.8	0.18		
	3	104	11.78	107.0	-0.23		
	4	89	11.86	108.3	0.05		
	5	7	13.54	113.4	0.23	0.11	0.990
716PTPM	2	15	5.360	102.6	-0.55		
	3	108	8.070	111.6	0.02		
	4	92	8.295	110.8	-0.14		
	5	7	10.680	138.9	1.15	1.57	0.667
703ROSC	2	17	7.830	93.8	-1.37		
	3	110	12.350	115.9	0.19		
	4	95	12.400	115.5	0.10		
	5	7	20.300	146.1	1.26	3.31	0.346

KEY:

SELLSIDE coding of levels, 2 = very poor and poor, 3 = acceptable, 4 = good, 5 = very good

* = p value adjusted for ties

Table F-39 (continued) Kruskal-Wallis tests of association between opinion on quality of sell-side analysts' reports (SELLSIDE) and the company specific independent continuous variables

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
GEARING							
731CGEAR	2	17	36.86	140.0	1.65	3.11	0.376
	3	109	30.70	113.8	-0.16		
	4	95	30.27	112.0	-0.49		
	5	7	23.30	98.3	-0.66		
732IGEAR	2	16	27.625	120.3	0.60	4.22	0.240
	3	107	18.750	113.8	0.64		
	4	91	18.040	109.6	-0.28		
	5	7	6.090	65.0	-1.93		
733BR	2	17	0.6100	146.6	2.00	4.76	0.191
	3	110	0.4000	110.7	-1.05		
	4	96	0.4250	116.7	0.23		
	5	7	0.1300	98.9	-0.67		
TAKEOVER ACTIVITY							
TAKEOVER	2	17	0.00E+00	120.4	0.15	0.72	0.869
	3	113	0.00E+00	118.7	0.15		
	4	98	0.00E+00	117.1	-0.17		
	5	7	0.00E+00	113.5	-0.18		
SHAREHOLDER DETAILS							
BFA%	2	17	3.8000	126.0	0.54	2.04	0.564
	3	112	0.7000	114.5	-0.65		
	4	98	0.4000	117.2	-0.06		
	5	7	4.5000	149.4	1.26		
TOTSSH	2	17	15.12	117.1	-0.02	1.62	0.655
	3	112	10.73	113.0	-0.98		
	4	98	14.90	121.1	0.69		
	5	7	15.00	140.5	0.91		
NOOFSSH	2	17	2.000	124.4	0.44	3.64	0.303
	3	112	1.000	115.1	-0.52		
	4	98	1.000	115.8	-0.32		
	5	7	3.000	162.5	1.79		

Table F-40 Chi-square tests of association between opinions on the general quality of analysts' reports (OPINION) and the independent categorical variables

STD RESIDUALS: ROWS: OPINION COLUMNS: OSEALIST

	NO	YES
2	-0.89	1.87
3	-0.18	0.38
4	0.35	-0.73
5	0.54	-1.14

CHI-SQUARE = 6.686 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: OPINION COLUMNS: TFCAT

	HIGH	LOW
2	0.13	-0.18
3	-0.29	0.38
4	0.77	-1.02
5	-2.11	2.79

CHI-SQUARE = 14.133 WITH D.F. = 3 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS: ROWS: OPINION COLUMNS: ALPHA

	ALPHA	BETA
2	-0.07	0.17
3	0.13	-0.31
4	-0.03	0.08
5	-0.40	0.95

CHI-SQUARE = 1.211 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: OPINION COLUMNS: 4WAYINDC

	1	2	3	4
2	-0.82	0.71	-0.07	0.24
3	0.40	-0.53	0.54	-0.53
4	-0.51	0.72	-0.61	0.52
5	1.35	-1.46	0.13	0.01

CHI-SQUARE = 7.617 WITH D.F. = 9 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: OPINION COLUMNS: SSH(Y/N)

	NO	YES
2	0.28	-0.18
3	-0.73	0.46
4	1.05	-0.67
5	-1.42	0.91

CHI-SQUARE = 5.258 WITH D.F. = 3 (NOT SIGNIFICANT)

KEY:

OPINION coding of levels, 2 = poor, 3 = acceptable, 4 = good, 5 = very good

Table F-41 Chi-square tests of association between opinions on the quality of sell-side analysts reports (SELLSIDE) and the independent categorical variables

STD RESIDUALS: ROWS: SELLSIDE COLUMNS: OSEALIST

	NO	YES
2	-0.20	0.41
3	-0.46	0.94
4	0.42	-0.87
5	0.56	-1.16

CHI-SQUARE = 3.891 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: SELLSIDE COLUMNS: TFCAT

	HIGH	LOW
2	-0.24	0.32
3	0.22	-0.29
4	0.43	-0.57
5	-2.11	2.78

CHI-SQUARE = 12.993 WITH 3 (SIGNIFICANT AT THE .01 LEVEL)

STD RESIDUALS: ROWS: SELLSIDE COLUMNS: ALPHA

	ALPHA	BETA
2	0.10	-0.26
3	0.28	-0.70
4	-0.13	0.32
5	-0.82	2.03

CHI-SQUARE = 5.547 WITH D.F. = 3 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: SELLSIDE COLUMNS: 4WAYINDC

	1	2	3	4
2	-0.09	-0.72	0.47	0.68
3	0.06	0.00	0.01	-0.13
4	-0.19	0.36	-0.28	0.09
5	0.58	-0.23	0.26	-0.91

CHI-SQUARE = 2.779 WITH D.F. = 9 (NOT SIGNIFICANT)

STD RESIDUALS: ROWS: SELLSIDE COLUMNS: SSH(Y/N)

	NO	YES
2	-0.21	0.12
3	0.15	-0.09
4	0.29	-0.17
5	-1.35	0.80

CHI-SQUARE = 2.667 WITH D.F. = 3 (NOT SIGNIFICANT)

KEY:

SELLSIDE coding of levels, 2 = very poor and poor, 3 = acceptable, 4 = good, 5 = very good

Table F-42 Kruskal-Wallis tests of association between opinions on sell-side analysts and independent continuous variables

Opinion 2 - Company telephone conversations with sell-side analysts are a valuable means of communication

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1	86	402.65	179.5	2.16	16.39	0.001
	2	200	272.45	159.8	-0.31		
	3	25	207.50	148.7	-0.69		
	4&5	10	74.00	57.3	-3.59		
TRADFREQ	1	86	0.00E+00	148.9	-1.31	9.24	0.027
	2	198	0.00E+00	159.9	-0.03		
	3	25	0.00E+00	172.7	0.72		
	4&5	10	3.50E-01	225.8	2.29		
732IGEAR	1	82	16.620	144.2	-0.77	9.48	0.024
	2	184	19.360	158.8	2.09		
	3	24	13.420	138.5	-0.71		
	4&5	10	6.845	78.4	-2.67		

Opinion 4 - My company would prefer not to talk to sell-side analysts on the telephone

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1&2	19	74.60	105.9	-2.64	8.90	0.031
	3	12	180.70	151.0	-0.35		
	4	188	272.45	158.8	-0.29		
	5	100	352.10	173.7	1.79		
BFA%	1&2	19	5.4000	210.4	2.49	8.53	0.037
	3	12	1.4200	195.8	1.39		
	4	187	0.3000	154.2	-1.22		
	5	100	0.2850	155.3	-0.55		

Opinion 5 - My company should not provide sell-side analysts with guidance as to the accuracy of their profits forecasts

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
BETA	1	24	0.9600	130.3	-1.19	11.15	0.025
	2	57	1.0700	177.6	2.62		
	3	40	1.0400	157.6	0.55		
	4	148	0.9750	138.1	-2.44		
	5	31	1.0900	166.3	1.07		

KEY:

Coding of levels 1 = strongly agree, 2 = agree, 3 = uncertain, 4 = disagree, 5 = strongly disagree

* = p value adjusted for ties

Table F-42 (continued) Kruskal-Wallis tests of association between opinions and independent continuous variables

Opinion 6 - Sell-side analysts pressurise my company for information

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1	8	460.8	171.6	0.39	17.28	0.002
	2	113	436.8	185.1	3.77		
	3	46	151.9	140.8	-1.46		
	4	132	155.4	140.1	-3.10		
	5	18	468.6	175.0	0.76		
TRADFREQ	1	8	5.00E-02	177.8	0.62	18.82	0.001
	2	113	0.00E+00	133.9	-3.51		
	3	46	0.00E+00	164.4	0.51		
	4	130	0.00E+00	176.4	3.01		
	5	18	0.00E+00	151.0	-0.34		
BFA%	1	8	0.01000	90.8	-2.12	9.74	0.046
	2	113	0.30000	161.1	0.37		
	3	46	0.84000	182.7	1.94		
	4	131	0.46000	156.0	-0.41		
	5	18	0.18500	128.7	-1.42		

Opinion 7 - Sell-side analysts are too concerned with short term profit opportunities

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
731CGEAR	1	33	38.10	193.5	2.71	8.36	0.040
	2	152	29.99	153.2	-0.15		
	3	55	27.73	149.5	-0.42		
	5&4	67	29.60	140.0	-1.46		
733BR	1	33	0.6300	194.4	2.51	7.99	0.047
	2	155	0.4400	158.8	0.35		
	3	56	0.3500	147.3	-0.89		
	5&4	69	0.4100	143.0	-1.45		

Table F-43 Kruskal-Wallis tests of association between opinions on buy-side analysts and fund managers and independent continuous variables

Opinion 1 - Company meetings with buy-side analysts and fund managers are a valuable means of communication

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1	168	379.2	171.7	2.85	8.31	0.016
	2	136	214.1	143.3	-2.49		
	5&3	11	120.9	130.5	-1.02		
LISTINGS	1	168	0.00E+00	166.5	1.78	6.82	0.033
	2	136	0.00E+00	148.6	-1.59		
	5&3	11	0.00E+00	143.6	-0.53		
TRADFREQ	1	166	0.00E+00	144.7	-2.47	10.21	0.006
	2	136	0.00E+00	167.6	1.91		
	5&3	10	1.50E-01	202.1	1.63		
716PTPM	1	162	8.295	149.7	-0.27	7.77	0.021
	2	130	7.985	147.1	-0.68		
	5&3	9	20.290	230.3	2.78		
731CGEAR	1	162	32.80	163.9	2.53	7.30	0.026
	2	132	28.19	140.1	-2.07		
	5&3	9	14.02	111.8	-1.40		
733BR	1	165	0.4400	162.7	1.61	6.20	0.046
	2	135	0.4000	149.9	-0.89		
	5&3	9	0.1300	91.6	-2.16		

Opinion 3 - My company would prefer not to hold meetings with buy-side analysts and fund managers

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1&2	6	152.6	103.2	-1.50	15.52	0.001
	3	5	2265.8	187.2	0.71		
	4	151	194.1	140.2	-3.41		
	5	154	439.5	177.7	3.64		
	1&2	6	0.00E+00	128.5	-0.81		
LISTINGS	3	5	0.00E+00	198.7	0.99	11.03	0.012
	4	151	0.00E+00	148.5	-1.86		
	5	154	0.00E+00	168.2	1.84		
	1&2	6	3.00E-01	214.0	1.56		
	3	5	0.00E+00	161.4	0.11		
TRADFREQ	4	150	0.00E+00	169.3	2.30	12.34	0.007
	5	152	0.00E+00	142.5	-2.76		

KEY:

Coding of levels 1 = strongly agree, 2 = agree, 3 = uncertain, 4 = disagree, 5 = strongly disagree

* = p value adjusted for ties

Table F-43 (continued) Kruskal-Wallis tests of association between opinions on buy-side analysts and fund managers and independent continuous variables

Opinion 4 - My company would prefer not to talk to buy-side analysts and fund managers on the telephone

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1&2	23	97.80	108.2	-2.69	18.46	0.000
	3	20	273.90	165.9	0.45		
	4	153	197.20	144.4	-2.41		
	5	117	452.60	181.6	3.71		

Opinion 5 - My company should not provide buy-side analysts and fund managers with guidance as to future profits

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
711TPM	1	27	9.790	107.6	-2.32	14.73	0.006
	2	68	12.625	144.8	0.26		
	3	40	17.965	180.9	3.19		
	4	122	11.515	135.2	-1.30		
	5	27	12.640	147.9	0.36		

Opinion 6 - Buy-side analysts and fund managers pressurise my company for information

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
707ROCE	1&2	45	20.78	181.3	2.53	8.57	0.036
	3	38	13.61	128.8	-1.68		
	4	186	16.17	146.9	-1.03		
	5	32	17.37	158.4	0.51		

Opinion 8 - Buy-side analysts and fund managers are not sufficiently interested in the long term prospects of my company

VARIABLE	LEVEL	NOBS	MEDIAN	AVE. RANK	Z VALUE	H	p*
AV(MV)	1	6	126.7	99.8	-1.59	14.00	0.008
	2	37	207.4	142.3	-1.15		
	3	65	160.2	135.9	-2.24		
	4	179	353.5	165.7	1.61		
	5	29	518.3	197.4	2.41		
LISTINGS	1	6	0.00E+00	128.5	-0.81	14.23	0.007
	2	37	0.00E+00	162.4	0.28		
	3	65	0.00E+00	147.1	-1.13		
	4	179	0.00E+00	156.8	-0.38		
	5	29	0.00E+00	195.9	2.31		
TRADFREQ	1	6	2.50E-01	234.3	2.11	12.88	0.012
	2	36	0.00E+00	171.7	1.04		
	3	64	0.00E+00	171.3	1.42		
	4	178	0.00E+00	149.3	-1.72		
	5	29	0.00E+00	138.2	-1.17		

Table F-44 Chi-square test of association between opinion on sell-side analysts and industrial classification

Opinion 4 - My company would prefer not to talk to sell-side analysts on the telephone

STD RESIDUALS: ROWS: OPINION COLUMNS: 4WAYINDC

	1	2	3	4
1&2	1.47	-0.37	-0.87	-0.38
3	-0.80	1.70	-1.77	1.05
4	1.11	-1.22	0.44	-0.38
5	-1.88	1.25	0.39	0.32

CHI-SQUARE = 19.363 WITH D.F. = 9 (SIGNIFICANT AT THE .05 LEVEL)

KEY:

OPINION coding of levels, 1 = strongly agree, 2 = agree, 3 = uncertain, 4 = disagree, 5 = strongly disagree

Glossary**Abbreviations used for independent variables**

4WAYINDC	Four way industrial classification (1 = capital, 2 = consumer, 3 = other, 4 = financial)
703ROSC	Return on shareholders' capital, Datastream company accounts item 703
707ROCE	Return on capital employed, Datastream company accounts item 707
711TPM	Trading profit margin, Datastream company accounts item 711
716PTPM	Pre-tax profit margin, Datastream company accounts item 716
731CGEAR	Capital gearing, Datastream company accounts item 731
732IGEAR	Income gearing, Datastream company accounts item 732
733BR	Borrowing ratio, Datastream company accounts item 733
ALPHA	Whether a stock was rated alpha or beta on the London Stock Exchange at 7th September 1991
AV(MV)	Average market value of quoted equity for the year to 31st July 1991
BETA	Beta, the sensitivity of the share price to general market movements, as calculated by London Business School Risk Measurement service July 1991
BFA%	Percentage of equity held by board, family and associates as listed in Crawford's Directory of City Connections 1992
LISTINGS	Number of overseas stock exchange listings at 1st August 1991
LOGLIST	Log base ten of (LISTINGS + 1)
LOGTAKEO	Log base ten of (TAKEOVER + 1)
LOGTAVMV	Log base ten of AV(MV)
LOGTRADF	Log base ten of (TRADFREQ + 1)
LOGTSRSK	Log base ten of SPECRISK
NEGRBFA%	Negative reciprocal of (BFA% + 1)

NOOFSSH	Number of substantial shareholdings listed in Crawford's Directory of City Connections 1992
OSEALIST	Whether or not there were any overseas listings at 1 August 1991
SPECRISK	Specific risk, the risk of non-market related fluctuations in the share price, as calculated by London Business School Risk Measurement service July 1991
SQRTBR	Square root of $(733BR + 7)$
SQRTIG	Square root of $(732IGEAR + 228)$
SQRTOTSH	Square root of $(TOTSSH + 1)$
SQRTVAR	Square root of VARIAB
SSH(Y/N)	Whether or not there were any substantial shareholders (3% or more)
TAKEOVER	Number of takeovers in year to 31st July 1991
TFCAT	Whether trading was FREQUENT (0 days between trades) or LESS FREQUENT (>0 days between trades)
TOTSSH	Total percentage of equity held by substantial shareholders (holding 3% or more) as listed in Crawford's Directory of City Connections 1992
TRADFREQ	Trading frequency (time between trades in days) as calculated by London Business School Risk Measurement service July 1991
VARIAB	Variability (standard deviation) of the returns on the share as calculated by London Business School Risk Measurement service July 1991

Abbreviations used for dependent variables

%DIRINIR	The percentage of the directorate involved in managing or executing the IR programme
ACTIVITY	Index of IR activity (see 10.3)
ANALYST(A)	Number of sell-side analysts attending meetings in past 12m
ANALYST(B)	Number of buy-side analysts and fund managers attending meetings in past 12m
ANNUAL	Number of days close season prior to annual results announcement
BROKERS	Number of stockbrokers on company mailing list
BUDGET	Annual budget allocation for IR
COMMENT	Number of sell-side analysts' reports passed to company for comment in the past 12m
COSTS	Cost of external IR consultant in past 12m
DIRDAYS	Director days devoted to IR
FEEDBACK	Rank importance of providing feedback on analysts' reports
FIRMS	Number of stockbroking firms represented at meetings in past 12m
GENERAL	Rank importance of holding general meetings
GENERALS	Number of general meetings in past 12m
INDEX	The index of director involvement in IR (see 9.3.1)
INSTINV	Number of institutional investors on company mailing list
INTERIM	Number of days close season prior to interim results announcement
INVESTOR	Number of institutional investor organisations represented at meetings in the past 12m
IRCONS	Whether or not there was an external IR consultant
IRDEPT	Whether or not there was an IR department
IROFFICER	Whether there is a dedicated IR officer, an IR officer with other duties or no IR officer
IRSTAFF	Whether staff working for IR officer are dedicated to IR, their work involves other duties, or there are no staff

LIST(A)	Number of sell-side analysts on company's circulation list
LIST(B)	Number of buy-side analysts and fund managers on company's circulation list
MAILING	Rank importance of mailing information
MAILING(A)	Whether or not the company mailed information to sell-side analysts
MAILING(B)	Whether or not the company mailed information to buy-side analysts
OPINION	Opinion of general quality of analysts' reports
OTHER	Number of other organisations employing analysts on company mailing list
PROHIB	Whether or not a company operated a prohibition on communication in its close season
REPORTS	Number of sell-side analysts' reports produced in the past 12m
RESTRICT	Whether or not a company operated a restriction on communication in its close season
SEASON	Whether a company had a close season or not
SELLSIDE	Opinion on quality of analysis carried out by sell-side analysts
SPECIAL	Rank importance of holding special meetings
SPECIALS	Number of special meetings in past 12m
SURVEYS	SURVEYS(A) + SURVEYS(B)
SURVEYS(A)	Number of surveys of city opinion in past 12m
SURVEYS(B)	Number of surveys more than 12m ago, less than 5 years ago
SURVEYS(Y/N)	Whether or not any surveys had been commissioned
TELEPHONE	Rank importance of telephone conversations

Abbreviations used for statistical terms**Chi-square test tables**

STD RESIDUALS Standardized residuals

Descriptive statistics tables

NOBS Number of observations
Q1 First quartile
Q2 Third quartile
SEMEAN Standard error of the mean
STDEV Standard deviation
TEST Minitab's correlation test for normality
TRMEAN 5% trimmed mean

Kruskal-Wallis test tables

H The Kruskal-Wallis test statistic
Z VALUE Indicates how the mean rank for the group differs
 from the mean rank for all the observations

Regression tables

Coef Coefficient
DF Degrees of freedom
F F-ratio
MS MS error
R-SQ Coefficient of determination
R-SQ(ADJ) R-SQ adjusted for degrees of freedom
S The estimated standard deviation about the
 regression line
SS Sum of squares

