AN EMPIRICAL INVESTIGATION OF THE FINANCIAL DISCLOSURE PRACTICES OF CYPRIOT AND GREEK COMPANIES

**A thesis submitted in partial fulfilment of the
requirements for the degree of
Doctor of Philosophy**

Christos Vlachos ACT, MBA, FCCA

**Middlesex University Business School
Middlesex University
London
England**

September, 2001

Respectfully dedicated to my son and my wife, Andreas and Alexia Vlachos, and my parents, Andreas and Eleni Vlachos.
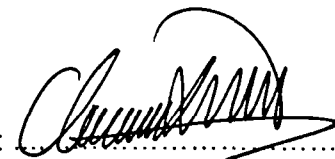
DECLARATION

This thesis is submitted to Middlesex University in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Accounting.

This Doctoral thesis is available for use in libraries on condition that any student, researcher, practitioner or anyone else who consults it, is understood to recognize that its copyright rests with me. Additionally, no quotation taken from the thesis nor any information from it may be published without my prior written consent.

I declare that this work, or part of it, has not been accepted in substance for any degree, and is not concurrently being submitted in candidature for any degree.

I also declare that this Doctoral thesis is my own work and where the works of other writers have been used, these have been duly acknowledged and referenced in the text, footnotes and bibliography.

Signed: ....

Christos Vlachos
September, 2001.

ABSTRACT

The main objectives of this study are to: (1) investigate empirically the extensiveness of the Cypriot and Greek corporate mandatory disclosure practices; (2) examine the relationship between each of a number of specific corporate characteristics and the Cypriot and Greek corporate mandatory disclosure practices; (3) assess whether the variations in the extensiveness of Cypriot and Greek corporate mandatory disclosure practices can be explained by the selected corporate characteristics together; and (4), compare the results found for Cyprus with those found for Greece. The corporate characteristics examined, which are used as proxies of agency, political and other costs, are: company size, age, profitability, liquidity, industry type, listing status and auditor type.

The study begins with the provision of background information about the Cypriot and Greek accounting environments which reveals that companies in the two countries operate within substantially different accounting environments. The study continues with a synthesis of the conceptual framework for corporate financial disclosure that identifies the variables that are likely to affect the research problem. A review of the corporate disclosure literature identifies a gap in the literature, which the study aspires to fill, and establishes the background for choosing the appropriate methodology to be used in the study. To investigate the extensiveness of the Cypriot and Greek corporate mandatory disclosure practices, the 1996 corporate annual financial statements (CAFSs) of 50 Cypriot and 74 Greek companies were collected. Extensiveness was defined as the quantity and quality of mandatory information disclosed in CAFSs and was measured by applying a country–specific disclosure measuring instrument against the CAFSs of the sample companies from each country. The relationship between the extent of corporate disclosure and the selected corporate characteristics was examined by using both bivariate and multivariate statistical analyses for each of the two countries.

The results of the empirical analyses have led to four main conclusions. First, the Cypriot and Greek corporate mandatory disclosure practices, on the whole, appear to be extensive. Second, Cypriot public companies which are more profitable, are classified as conglomerates or whose shares are listed on the Cyprus Stock Exchange (CSE), tend to disclose significantly more extensive mandatory information in their 1996 CAFSs. Third, Greek listed companies which are smaller, are classified as conglomerates or manufacturing, or whose shares are listed on the main market of the Athens Stock Exchange (ASE), tend to disclose significantly more extensive mandatory information in their 1996 CAFSs. Finally, on the basis of the comparative analyses undertaken, it can be concluded that although the influence of listing status and industry type on Cypriot and Greek mandatory disclosure practices is similar, the influence of company size is different. In contrast to Cyprus and most evidence reported in previous studies, company size has a negative influence on the extent of Greek corporate mandatory disclosure practices. This difference can be explained by theoretical, environmental, empirical and other considerations. For example, it can be attributed to the distinctive nature of the highly politicised Greek accounting environment and can be explained by political cost theory. Another possible explanation may be that Greek large companies disclose fewer details in their CAFSs but: (1) use other communication media to disclose mandatory information; or (2), use mandatory and voluntary disclosures as substitutes and replace the disclosure of less extensive mandatory information with more extensive voluntary disclosure.

There are several possible policy implications that arise out of the above conclusions. The first implication is that improvements in Cypriot and Greek corporate mandatory disclosure can be made. Another policy implication is that corporate stakeholders who rely on CAFSs to get useful information should be wary of Cypriot companies which are less profitable, are classified as non–conglomerates or are not listed on the CSE; and Greek companies which are larger, are classified as others or are listed on the parallel market of the ASE. This is because these companies have been found to disclose less

extensive mandatory information. The third policy implication arising out of the conclusions of the study is that it is possible that different predictions about the disclosure of corporate information may be derived from the political cost theory, depending on the environment within which the theory is examined. This is because although it is usually claimed that politically sensitive companies may disclose more extensively in order to reduce their political costs, the opposite may be true in the case of countries with specific environmental characteristics (similar to those existing in Greece in 1996): politically sensitive companies may disclose less extensively.

ACKNOWLEDGEMENTS

Perhaps the most pleasant stage in a research project is when the researcher comes to acknowledge the help and support of those who willingly gave their time and resources to help. I am deeply indebted to a number of persons for their assistance, advice, guidance and inspiration in the production of this thesis.

I am extremely grateful to my Director of Studies, Mr. David Jarrett, and my Second Supervisor, Professor David Alexander, for their guidance, patience, direction, prompt feedback and constructive criticisms. Their welcoming attitude and long experience in academia, have helped me the most in completing this study. I would also like to acknowledge, with sincere thanks, the contribution and counsel of Professor R S Olusegun Wallace, who was my Director of Studies for the first two years of my research (until he left Middlesex University to join King Fahd University in Saudi Arabia), and Professor Terry Cooke who was my Second Supervisor during the same period.

Many thanks are also due to the Intercollege staff for their administrative support. Special thanks go to Ms. Stavroulla Vassiliou, Ms. Bobby Nicolaou and Ms. Andri Kalli. However, I would like to offer my special appreciation to my long–time assistant, Ms. Elena Zavalli, for her timely assistance and patience throughout the five years of my research. Elena, indeed, contributed a lot to this study and to her, I say thank you for her kindness and dedication.

I am thankful to Mr. Nicos Peristianis, Executive Dean of Intercollege, and IMCS Intercollege, the former for suggesting and the latter for accepting to cover my course fees. Thanks also go to Mr. Michael Zampelas and PricewaterhouseCoopers Cyprus (ex Coopers and Lybrand), for their generous financial assistance.

I cannot thank enough Dr. Stephen Owusu-Ansah, formerly a colleague at Middlesex University and currently Assistant Professor at King Fahd University in Saudi Arabia. Stephen gave me his guidance, constructive criticism and advice, especially during my first difficult year at Middlesex.

I would also like to acknowledge the help, contribution, comments and suggestions of Dr. Stergios Leventis (Strathclyde University), Professor Abby Ghobadian (Middlesex University), Mr. Panicos Charalambous (Intercollege), Dr. Costas Caramanis (Manchester University) and Dr. Apostolos Ballas (Athens Laboratory of Business Administration). I am also grateful to all professionals and academics interviewed and the Cypriot and Greek accounting firms which authenticated the disclosure measuring instruments used in the study (their names appear in the appropriate footnotes of the study).

Finally, I owe a debt of gratitude to my son, Andreas Vlachos, and my wife, Alexia Vlachos, for their moral support and patience during the course of this study. Andreas and his mum have suffered for this thesis and, to them, I say thank you for their sacrifices, patience and understanding throughout the five years of my investigation. I owe my success to them.

In acknowledging the above contributions I do not, in the least, yield any personal responsibility for the views expressed in this study or for any errors or omissions remaining; these are totally mine.

Christos Vlachos

September, 2001

CONTENTS

PART I

INTRODUCTION

PART II

LITERATURE REVIEW

PART III

EMPIRICAL INVESTIGATION

PART IV

CONCLUSION

PART V

APPENDICES AND BIBLIOGRAPHY

LIST OF ABBREVIATIONS

AAT	Association of Accounting Technicians (UK)
AE	Greek Public Company (Societe Anonyme)
ACCA	Association of Chartered Certified Accountants (UK)
AGM	Annual General Meeting
AICPA	American Institute of Certified Public Accountants (Cyprus)
ANOVA	Analysis of Variance
APB	Auditing Practices Board (US)
ASB	Accounting Standards Board (UK)
ASE	Athens Stock Exchange
ASEAN	Association of South East Asian Nations
BC	Before Christ
BLUE	Best Linear Unbiased Efficient Estimates
CAFSs	Corporate Annual Financial Statements
CAR	Corporate Annual Report
CC	Commercial Code (Japan)
CCCI	Cyprus Chamber of Commerce and Industry
CI	Condition Index
CISCO	Cyprus Investments and Securities Corporation
CLRM	Classical Linear Regression Model
CPA	Certified Public Accountants (US)
CSE	Cyprus Stock Exchange
CYP	Cyprus Pound
EBIT	Earnings Before Interest and Tax
EEC	European Economic Community
EMH	Efficient Market Hypothesis
EMS	European Monetary System
EMU	European Monetary Union

EPE	Greek Limited Liability Company
EOKA	National Organisation of Cypriot Fighters
EU	European Union
FEE	Federation Des Experts Comptables Europeans
FRRP	Financial Reporting Review Panel
FRS	Financial Reporting Standards
GAAP	Generally Accepted Accounting Principles
GATT	General Agreement on Tariffs and Trade
GGAP	Greek General Accounting Plan
GDP	Gross Domestic Predict
GRD	Greek Drachma
IASs	International Accounting Standards
IASC	International Accounting Standards Committee
ICAEW	Institute of Chartered Accountants in England and Wales
ICFAR	International Comparative Financial Accounting Research
ICPAC	Institute of Certified Public Accountants (Cyprus)
IFAC	International Federation of Accountants
IQCAAC	Institute of Qualified Certified Accountants – Auditors of Cyprus
ISA	International Standards on Auditing
KLSE	Kuala Lumpur Stock Exchange
LCCI	London Chamber of Commerce and Industry
MNCs	Multinational Corporations
MVUE	Minimum Variance Unbiased Estimator
NYSE	New York Stock Exchange
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Squares
OTC	Over–the–Counter Market
OTE	Greek State Telephone Company

PICPA	**Pancyprian Institute of Certified Public Accountants**
P/E	**Price Earnings Ratio**
ROCE	**Return on Capital Employed**
SEC	**Securities and Exchange Commission**
SEL	**Securities and Exchange Law (Japan)**
SELE	**Association of Certified Accountants and Auditors (Greece)**
SOE	**Society of Sworn Auditors (Greece)**
SOL	**Society of Sworn Accountants (Greece)**
SSAPs	**Statement of Standard Accounting Practice**
VIF	**Variance Inflation Factor**

LIST OF TABLES

LIST OF FIGURES

PART I

INTRODUCTION

CHAPTER 1

INTRODUCTION TO THE STUDY

"Every science and every inquiry, and similarly every activity and pursuit, is thought to aim at some good".

(Aristotle, 384 – 322 B.C.; cited in Bartlett and Kaplan, 1992)

1.1   BACKGROUND TO THE STUDY

1.1.1   The Nature and Role of Accounting

What is accounting?   Is it a system of rules aiming to facilitate the recording of commercial transactions and the production of stewardship reports, or a fully developed social service with practical rules and supporting theories?   Indeed, so many definitions of accounting are encountered, that one may be confused about its nature and role.

There are those who argue that accounting is an art, stressing that accounting skills can be taught and suggesting that a legalistic approach to accounting could be adopted by codifying its practices (Beams, 1965).   On the other hand, there are those who propose that accounting is a science, emphasising that accounting skills can only be gained by giving more conceptual insight into what accounting is attempting to do and provoking more critical thought about its dynamics (Sterling, 1975).   Mautz (1963) proposes that since accounting deals with social groups (enterprises), is concerned with events which have social consequences (economic transactions), and produces knowledge that is useful to human beings engaged in activities having social implications (economic information), accounting is primarily mental in nature and should be seen as a social science.   In this respect, Belkaoui (1994) notes that the

now widely—held view is that accounting is a social service, emphasising that research as well as practice have taken the discipline to new frontiers, making it a fully developed social science.

The discussion above suggests that accounting is a service activity which aspires to be at the core of the working of the economy. Its role is to produce useful economic information so as to aid users' decision making, whether in the deployment of resources in profit and non—profit organisations or in the economy in general. For the purposes of both practice and study, accounting is usually divided into financial accounting, whose objective is to provide information for use by parties both internal and external to the enterprise, and management accounting, whose primary concern is the provision of information for management purposes. While information provided by the former is essentially a review of past performance and current financial position, the latter incorporates feedback on current performance as well as forecasts concerning future activities and events. This thesis concentrates on financial accounting and its role as a social service, aiming to provide information which is useful in making economic decisions.

1.1.2   Accounting Disclosure

The preceding section indicates that accounting is essentially a process of communicating economic information. Bedford (1973) conceptualises this process as consisting of four procedural steps: the perception of an organisation's significant activities, the symbolisation of the perceived activities in order to grasp an understanding of their interrelationships, the analysis of the activities in order to summarise, organise and lay bare their interrelationship and, finally, the communication of the analysis to different interested parties. While the perception and symbolisation steps constitute the process of *accounting measurement*, the analysis

3

and communication steps constitute the process of *accounting disclosure.* These two processes together give financial reporting its substance (Choi and Mueller, 1992).

Companies, which are the form of business organisation of interest in the thesis, disclose economic information to interested users via a variety of formal and informal forms (such as interim statements, prospectuses, news releases, ad hoc statements etc.). However, it is widely accepted that the most appropriate way in which information can be presented to meet the objective of corporate financial reporting is the set of corporate annual financial statements (CAFSs) [Accounting Standards Board (ASB), 1996]. These statements normally include a balance sheet, an income statement, a statement of changes in financial position and other explanatory notes and statements [International Accounting Standards Committee (IASC), 1996]. They may also include supplementary schedules and information, but do not include the directors' and chairman's reports or other management information that are usually included (in addition to the CAFSs) in a company's annual report (CAR).

Depending on the degree of statutory and other institutional regulation in each country, the quality of information disclosed in CAFSs is usually left to the judgement of those who are legally responsible for their preparation, the company directors. It is, therefore, of vital importance to the efficient and effective functioning of every company, that information disclosed in CAFSs is evaluated in order to determine whether it adheres to certain standards and possesses those qualitative characteristics that render it useful to decision makers. Because, if information disclosed in the main communication medium is not believed to be useful, then the whole edifice of corporate financial accounting (if not of the economic system itself) becomes rickety and unstable.

4

1.1.3   Previous Work in the Field of Corporate Financial Disclosure

Since the 1960's several researchers have investigated the quality of disclosure in CAFSs and CARs.   However, disclosure quality is a broad and abstract concept which cannot be measured directly because ". . . it does not possess inherent characteristics by which one can determine its intensity or quality like the capacity of an automobile" (Wallace, 1987, p.431).   Hence, different constructs of disclosure quality have been examined by different researchers including adequacy (e.g. Buzby, 1974), informativeness (e.g. Imhoff, 1992), timeliness (e.g. Courtis, 1976), understandability (e.g. Jones, 1996), comprehensiveness (e.g. Wallace, Naser and Mora, 1994) and extensiveness (e.g. Patton and Zelenka, 1997). One way of classifying these disclosure studies is to identify the number of countries examined and their stage of economic development.   Thus, they can be classified as either a single–country study, where the country examined is either developed or developing, or a cross–national comparative study, where the comparison is either between two or more developed countries or between a developed and a developing country.

Most of these studies focused on a single, and usually developed, country. Examples include the US (Cerf, 1961; Singhvi and Desai, 1971), the UK (Firth, 1979), Sweden (Cooke, 1989), Japan (Cooke, 1991), Spain (Wallace et al., 1994), and Switzerland (Raffournier, 1995). Apart from Singhvi's (1967) study on India, the field of corporate financial disclosure research was not extended to developing countries until the late 1980s.   Examples include South Africa (Firer and Meth, 1986), Nigeria (Wallace, 1987), Mexico (Chow and Wong–Boren, 1987), Jordan (Abu–Nassar and Rutherford, 1994), and Bangladesh (Ahmed and Nicholls, 1994).

In contrast, a literature review indicates that relatively few cross–national comparative disclosure studies have been done.   Even within this category, most studies have focused on developed countries (for example, Barrett, 1976 and Spero, 1979).   The

5

paucity of cross–national comparative studies in the literature on disclosure was noted by Gernon and Wallace (1995). They emphasised the need ". . . to move this type of research into the international domain by undertaking cross–national comparisons of accounting and disclosure quality and their determinants" (Gernon and Wallace, 1995, p.67).

1.2   THE RESEARCH PROBLEM AND THE SCOPE OF THE STUDY

1.2.1   Statement of the Problem

Based on the researcher's knowledge of the Cypriot and the Greek accounting environments, financial disclosure was identified as an important but unexplored research area in both countries. After a comprehensive review of the relevant literature and a series of unstructured interviews in each of the two countries, it was possible to narrow down the specific issue for investigation to that area which the researcher considered to be in need for research: to evaluate the quality of the financial disclosure practices of Cypriot and Greek companies. However, the research area of corporate financial disclosure is so broad as to be capable of generating many research endeavours. Consequently, the scope of the study has been limited to the investigation of the extensiveness of financial disclosure in the 1996 CAFSs of Cypriot and Greek companies. The reasons for focusing on this topic are summarised below.

1.2.2   Extensiveness

As noted earlier, disclosure quality is a broad and abstract concept and alternative constructs have been used to represent disclosure quality; these include adequacy, timeliness, understandability and extensiveness. Imhoff (1992, p101) defined disclosure quality as an evaluator's ". . . overall subjective assessment of the relevance, reliability and comparability of the accounting data produced by the reporting entity – in essence, the relative usefulness of the data, and the analyses based on the data".

In this study, extensiveness has been selected to be used as a proxy for disclosure quality mainly because it can easily be linked to disclosure usefulness. This is

because ". . . on the basis of the preceding (Imhoff's, 1992) definition and excluding the problem of information overload, the quality of disclosure in CARs would be expected to increase if more details were given on each information item of interest . . ." (Wallace and Naser, 1995, p.327). In the context of this study extensiveness is operationalised as the quantity and quality of information disclosed in the CAFSs. The quantity of disclosure items is captured by the number of mandatory information items disclosed, whereas quality of disclosure is captured by the disaggregation of the mandatory information items into sub–elements of information that should or could have been disclosed.

1.2.3   Financial Disclosure

Several categories of information disclosure have been investigated by accounting researchers including financial (e.g. Choi, 1973b), non–financial (e.g. Jones, 1986), segmental (e.g. McKinnon and Dalimuthe, 1993), and environmental (e.g. Wiseman, 1982). Within the context of financial disclosure, different types of information have been examined such as aggregate (e.g. Cerf, 1961), mandatory (e.g. Tai, Au–Yeung, Kwok and Lau, 1990) and voluntary (e.g. Cooke, 1991). Even for a particular type of information, different definitions of each type of information have been used. For example Tai et al., (1990) defined mandatory items as those required by law, stock exchange or professional pronouncements, whereas Cooke's (1993) definition included only those stipulated by law.

In the context of this study financial disclosure is defined as the release of quantitative and non–quantitative information disclosed in the 1996 CAFSs of Cypriot and Greek companies. The inclusion of both quantitative and non–quantitative information is based on the assumption that disclosure of the latter normally enhances an understanding of the former (Belkaoui, 1994). It has been decided to focus on

8

mandatory information items for the following reasons. First, the amount of information required to be disclosed in both Cyprus and Greece is extensive, and by disaggregating those mandatory items into different sub–elements of information, very detailed and comprehensive lists can be produced that can capture the quantity and quality of corporate disclosure. Second, Cypriot and Greek corporate reporting has not yet started to emulate to a significant extent the practice of providing information items that are entirely voluntary. Finally, to investigate the disclosure of information items that are entirely voluntary may swamp the very thing being looked for – the extensiveness by which the mandatory information elements are disclosed (Wallace and Naser, 1995).

Nevertheless, although the information items to be investigated are mandatory, the study also captures an element of voluntary disclosure (as in the case of Wallace et al., 1994 and Wallace and Naser, 1995). This is because the information items required to be disclosed (mandatory information) have been disaggregated into sub–elements of information that should or could have been disclosed; usually the disclosure of those sub–elements of information is essentially a matter of managerial choice (Barrett, 1976).

1.2.4 Corporate Annual Financial Statements

Although some researchers have evaluated the quality of financial reporting by non–profit–making organisations such as governmental units (e.g. Robbins and Austin, 1986), the most popular type of organisations investigated in disclosure studies, and the one of interest in this research, is that of limited companies. The main reasons for selecting these organisations is firstly because they represent the main form of business in both Cyprus and Greece and, secondly, because of the absence of public disclosure by other forms of business organisations (such as partnerships and sole proprietors). It has been decided to exclude financial companies (banks, insurance

companies and leasing corporations) from the investigation because they are exempted from certain disclosure requirements or are required to disclose specific items that are unique to their type of activities. Thus, including them in the samples would preclude the construction of a common disclosure measuring instrument for all companies.

There are different mediums via which companies communicate information to users that have been investigated in the literature; these include interim reports (e.g. Leftwich, Watts and Zimmerman, 1981) and the chairman's narratives (e.g. Jones, 1986). However, the one examined in this study is the set of CAFSs. This is because the set of CAFSs is generally recognised as the most appropriate way in which information can be presented in order to meet the objective of financial reporting (ASB, 1996). Additionally, the set of CAFSs is the only general purpose financial reporting document which is widely available to all user groups and is subject to an independent examination by the auditors of the company.

1.2.5   Cyprus and Greece

There are two reasons for selecting Cyprus and Greece. The first is that in spite of their increasing economic importance, information about the Cypriot and Greek corporate disclosure practices is virtually non–existent in the literature. Hence, a related disclosure study can fill a gap in the literature. Second, the researcher is in a strategic position to undertake a study on these two countries without facing all the problems that, according to Wallace and Gernon (1991), render International Comparative Financial Accounting Research (ICFAR) a "gamble with an uncertain pay off"[1] (Wallace and Gernon, 1991, p.250).

---

[1] The researcher has qualified as an accountant/auditor having worked in the profession in Cyprus. He has also been an accounting lecturer in Cypriot colleges and is currently the Associate Dean and the Director of Professional studies at Intercollege where he is in charge of professional accountancy courses in Cyprus and Greece.

1.3   JUSTIFICATION AND GOALS OF THE STUDY

1.3.1   Justification

The purpose of this study is to extend the field of corporate financial disclosure research to two developing[2] eastern Mediterranean countries, Cyprus and Greece. This is achieved by undertaking an empirical investigation of the financial disclosure practices of Cypriot and Greek companies. This study can be justified on the following grounds.

First, this study should be an addition to the corporate disclosure literature. This is because a literature review has indicated that in spite of the increasing economic importance of both Cyprus and Greece, little or virtually no information exists about the corporate disclosure practices in the two countries. The increasing economic importance of the two countries can be evidenced by the fact that Greece is a member of the European Union (EU) and an emerging capital market (Sigma Securities, 1996). Cyprus, on the other hand, is (at the beginning of 2001) a prime candidate for EU membership. Hence, a study of the Cypriot and Greek corporate disclosure practices can represent a contribution to the corporate disclosure literature and an addition to knowledge.

Second, the results of this study can be of particular importance to various economic and academic groups. For example, the empirical evidence provided can help users of CAFSs in the two countries to determine whether accounting information disclosed therein is of a sufficiently high quality and whether it can be relied upon as a useful

---

[2] Lipsey (1983) states that we cannot have a unique ranking of various countries in terms of the degree of development because development of the economy can be measured in several ways. A country can be classified under one measurement as underdeveloped and as developed under another. In this study, the term "developing" is used for both the Cypriot and Greek economies as it is the term usually used by local economists to describe both economies.

basis for decision making. The results of this study can also help Cypriot and Greek companies determine whether their current disclosure practices are adequate and decide whether a change in the way they communicate with external parties is needed. Likewise, the results of the study can help policy makers in Cyprus and Greece determine whether any corporate disclosure deficiencies exist and point their attention to areas where improvements are needed. Finally, the empirical evidence provided by the study can represent useful research material for accounting disclosure researchers, as it will provide them with information and evidence about the Cypriot and Greek accounting environments.

1.3.2   Research Objectives and Research Questions

To facilitate the transformation of the main research problem into specific research objectives and research questions and select the appropriate strategies to address them, a hierarchical structure of the research problem was prepared (Figure 1.1). The main research problem was broken down into four research objectives:

(1) To investigate empirically the extensiveness of the Cypriot and Greek corporate mandatory disclosure practices.

(2) To examine the relationship between each of a number of specific corporate characteristics (found to be explanatory of corporate disclosure in other countries) and the Cypriot and Greek corporate mandatory disclosure practices.

(3) To assess whether the variations in the extensiveness of Cypriot and Greek corporate mandatory disclosure practices can be explained by the selected corporate characteristics together.

FIGURE 1.1:
HIERARCHICAL STRUCTURE OF THE RESEARCH PROBLEM

MAIN RESEARCH PROBLEM

Evaluate the quality of the financial disclosure practices of Cypriot and Greek companies

RESEARCH OBJECTIVES

To investigate empirically the extensiveness of the Cypriot and Greek corporate mandatory disclosure practices

To examine the relationship between each of a number of specific corporate characteristics and the Cypriot and Greek corporate mandatory disclosure practices

To assess whether the variations in the extensiveness of Cypriot and Greek corporate mandatory disclosure practices can be explained by the selected corporate characteristics together

To make appropriate comparisons between the ways in which corporate characteristics influence Cypriot corporate mandatory disclosure practices and the ways in which they influence Greek corporate mandatory disclosure practices

RESEARCH QUESTIONS

What is the extent of mandatory information disclosure in the CAFSs of Cypriot and Greek companies?

Is there any association between the extent of mandatory disclosure by Cypriot and Greek companies and each of a number of selected corporate characteristics?

Can the variations in the extent of corporate mandatory disclosure practices of Cypriot and Greek companies be explained by the selected corporate characteristics together?

What are the similarities of, and differences between, the relationships between corporate characteristics and corporate mandatory disclosure found for Cypriot companies and those found for Greek companies?

ADDRESSING THE RESEARCH QUESTIONS

GENERATION OF DISCLOSURE INDEXES

Measure the extent of corporate disclosure using the index methodology

BIVARIATE ANALYSES

Measurement of association between the selected corporate characteristics and the disclosure indexes

CROSS-SECTIONAL MULTIVARIATE REGRESSION MODELS

Examination of the multivariate relationship between the disclosure indexes and the selected corporate characteristics

COMPARATIVE ANALYSIS

Qualitative and quantitative comparisons between the results obtained for research questions 1, 2 and 3

(4) To make appropriate comparisons between the ways in which corporate characteristics influence Cypriot corporate mandatory disclosure practices and the ways in which they influence Greek corporate mandatory disclosure practices.

To accomplish these objectives the following specific research questions were investigated:

(1) What is the extent of mandatory information disclosure in the CAFSs of Cypriot and Greek companies?

(2) Is there any association between the extent of mandatory disclosure by Cypriot and Greek companies and each of a number of selected corporate characteristics?

(3) Can the variations in the extent of corporate mandatory disclosure practices of Cypriot and Greek companies be explained by the selected corporate characteristics together?

(4) What are the similarities of, and differences between, the relationships between corporate characteristics and corporate mandatory disclosure found for Cypriot companies and those found for Greek companies?

1.3.3   Addressing the Research Questions

The nature of the research problem, the associated research objectives set, as well as the research questions generated, call for a hypothesis–testing investigation. Thus, this study is hypothesis–testing in nature because it aims to offer an enhanced

understanding of the relationships that exist among Cypriot and Greek corporate financial disclosure and various corporate characteristics.

The first research question was empirically addressed by measuring the extent of disclosure by Cypriot and Greek companies. To measure disclosure, an index for each country was constructed.

The second question was addressed separately for each country, by measuring the degree of statistical association between the extent of the corporate disclosure practices of the selected companies and each of a number of corporate characteristics. The characteristics examined were: (1) Company size; (2) Company age; (3) Company profitability; (4) Company liquidity; (5) Industry type; (6) Listing status; and (7), Auditor type. The relationship of the selected corporate characteristics with the corporate disclosure practices was explored by statistically testing the following hypotheses (stated in the alternative form):

H1:   *There is an association between a company's size and the extent of its disclosure practice.*

H2:   *There is an association between a company's age and the extent of its disclosure practice.*

H3:   *There is an association between a company's profitability and the extent of its disclosure practice.*

H4:   *There is an association between a company's liquidity and the extent of its disclosure practice.*

H5:   *The extent of a company's disclosure practice varies depending on the industry to which it belongs (whether it is a manufacturer, conglomerate or other).*

H6(C):   *The extent of disclosure of a Cypriot listed company is greater than that of*

              an unlisted one.

H6(G):   *The extent of disclosure of a Greek main–market listed company is*

              greater than that of a parallel–market listed one.

H7(C):   *The extent of disclosure of a Cypriot Big 5 audited company is greater*

              than that of a Cypriot non–Big 5 audited one.

H7(G):   *There is an association between a Greek company's auditor–type and the*

              extent of its disclosure practice.

The third research question was addressed by specifying one cross–sectional regression model for each country. This enabled an examination of the multivariate relationship between the extent of corporate disclosure (dependent variable) and the identified corporate characteristics (independent variables) for the samples in each country.

Finally, the fourth research question was addressed by undertaking qualitative and quantitative comparisons between the results obtained for research questions 1, 2 and 3.

1.4 OVERVIEW OF THE RESEARCH PROCESS

The research was conducted using the hypothetico–deductive method. The selection of this method has mainly been determined by the nature of the problem of interest and the type of research questions set. These call for the development of a general theoretical framework for corporate financial disclosure, the formulation of testable hypotheses, the collection of relevant data from each country, and the analysis of the data in order to provide an answer to the research problem. An alternative reason for employing this approach is because its widespread use in the literature indicates that it is currently the most appropriate method for investigating national corporate disclosure practices. The alternative, inductive method, is not considered appropriate for this study, because it proceeds in the opposite direction: the researcher begins with data in hand and generates hypotheses and a theory from the ground up (Selltiz, Wrightsman and Cook, 1981).

Sekaran (1992) states that the hypothetico–deductive method of research involves a step–by–step logical and organised method to identify the research problem, gather and analyse the data, and draw valid conclusions. The research process starts with the identification of the broad research area and proceeds to preliminary data gathering, delineation of the research problem, development of the theoretical framework, generation of the research hypotheses, construction of the research design, and data collection and analysis. In an attempt to follow this purposive and rigorous approach, as well as in order to keep the research within a reasonable time scale, network analysis was employed. The main components of the research process were broken down into activities (Table 1.1) and a procedural network was prepared (Figure 1.2). The network analysis undertaken identified the critical stages of the study and pinpointed the activities that could be undertaken simultaneously.

Nª	Main Component of the Research Process	Activity Description	Activity Code	Preceding Activity Code
1.	*Observation*	- Preliminary study & literature review	A	-
		- Selection of topic	B	A
2.	*Preliminary Data Gathering*	- Intensive literature review in Cyprus and the UK	C	B
		- Preliminary data collection (general information about Cyprus and Greece)	D	B
		- Interviews in Cyprus and Greece	E	C, D
3.	*Problem Definition*	- Delineate the research problem	F	E
		- Present thesis proposal & registration	G	F
4.	*Descriptive Analysis*	- Detailed data collection (detailed information about Cypriot and Greek accounting environments)	H	F
		- Analyse regulatory framework of accounting in Cyprus and Greece	I	H
		- Draft first chapters	J	G, I
5.	*Theoretical Framework*	- Detailed review of relevant literature	K	I
		- Variables identified	L	J, K
6.	*Generation of Research Hypotheses*	- Visualise the theoretical relationships	M	L
		- Generate the research hypotheses	N	M
7.	*Research Design*	- Write to companies requesting their CAFSs	O	K
		- Design disclosure scoring instruments	P	I
		- Follow up responses from companies	Q	O
		- External validation and modification of scoring instruments	R	P
		- Test response validity	S	Q
8.	*Data Analyses, Interpretation & Deduction*	- Scoring of CAFSs	T	R, S
		- Carry out statistical analyses	U	N, T
		- Discuss preliminary results	V	U
		- Carry out any further analyses needed and submit first draft	W	T, V
		- Final amendments, typing and submission	X	W
		- Examination	Y	X

18

FIGURE 1.2:
PROCEDURAL NETWORK OF THE RESEARCH PROCESS

```
                    ┌─────────────────────┐
                    │  Preliminary study   │
                    │  & literature review │
                    └─────────────────────┘
                               │
                               ▼
                    ┌─────────────────────┐
          ┌─────────│   Selection of topic │─────────┐
          │         └─────────────────────┘         │
          ▼                                          ▼
┌─────────────────────┐                    ┌─────────────────────┐
│ Intensive literature │                    │    Preliminary       │
│     review           │                    │  data collection     │
│ in Cyprus and the UK │                    └─────────────────────┘
└─────────────────────┘                              │
          │         ┌─────────────────────┐          │
          └────────▶│ Interviews in Cyprus │◀─────────┘
                    │    and Greece        │
                    └─────────────────────┘
                               │
                               ▼
                    ┌─────────────────────┐
          ┌─────────│  Delineate the       │──────────┐
          │         │  research problem    │          │
          ▼         └─────────────────────┘          ▼
┌─────────────────────┐                    ┌─────────────────────┐
│ Present thesis       │                    │ Detailed data        │
│ proposal             │                    │ collection           │
│ & registration       │                    └─────────────────────┘
└─────────────────────┘                              │
          │                                          ▼
          ▼                    ┌─────────────────────────┐
┌─────────────────────┐       │ Analyse regulatory       │
│ Draft first chapters │◀──────│ framework of accounting  │─────────┐
└─────────────────────┘       │ in Cyprus and Greece     │         │
          │                    └─────────────────────────┘         │
          ▼                               │                         ▼
┌─────────────────────┐       ┌─────────────────────┐   ┌─────────────────────┐
│ Variables identified │◀──────│ Detailed review of   │   │ Design disclosure    │
└─────────────────────┘       │ relevant literature  │   │ scoring instruments  │
          │                    └─────────────────────┘   └─────────────────────┘
          ▼                               │                         │
┌─────────────────┐  ┌──────────────┐  ┌─────────────────┐  ┌─────────────────────┐
│ Visualise the   │  │ Generate the │  │ Write to        │  │ External validation  │
│ theoretical     │─▶│ research     │  │ companies       │  │ and modification of  │
│ relationships   │  │ hypotheses   │  │ requesting      │  │ scoring instruments  │
└─────────────────┘  └──────────────┘  │ their CAFSs     │  └─────────────────────┘
                            │           └─────────────────┘            │
                            │                    │                     │
                            │           ┌─────────────────┐            │
                            │           │ Follow up        │           │
                            │           │ responses        │           │
                            │           │ from companies   │           │
                            │           └─────────────────┘            │
                            │                    │                     │
                            │           ┌─────────────────┐  ┌─────────────────┐
                            │           │ Test response   │─▶│ Scoring of CAFSs │
                            │           │ validity        │  └─────────────────┘
                            │           └─────────────────┘          │
                            ▼                                         │
┌─────────────────┐  ┌─────────────────┐                            │
│ Discuss          │◀─│ Carry out        │◀───────────────────────────┘
│ preliminary      │  │ statistical      │
│ results          │  │ analyses         │
└─────────────────┘  └─────────────────┘
          │                    │
          │           ┌─────────────────┐
          │           │ Carry out any    │
          └──────────▶│ further analyses │◀──────────────────────────┘
                      │ needed and       │
                      │ submit first     │
                      │ draft            │
                      └─────────────────┘
                               │
                               ▼
                      ┌─────────────────┐
                      │ Final amendments,│
                      │ typing and       │
                      │ submission       │
                      └─────────────────┘
                               │
                               ▼
                      ┌─────────────────┐
                      │   Examination    │
                      └─────────────────┘
```

1.5 ORGANISATION OF THE STUDY

The study is divided into four parts.

Part I, consisting of Chapters 1 and 2, introduces the study. Chapter 1 specifies the purpose of the study and the underlying research problem. It also establishes the relationship between the present study and previous studies in the research area and sets the boundaries within which the study was conducted. Chapter 2 identifies those factors that exert considerable influence on the development of a country's accounting and disclosure practices, assesses their impact within the Cypriot and Greek environments and examines each country's regulatory framework of financial accounting and reporting.

Part II, consisting of Chapters 3 and 4, reviews the relevant literature on corporate financial disclosure. Chapter 3 synthesises the conceptual framework for corporate financial disclosure and identifies the variables that are likely to affect the research problem. Chapter 4 reviews those corporate disclosure studies that, in the opinion of the researcher, have been the most influential in the area and establishes the appropriate research methodology to be used in the present study.

Part III, consisting of Chapters 5 to 8, is the empirical part of the study. Chapter 5 develops several hypotheses about the Cypriot and Greek corporate disclosure practices based on the information and prior empirical evidence that were presented in Chapters 2, 3 and 4. Chapter 6 clarifies the nature of the research design, sheds light on the data collection and sampling techniques, and explains the methodological techniques used to measure corporate disclosure and the selected corporate characteristics. Chapters 7 and 8 empirically investigate the corporate disclosure

practices of Cypriot and Greek companies, and answer the three research questions posed.

Finally Part IV, consisting of Chapters 9 and 10, is the concluding part of the study. Chapter 9 compares the Cypriot and Greek corporate disclosure practices. Chapter 10 presents the main conclusions of the study and the related policy implications, considers the limitations of the study, and suggests possible future research endeavours.

1.6   SUMMARY

Chapter 1 specified the purposes of the study and the underlying research problem. It also presented the research problem and outlined the research objectives and the associated research questions to be investigated. Finally, Chapter 1 explained briefly the different methods used to address the research questions and gave a broad overview of the research procedure followed.

CHAPTER 2

THE CYPRIOT AND GREEK ACCOUNTING ENVIRONMENTS

2.1   INTRODUCTION

The aim of this chapter is to review the most important factors that affect the Cypriot

and Greek accounting environments. A review of the Cypriot and Greek accounting

environments is important to this study for many reasons. First, it presents the main

characteristics of the two financial accounting and disclosure frameworks and gives a

useful insight of the respective accounting environments. Second, it identifies specific

variables that may exert an influence on corporate disclosure in each country. Finally,

it helps in the development of the research hypotheses and assists in the interpretation

of the empirical results. The information presented is based on a review of the

relevant literature on Greek and Cypriot accounting, on a series of unstructured

interviews[3] and on the researcher's personal experience as a practising accountant

and academic in the two countries. Unless otherwise referenced, the conclusions

drawn represent the subjective opinions of the researcher.

---

[3] The individuals interviewed were academics or practitioners with whom the researcher had an academic or professional relationship. The interviews typically lasted between one to two hours and were conducted in order to elicit the opinion of the interviewees about the factors that influence Cypriot and Greek accounting. The questions asked depended on the area of specialisation of each individual. For example, during the interviews with stockbrokers the main topic of discussion was the development and operation of the local stock exchange, whilst in the case of auditors the interview focused on issues such as the local accountancy profession, education etc. The following persons were interviewed in Cyprus in May/June 1996 and January 1997: Dr. Andreas Charitou and Dr. Nicos Vafeas (academics – University of Cyprus); Mr. Costas Toumbouris and Mr. Lambros Panayiotides (analysts/stockbrokers – CLR Stockbrockers); Mr. Phidias Pilides and Mr. Achilleas Chrysanthou (accountants/auditors – Coopers and Lybrand); Mr. Michael Nicolaou and Mr. Panayiotis Loizides (Officers of the Cyprus Chamber of Commerce and Industry); and Mr. Nondas Metaxas (General Manager of the Cyprus Stock Exchange). The following persons were interviewed in Greece in December 1996 and April 1997: Dr. Apostolos Ballas (academic – Athens Laboratory of Business Administration) and Dr. Vasilios Filios (freelance academic); Mr. George Linatsas and Mr. Panos Karastamatis (analysts/stockbrokers – Sigma Securities); Mr. George Samothrakis, Ms. Despina Andreadou (accountants/auditors – Coopers and Lybrand); Mr. John Christodoulides (accountant/auditor – Ernst and Young); Mr. Richard Caseley (accountant/auditor – Pricewaterhouse); Mr. Yiangos Charalambous (accountant/auditor – KPMG); Mr. George Cambanis and Ms. Dina Karsas (accountants/auditors – Deloitte and Touche); and Ms. I Manolioudaki and Ms. F Mendrinou (Administrative Officers of the Greek Ministry of Commerce). Their kind assistance is gratefully acknowledged.

2.2 ACCOUNTING AND ITS ENVIRONMENT

Accounting is a language of business, and as a language, it evolves to reflect environmental, technological and socio–cultural changes. This explains why its objectives are re–defined and its concepts, techniques and priorities changed through time: to meet the changing demand and influences of the environment within which it operates, and keep accounting information technically and socially useful. This relationship, however, is not a one–way process. Accounting is not only a product of its environment but at the same time a force for changing it (Pelides, 2001). By feeding back information, accounting enables individuals and societies to undergo critical self analysis, and to re–evaluate their socio–political objectives and the alternative means of achieving them.

A relationship between accounting and its environment has long been hypothesised or empirically demonstrated by many researchers (e.g. Mueller, 1967; Frank, 1979). Nevertheless, although research has shown that environmental factors exert considerable influence on the development of accounting and disclosure practices, it is a matter of some controversy as to which factors are the most influential. For example, economic variables (e.g. Nair and Frank, 1980), political systems (e.g. Goodrich, 1986) and culture (e.g. Hofstede, 1985) have, on different cases, been reported as being the most influential.

The environmental influences on accounting, as illustrated by Cooke and Wallace (1990), have been selected as the basis for analysing and comparing the Cypriot and Greek accounting environments (Figure 2.1). The reason for selecting this framework is twofold. First, it includes all the main factors which are, in the opinion of the present researcher, the most influential in the context of Cyprus and Greece. Second, most of the factors included in the model are usually referred to in the literature as "key" or

"important" environmental influences on accounting and disclosure practices (e.g. Radebaugh and Gray, 1997).

FIGURE 2.1:
ENVIRONMENTAL INFLUENCES ON ACCOUNTING

Internal Environment

- Stage of Economic Development
- Goals of Society
- Legal Rules
- Political Systems
- Economic Systems
- Level of Education
- Financial Press
- Cultural Variables

Nominal Accounting Regulation

by State: Company Laws and Codes
by Accounting Bodies: Self–Regulation
by Community: Accounting Standards Board
by Market: GAAP

Effective Accounting Regulation

External Environment

- Colonial History
- Impact of TNCs
- Regional Economic Communities
- International Trade
- International Accounting Standards
- International Movements of Accounting Firms and Professionals

Enforcement Mechanism

- SEC
- Stock Exchange
- Accounting Profession
- Judiciary

Adapted from: Cooke and Wallace (1990).

25

2.3 THE MAJOR ENVIRONMENTAL INFLUENCES ON ACCOUNTING AND DISCLOSURE PRACTICES

2.3.1 Internal Environment

(a) *Legal System*: A country's legal system can be a persuasive force in the development of its corporate accounting and disclosure practices. *Common law* countries, such as the U.K. and the U.S., are characterised by a limited amount of statute law which is interpreted by courts. In these countries, company and accounting laws do not prescribe rigid rules to cover corporate behaviour. Instead, they specify general principles which are either applied using professional judgement or extended by detailed regulations issued by accounting bodies. In contrast, *codified law* countries such as Germany and France, have legal systems based on the Roman *jus civile*, where rules are linked to ideas of justice and morality and they become doctrine. Accounting and financial reporting are to a large extent a branch of company or commercial law, and have detailed and comprehensive regulations covering the recording and communication of economic information (Nobes and Parker, 1995).

(b) *Political System*: The extent to which the political environment influences accounting practice and disclosure practices usually depends on the nature of the political system and the degree of political stability. In countries where the political system provides for a centrally planned economy, there is minimum private ownership of business entities and as a result no need of communication of information to outsiders. In contrast, in countries with minimum state ownership of business entities there is a need to communicate information to all capital providers in order to enable them to assess management's stewardship. Furthermore, in contrast to countries with stable democratic systems, in those countries where there is political unrest, civil or national wars or a lack of a strong and stable government, the people (and possibly the

government itself) will not be too concerned about accounting development (Radebaugh, 1975).

(c)   Economy: The nature of a country's economy as well as the extent of economic growth and development, can have a shaping impact on national accounting and disclosure practices. For example, in economies dominated by service industries the problems of accounting for intangibles (such as goodwill and brands) are usually significant. *It is also generally accepted that as agricultural economies industrialise, new accounting problems are posed (such as leasing and deferred tax).* These developments usually call for a reliable accounting system with high levels of disclosure, in order to attract outside sources of finance (Adhikari and Tondkar, 1992).

(d)   Socio–Cultural Variables: Culture describes a system of societal or collectively held values. Hofstede (1980, p.25) defined culture as ". . . the collective programming of the mind which distinguishes the members of one human group from another". Hofstede (1984) described four societal value dimensions as the main elements of a common structure in cultural systems. First, Individualism versus Collectivism. Individualism is concerned with a preference for a loosely knit social framework in society whereas Collectivism is concerned with a preference for a tightly knit social framework. The fundamental issue addressed by this dimension is the degree of interdependence a society maintains among individuals. Second, Large versus Small Power Distance. People in Large Power Distance societies accept a hierarchical order in which everybody has a place which needs no further justification. People in Small Power Distance societies strive for power equalisation and demand justification for power inequalities. The fundamental issue addressed by this dimension is how society handles inequalities among people when they occur. Third, Strong versus Weak Uncertainty Avoidance. Strong Uncertainty Avoidance societies maintain rigid codes of belief and behaviour and are intolerant towards deviant persons and ideas. Weak Uncertainty Avoidance societies maintain a more relaxed

atmosphere in which practice counts more than principles and deviance is more easily tolerated. The fundamental issue addressed by this dimension is how society reacts on the fact that time only runs one way and that the future is unknown. Finally, Masculinity versus Femininity. Masculinity stands for a preference in society for achievement, heroism, assertiveness, and material success. Femininity, on the other hand, stands for a preference for relationships, modesty, caring for the weak, and the quality of life. The fundamental issue addressed by this dimension is the way in which society allocates social roles to sexes.

Following Hofstede's research, Gray (1988) identified four accounting values at the subcultural level of the accountant and accounting practice, as significantly related to Hofstede's societal values. First, Professionalism versus Statutory Control. Professionalism refers to a preference for the exercise of individual professional judgement and the maintenance of professional self–regulation, as opposed to Statutory Control which refers to compliance with prescriptive legal requirements and statutory control. Second, Uniformity versus Flexibility. Uniformity refers to a preference for the enforcement of uniform accounting practices between companies and for the consistent use of such practices over time, as opposed to flexibility in accordance with the perceived circumstances of individual companies. Third, Conservatism versus Optimism. Conservatism refers to a preference for a cautious approach to measurement so as to cope with the uncertainty of future events, whilst optimist refers to a more optimistic and laissez–faire approach. Finally, Secrecy versus Transparency. Secrecy describes a preference for confidentiality and the restriction of disclosure of information about the business only to those who are closely involved with its management and financing, whereas Transparency refers to a more transparent, open and publicly accountable approach.

Claiming that the cultural dimensions of Individualism and Uncertainty Avoidance exert the strongest influence on accounting, Gray (1988) hypothesised that the higher a

country ranks in terms of Individualism and the lower in terms of Uncertainty Avoidance, the more likely is to rank highly in terms of Professionalism, Flexibility, Optimism and Transparency. For example, it has been argued that in countries such as the U.K., the preference for independent professional judgement is consistent with a preference for a loosely knit social framework and weak uncertainty avoidance (Intercollege, 1997).

Although without their criticisms, Hofstede's (1980, 1983)[4] and Gray's (1988)[5] research have been attractive bases for studying the accounting profiles of different countries. For example, Salter and Niswander (1995) note that Gray's (1988) model provides a workable framework to explain cross–national differences in accounting systems and practice.

(e)   **Goals of Society:** Linked to the socio–economic factors mentioned above, is the importance of societal goals and the role of accounting in serving them; an issue that was firstly put into an internationally comparative context by Mueller (1967). In his pioneering work, Mueller suggested four approaches to accounting development. In the case of the *macroeconomic pattern*, corporate goals are narrower than national goals and accounting develops as an adjunct of national economic policies (e.g. Sweden). In the *microeconomic pattern*, accounting derives its concepts and applications from economics and tries to reflect economic reality in its measurement and valuation methods (e.g. the Netherlands). In other countries, such as the U.S. and the U.K., accounting relies on itself and becomes an *independent discipline*; it produces its own concepts and methods from experience and constructs for itself a

---

[4] Hofstede's (1980, 1983) work is usually criticised on the ground that his findings cannot be generalised to all types of companies. For example, Gernon and Wallace (1995) question the ability of his value survey model, developed from the study of the world–wide employees of IBM, to predict the cultural values of accountants.

[5] For example, Fechner and Kilgore (1994) argue that current research has been inconclusive in explaining differences in accounting practices across countries in the cluster groupings identified by Hofstede (1980, 1983) and Gray (1988). They suggest that environmental influences are more likely to be a moderating rather than an intervening factor.

meaningful framework from the business needs it serves. Finally, in countries such as France, there has been a *uniform accounting development pattern* and accounting is used as an instrument of government policy. Standardisation of valuation, measurement and reporting practices is a common feature of such systems through a uniform chart of accounts and extensive use of public laws and regulatory agencies.

2.3.2   External Environment

(a)   History: A country's history often shapes its accounting practice. For example, many ex–British colonies have imported the Anglo–Saxon (British–American) accounting system while French accounting has been exported to several African and Asian countries (Choi and Mueller, 1992). However, because of the dynamic nature of a country's environment, this export of accounting systems has not been systematic. For example, although both Hong Kong and Australia have imported British accounting, the former has (since then) not significantly altered its regulatory environment, whereas the latter is moving away from a professionalism orientation to more governmental influence and control (Kirsch, 1994).

(b)   Multinational Corporations: Multinational corporations (MNCs) have played a major role in the spectacular increase in world trade since World War II. The degree and form by which they extend their operations, can influence the host country's accounting system. This influence can either be direct, through the transfer of accounting technology and know–how, or indirect through the transfer of an accounting sub–culture via the training of young accountants and the import of accounting concepts, bases and policies (Coopers and Lybrand, 1994).

(c)   International Trade: The nature and extent of a country's international trade, together with the business and accounting practices of a country's main trading

partners, can affect the local financial accounting and reporting system. For example, as businesses become more international, it becomes increasingly necessary for financial statements to be comparable across national boundaries. It is therefore expected that the greater the dependence of a country's economy on international trade, the more likely it is for local accounting regulators to give more emphasis to external accounting policies and regulations (KPMG, 1995).

(d) *Regional Economic Communities*: Membership of regional economic communities can also result in pressure from within those groups to harmonise accounting standards and practices. One of the most influential economic grouping has been the EU which has, through its Directives, brought significant changes to the accounting practices of certain European countries. Accounting techniques such as consolidation, and accounting concepts such as the true and fair view, have been alien to the accounting practices of several member states. Kirsch (1994) observes that even the U.K., because of EU influence, seems to be moving away from its professionalism mode towards greater governmental influence over reporting and disclosure. Furthermore, Alexander and Archer (1995) note that the EU Directives have been influential in non–EU countries as well, such as Turkey and Poland.

(e) *International Accounting Standards*: A major effort towards the development of international accounting standards is being made by the IASC. Many countries already use IASs as a benchmark or as a basis for national regulations. In addition many stock exchanges require or permit foreign issuers to produce reports based on these standards. The adoption of IASs has significantly improved the accounting and reporting practices in many countries, even though international accounting researchers such as Briston (1978) opine that the IASC is a "second best" solution for developing countries, as it is preferable to develop accounting systems which are capable of meeting their needs.

(f)   *International Accounting Firms*: It is natural for international professional practice to follow international business practice. This is the main reason why the accounting profession has been (and is) internationalising itself. Especially in the case of the so-called "Big 5" firms the global harmonisation of accounting and auditing practices has been impressive. Elaborate internal control procedures and specialised technical backup enable such firms to operate as global partnerships of partnerships (Choi and Mueller, 1992). As a result they have been importers and exporters of accounting techniques, concepts and practices around the world. They also play an important role in the development of the accounting profession and education in each country, via integrated training programmes and the introduction and maintenance of high standards of quality control and a strict code of ethics.

2.3.3   Regulatory Influences

(a)   *Accounting Profession*: Although the structure, strength, competence, size and independence of a country's accountancy profession are influenced by several environmental factors, the former also feed back into the type of accounting practised (Nobes and Parker, 1995). For example, the accounting and auditing requirements of the law, and the rights, duties and qualifications of the auditor, can influence the actual and perceived quality of financial statements prepared or audited. Finally, of crucial importance is the structure of the profession, entry qualifications, training period and practising regulations because they affect the profession's size, competence and social standing and have a consequential effect on the ability of the professional body to conceptualise, formulate and enforce accounting regulations and policies.

(b)   *Capital Market*: The structure of a country's capital market and, in particular, the dispersion of share ownership, the market size and its level of activity can influence its accounting system. For example, the need for published information is usually less

in countries where most capital is provided by the state, banks, or a small number of wealthy families (Intercollege, 1997). This is because capital providers have access to internal information and they do not rely on published reports to monitor their investments. In contrast, there is usually an increased need for accounting disclosure in countries where share ownership is relatively dispersed. It is also expected that the greater the size of a capital market and the higher the turnover in relation to its size, the greater is the likelihood that it will be more developed with more rigorous disclosure regulations (Adhikari and Tondkar,1992).

(c) *Tax System*: The extent to which tax rules influence financial accounting and reporting varies considerably among countries. In many European countries, such as Germany and France, accounting is used as an instrument of tax policy with taxation regulations determining, to a large extent, accounting measurements. On the other hand, in many countries that use the Anglo–Saxon accounting system, such as the U.K., accounting practices are independent of fiscal policies. For example, in these countries accounting profits are rarely equal to tax profits and the practice of deferred taxation is widespread. In contrast, in most countries that use the Franco–German accounting system tax regulations influence accounting measurements and deferred tax is normally alien (Nobes and Parker, 1995).

2.4 THE CYPRIOT ACCOUNTING ENVIRONMENT

2.4.1 Internal Environment

2.4.1.1 Political System

Cyprus is situated in the north–eastern corner of the Mediterranean basin at the cross-roads of three continents: Europe, Asia and Africa. It covers an area of 925,159 square kilometres, which makes it the third largest island in the Mediterranean, and has an estimated population in the region of 650,000 (Coopers & Lybrand, 1994). Cyprus is an independent sovereign Republic with a presidential system of government as established under the Constitution of 1960. The main executive body is the Council of Ministers which initiates legislation and is responsible for nearly all matters within the domain of the ministries. The legislature comprises the House of Representatives consisting of 56 elected members representing various political and social groups. The uprising of 1955 by the National Organisation of Cypriot Fighters (EOKA)[6] led to independence in 1960, putting the Cypriots in charge of their own affairs for the first time in history. Between 1960 and 1974, the country underwent political turmoil. It experienced bloody conflicts not only between the Greek and Turkish Cypriots[7], but also between different political groups within the Greek Cypriot community. The

---

[6] The main objective of the EOKA revolution was *enosis* (union with Greece) and not independence. The London–Zurich agreements provided for an independent republic and excluded *enosis*. Furthermore, it gave to Britain, Greece and Turkey the right, in the event of a breach of the settlement, to intervene unilaterally should joint action prove impossible. Many Greek Cypriots bitterly resented the fact that the *enosis* objective was abandoned. As a result they were divided into those who were staunch supporters of *enosis* and those who wished to maintain Cyprus as an independent unitary state.

[7] The Greek Cypriots felt that the 1960 constitution gave the Turkish Cypriots advantages disproportionate to their numbers in the population. In 1963, President Makarios proposed 13 constitutional amendments which were immediately rejected by Turkey. In late 1963, fighting broke out between the two communities and the Turkish Cypriots severed all contact with the government and withdrew into their enclaves. In 1964, the United Nations (UN) peacekeeping forces were sent to the island to try and bring the bi-communal conflict under control.

conflicts resulted in the Turkish invasion in 1974 which divided the island, as most

Turkish Cypriots fled to the Northern occupied part.[8]

As a result of the political conflicts during the 1960–74 period, the development of accounting was not a national priority. The government of President Makarios, who ruled from 1960 to 1977, did not have the time to replace or amend the legal framework for accounting inherited from the British. With the 1974 catastrophe, however, there came political tranquillity and a need for unity among the Greek Cypriots. The political harmony and economic recovery of the post–war years enabled businesses to flourish. The growing size, sophistication and complexity of businesses, and the intensification of competition among them, commanded highly refined accounting practices. The absence of comparability between financial statements, and the arbitrary nature of several accounting practices, exposed the rickety edifice of financial accounting and reporting. Nevertheless, the government hesitated to step in and regulate accounting matters, as it believed that this was a task for the accountancy profession and not for the government. In 1981, the Institute of Certified Public Accountants of Cyprus (ICPAC) decided that it had to act, and as consequence adopted the IASs along with the International Standards on Auditing (ISAs) (Intercollege, 1997). Overall, it can be said that since independence the government has been reluctant to intervene and, perhaps, prefers to leave the accounting profession take care of itself.

2.4.1.2   Legal System

The Cypriot legal system is structured according to that of its former British colonial masters. In general, sources of ideas and authority from British Law are also used

---

[8] Due to the political situation in Cyprus, this study focuses on the accounting environment and corporate disclosure practices in the part of the island which is under the control of the government recognised by the United Nations (South).

extensively in Cyprus Law (Vafeas, Trigiorgis and Georgiou, 1998). Commercial activities and company legislation are greatly influenced by British accounting values. The Cypriot Companies Act of 1951 is virtually a replica of the U.K.'s 1948 Companies Act. This Act, which up to the present (2001) has not been amended, has been the main source of accounting regulation in Cyprus up to 1981, when the ICPAC voluntarily adopted the IASs.

Cyprus can be classified as a common law country. Though the Companies Act is the main source of legal regulation of accounting in Cyprus, its provisions are so general to allow considerable flexibility. The Act does not prescribe in any extensive detail how companies should organise their bookkeeping and report their financial results and position. The Act mandates the application of the *true and fair view*, a concept which is prevalent in Cyprus (Vafeas et al., 1998). This concept, which is neither defined nor explained in the Act, is determined via the exercise of professional judgement and having regard to the individual circumstances of a case, rather than an implementation of prescriptive and detailed legal requirements. This leaves enough room for companies to record and present information in a form and content in which, according to their opinion, suits their individual circumstances.

2.4.1.3 Economy

The Cypriot economy is based on the free enterprise system, with the private sector being the backbone of economic activities, and the government being responsible for planning and safeguarding the system and for providing public utilities (Coopers and Lybrand, 1994). Before independence, Cyprus had a rural economy based on agriculture. The post–independence period saw economic development and uninterrupted growth. During this period, Cyprus has mainly been an exporter of minerals and agricultural products. Even though economic prosperity was destroyed along with peace in 1974, the post war era was characterised by a remarkable

recovery. The solidarity among all socio–economic groups and the support from the international community, enabled the island to see an unprecedented economic boom through a return of business confidence and an upturn in investment levels. By the late 1970s unemployment was eliminated, the refugees were rehoused[9], and a restructuring of the economy made the manufacturing and service sectors more important than agriculture (Coopers and Lybrand, 1994). In the 1980s the basic strategic objective was to accelerate the process of establishing Cyprus as a regional services, tourist and business centre, an objective which was realised by the early 1990s. By the late 1990s the sectoral structure of the economy exhibited a continuously growing importance of the service sector, reflecting the comparative advantages of Cyprus which stem from the high educational level of the population, the strategic location of the island and the relatively low level of prices (Planning Bureau, 1996b). Sharelink (2000) notes that the main reason for the improvement in the macroeconomic indicators of the country during the late 1990s was the excellent performance of the service sector of the Cypriot economy. Zampelas (2000) points out that (at the time of writing) the service industry generates 70 per cent of the GDP of Cyprus and employs 55 per cent of the gainfully active population.

The evolution of Cyprus from an agricultural and undeveloped economy in the 1960s and 1970s, into an open free market and an international tourist and business centre in the 1990s, has significantly influenced financial accounting and reporting. In the former period the role of accounting was mainly that of record–keeping, in order to meet the needs of trading ventures and the provision of historic information to owners and managers. Within this framework, the need for sophisticated information and comprehensive financial statements was limited. Pelides (2001) notes that during this period the role of a qualified accountant was primarily that of a bookkeeper and final accounts preparer. Consequently, the loose provisions of the Companies Act 1951

---

[9] A result of the 1974 invasion was the dispersion of about 200,000 Greek Cypriots. This figure was approximately one third of the population at that time.

provided an acceptable regulatory framework of accounting and were consistent with the business needs of the time. With the post–war economic development there came an increase in the number of external users of published financial statements and a need for improved financial disclosure in order to attract alternative forms of finance. It was felt that within the bounds of prescription under the law, the quantity and quality of information disclosed were inadequate to cope with the increasing needs for current, reliable and sophisticated information for all corporate stakeholders. These economic pressures underpinned the ICPAC's initiative to adopt voluntarily the IASs and change the role of accounting from that of a bookkeeping mechanism to a more sophisticated management information system. Zampelas (2000) stresses that the decision of ICPAC to adopt the IASs, contributed a lot to the success of the service industry and, consequently, the success of the Cypriot economy in general.

2.4.1.4 Socio–cultural Variables

Historical and archaeological evidence indicate that the bulk of the islanders are Greek Cypriots (Coopers and Lybrand, 1994). Since the 1974 invasion the bulk of the Turkish population live in the northern occupied part of the country. Greek and Turkish are the official languages of the Republic but English, following the British rule for over 70 years, inevitably developed as a third common language. It is now regularly used in government offices, courts, commerce and the accounting profession. The attitude of Cypriots towards business in general and accounting in particular, is favourable. The accounting profession is held in high esteem and the majority of accountants, especially those educated and trained in the U.K., are successful professionals holding highly paid positions in the public and private sectors (Hadjiroussos, 1998).

Important structural elements of the Cypriot culture are those of Individualism and weak Uncertainty Avoidance. On average, there is a preference for a loosely knit

social framework, where there is more emphasis on independence and a respect for individual endeavour. Furthermore, there is a relaxed social and business atmosphere where practice counts more than principles and a variety of professional judgements tends to be more easily tolerated (Intercollege, 1997). This has probably been the result of the huge numbers of tourists arriving every year[10] and an increase in the number of people establishing a permanent residence in the island, especially British, Russians, Serbs and Lebanese. In line with Gray's (1988) propositions[11], these cultural characteristics are consistent with the Cypriot accounting values of Professionalism and Flexibility. A preference for a loosely knit social framework is consistent with a preference for the exercise of individual judgement within a self-regulated environment. The broad accounting regulations imply not just compliance with a set of rules, but also reliance on the individual's expert opinion and choice of the appropriate course of action in each unique situation (Professionalism). Additionally, a belief in fair play and a preference for as few rules as possible, are consistent with a preference for flexibility of accounting practices to suit the circumstances of individual companies (Flexibility).

2.4.1.5   Goals of Society

As in the U.K., accounting in Cyprus has developed as an independent discipline. Vafeas et al., (1998) note that the principal providers of capital in Cyprus are private investors and that the financial reporting system has a clear orientation towards investors, in line with the Anglo–Saxon reporting model. Accounting is mainly viewed as a service function. Accounting practitioners believe that its framework reflects the pressures, needs, priorities and peculiarities of the business environment within

---

[10] In latest years the number of tourist arrivals has grown to more than 2 million per annum; this figure is approximately 3 times the population of the island.

[11] Gray (1988) hypothesises that the higher a country ranks in term of Individualism and the lower in terms of Uncertainty Avoidance, then the more likely it is to rank highly in terms of Professionalism, Flexibility, Optimism and Transparency.

which accounting operates. This is because the Anglo–Saxon accounting system left behind by the British, could not have been rejected or radically changed given the political conflicts and economic under–development of the early post independence years. A macroeconomic or uniform accounting pattern could not flourish given the lack of a strong and close coordination of business with national economic policies and a lack of strict administrative control of the business environment. Similarly, a microeconomic approach could not prosper since Cyprus has never experienced any significant inflation problems to make capital maintenance a major accounting issue (Coopers and Lybrand, 1993). These factors can explain why Cypriot accounting followed a trial and error method of development, and tended to develop its own conceptual framework, derived on an ad–hoc basis from its own business practices.

2.4.2   External Environment

2.4.2.1   History

The country's prehistory goes far back to the ninth millennium BC when a number of Neolithic settlements were established. At 1300 BC the Ancient–Greeks arrived to establish city–kingdoms and transform Cyprus into a Greek–speaking and Greek–culture island. In 1571 it was conquered by the Ottomans who finally ceded the island to the British in 1878. The latter ruled until 1960 where, after the EOKA uprising, Cyprus became an independent and sovereign republic under the London–Zurich agreements (Coopers and Lybrand, 1994). The freedom was short–lived since in 1974, using the coup d'etat against president Makarios as a pretext, Turkey invaded the island to capture approximately 40 per cent of the Cyprus territory. Since 1974 the island has been divided into two areas, the south, inhabited by Greek Cypriots, and the north, inhabited by Turkish Cypriots as well as by Turkish settlers transferred from Turkey.

Although the British introduced important socio–economic reforms during their 80 year rule, the Greek Cypriot agitation for *enosis* persisted throughout the period. During the first half of the twentieth century British policy tried to persuade the Cypriots to accept a form of limited self–government. To this effect a well structured programme of economic development was undertaken after World War II, which included a modernisation of the economic and legal frameworks and the introduction of the U.K. Companies Act as the Cypriot Company Law. However, the British efforts were in vain (Americana, 1979a). In 1950 an open plebiscite resulted in a 95 per cent vote in favour of *enosis* and after repeated British refusals to discuss the problem, the EOKA uprising broke out in 1955. The British withdrew in 1960 leaving behind a sound system of justice and public administration, a liberal business environment, a strict code of commercial and business behaviour and an Anglo–Saxon accounting system whose concepts, bases and policies still remain deeply rooted.

2.4.2.2 Multinational Corporations

In contrast to other small countries where MNCs determine local commercial and accounting practices (Brown, Kaur, Maugham and Rendall, 1995), their impact on Cypriot accounting practice has not been significant. Long term foreign direct investment in the form of factories, warehouses and machinery has been limited, mainly because Cyprus does not offer the necessary strategic advantages to provoke the MNC's attention. Labour is relatively overpriced compared to the Far East and Eastern European markets and, especially after the loss of the main mining areas in 1974, there is a lack of raw materials and other mineral reserves (Coopers and Lybrand, 1994). Short term foreign direct investment in the form of portfolio investment in shares, stocks and other financial securities has been virtually non–existent because of the small size of the economy, the absence of a regulated stock market (up to 1996) and the existence of strict exchange controls. For example, Hadjiroussos (1998) points out that the existence of exchange controls effectively

segregated the Cypriot economy from other developed and competitive Western economies.

2.4.2.3 International Trade

EU members constitute the most important trading partners of Cyprus; 60 per cent of exports and 50 per cent of imports are with EU countries (Planning Bureau, 1996a). Mainly because of the political ties developed by President Makarios in the 1960s and 1970s, the next trading partners in order of importance are the middle eastern Arab countries with about 15 per cent of domestic exports. In 1994, a five year strategic plan for the period 1994–98 was implemented, aiming to support the efforts for restructuring and modernising the economy, tackling the challenges created by the liberalisation of international trade within the General Agreement on Tariffs and Trade (GATT) framework and preparing Cyprus's forthcoming accession as a full EU member.

In spite of the dependence of the Cyprus economy on the import demand of its major economic partners, the impact of international trade on accounting practice has not been significant (Intercollege, 1997). The main factor of this has been the nature of the Cypriot business environment. The deeply rooted Anglo–Saxon business practices and accounting methods, which are widely used around the world, rendered Cypriot business documents and accounting reports familiar and acceptable to the main business contacts of local entrepreneurs. Consequently, local accounting and disclosure practices commanded no drastic changes.

2.4.2.4 Cyprus and the European Union

Formal relations between Cyprus and the EU date back to 1972 when an agreement of permanent association was signed. The relations have since then been continuously strengthening with a customs union agreement being signed in 1987 and a formal application for full membership made in 1990. Full accession negotiations started in early 1998 and membership of the EU is considered a primary political and economic goal (Hadjiroussos, 1998). The 1994–98 Strategic Development Plan has given a European orientation to the targeted socio–economic development, and the central axis of all development efforts is economic convergence and harmonisation of institutions, mechanisms and policies. Klerides (2001) predicts that during 2001 Cyprus will meet all the Maastricht criteria for European Monetary Union.

The harmonisation exercise has not yet resulted in the incorporation of the EU Fourth and Seventh Directives into the Cypriot law. In view, however, of the full accession negotiations this harmonisation is to be expected. Financial Mirror (2000) notes that (as at May 2000) the Cypriot legislators still need to pass more than 4,000 items of legislation before Cypriot laws catch up with all the relevant EU regulations. As in the case of U.K., harmonising local law in line with the EU Directives is expected to have an impact on Cypriot accounting practice, especially in the case of the Fourth Directive which is based substantially on German law rather than the Seventh Directive which mainly follows British practice. The result is expected to be a move from professionalism and flexibility to greater governmental influence over financial accounting and reporting and the introduction of detailed valuation, measurement and reporting rules. Nonetheless, the impact of the harmonisation exercise is not expected to be radical, as in the case of other European countries where it has effectively shaped accounting and reporting practice (e.g. Luxembourg). This is because the true and fair principle, which is the basis of the Fourth Directive, has long been the fundamental cornerstone of Cypriot accounting. In addition, many of the consolidation

provisions of the Seventh Directive are already practised by Cypriot companies due to the application of the relevant IASs.

2.4.2.5   International Accounting Standards

Since 1981 the ICPAC requires its members to ensure that accounts audited by them comply with the IASs and report instances of non–compliance in their audit reports. Even though a discussion of the suitability of these standards is outside the scope of this study, it must be admitted that their adoption was an important step. At the time the IASs were adopted, economic activity in Cyprus was booming, the unofficial capital market was taking off and there was an increasing need for high standard financial reports. The Companies Act was too old to cope with the increased complexities of the rapidly expanding corporate identity. It was felt that failure by the accountancy profession to provide regulation on its own would invite the intervention of the government (Zampelas, 2000), with the consequence that accounting standards would be set and enforced by civil servants instead of professional accountants. Faced with this possibility, that could have circumscribed the professional's traditional freedom of action, some form of self–regulation was needed. In view of its small size and weak financial strength, ICPAC selected the "off the shelf solution" by adopting the IASs (Intercollege, 1997).

Although the IASs have been adopted by both the ICPAC and the Cyprus Stock Exchange (since 1996), they do not have any legal backing. However, in spite of the fact that the IASs do not have the force of law, it is generally accepted that they need to be followed if the financial statements are to show a true and fair view as required by the Companies Law (Coopers and Lybrand, 1993). Cairns (1996) recognised the efforts made by Cypriot managers and auditors to achieve a high level of compliance with IASs and concurs with the view that financial statements of Cypriot companies, in general, do comply with IASs.

44

2.4.2.6   International Accounting Firms

The integrated tier of the Big 5 firms have expanded into Cyprus without any barriers to entry or practice, and have significantly influenced local accounting education and practice (Intercollege, 1997). Up to the 1980 the development of these firms in Cyprus was moderate. They were mainly engaged in traditional accounting services and statutory audits, with specialised services such as tax advice undertaken on a limited scale. The economic boom of the 1980s and the arrival of offshore companies enabled them to flourish. Multinational companies such as Coca Cola, Reuters and Barclays established an offshore presence in Cyprus looking for sophisticated accounting and business services. In addition to the boom in the offshore business, local companies expanded too, given the economic recovery in the 1980s and the establishment of the Over–The–Counter (OTC) capital market. The 1990s saw a consolidation of the roles of international firms as regional management consultants and business advisors (Zampelas, 2000).

Furthermore, during the 1980s, when there was virtually no university or college providing accounting education in Cyprus, these firms provided technical backup, internal training programs and in–house seminars to their Cypriot employees. They also encouraged young persons to study locally for British accounting professional qualifications such as the Association of Accounting Technicians (AAT) and the Association of Chartered Certified Accountants (ACCA). These firms were the driving force behind the decision by the Institute of Chartered Accountants in England and Wales (ICAEW) to select Cyprus as the first non–EU country in the world, into which to extend its training and education scheme. Overall, it can be said that the international accounting firms have played a key role in the history of accountancy education in Cyprus.

2.4.3 Regulatory Framework for Financial Accounting and Reporting

2.4.3.1 General

The regulatory framework for financial accounting and reporting consists of those rules and regulations that govern the way in which businesses must account and report for their activities. It consists of the legislative framework, which usually includes the company, accounting and tax laws, and the institutional framework, comprising the rules and requirements of the stock exchange as well as any related professional pronouncements.

The most common form of commercial enterprise in Cyprus is the company, which can be either a private or a public company (KPMG, 1995). A private limited company limits the number of its members to fifty, restricts the transferability of its shares, and prohibits an invitation to the public to subscribe for its securities. A public limited company ("εταιρεία")[12] has a minimum of seven members and can extend an invitation to the public to subscribe for its securities. The financial accounting and reporting obligations of a Cypriot public limited company depend on whether it is listed on the CSE or not. If a public company is listed, then its obligations are stipulated by the company and tax laws, the IASs and the CSE rules and regulations. If on the other hand, a public company is unlisted, it is then exempted from the CSE regulations. Because this study examines the disclosure practices of both listed and unlisted public companies, the three sources of regulations relating to these types of business organisations are reviewed.

---

[12] In ancient Greek the word "εταιρεία" means the friendly relationship between people.

46

2.4.3.2 Company Law

Activities of Cypriot public companies are regulated by the Companies Act of 1951 (the Act). Walton (1986) notes that Cyprus adopted the British 1948 Companies Act wholesale, with virtually the only amendment being to substitute Governor for Board of Trade. The Act, which has not been amended since its enactment in 1951, was the only source of accounting regulation until 1981 when the accounting profession in Cyprus decided to adopt the IASs.

The Act requires all public companies to prepare financial statements that should be audited by independent auditors. The financial statements should include a profit and loss account and a balance sheet. The Act does not prescribe a format for either the profit and loss account or the balance sheet, but Schedule Eight of the Act details the items that must be shown either on the face of the Profit and Loss Account and the Balance Sheet or by way of a note thereon. The Eighth Schedule also grants specific disclosure exemptions to financial institutions such as banks, discount houses and insurance companies. The overriding requirement of the Act is that the financial statements must give a true and fair view of the profit/loss and of the state of affairs of the company as at the end of the financial period.

2.4.3.3 Tax System

Tax law in general, and corporate taxation in particular, are mainly based on their British counterparts. Income tax is levied under the Income Tax Law 58 of 1961 as amended by subsequent laws. The most important of these is the Income Tax Law 40 of 1979, which changed the basis of assessment from the preceding to the current year basis. Tax is charged on income derived from, received in, or accruing in Cyprus

by any person in respect of profits from any trade, business, profession or employment as well as from dividends, interest, rents and royalties.

Generally the preparation of Cypriot published financial statements is not influenced by tax rules (Intercollege, 1997). The amounts to be included in a company's financial statements are determined in accordance with accounting principles and policies, and there is no need to follow tax regulations in order to obtain a tax advantage. For example, judgment determines residual values and useful lives of fixed assets in order to establish the most appropriate depreciation method. Revaluations of tangible and intangible fixed assets affect the tax computation only when realised, and provisions for contingencies, losses or decreases in the values of fixed assets are assessed and provided for on a case–by–case basis in accordance with the prudence concept. Furthermore, the practice of deferred tax is widespread as there is a recognition that the effect of timing differences between accounting and taxable profits is to shift tax liabilities in time without necessarily altering the total amount payable. Overall, the prevalent accounting practice recognises that financial statements should report useful information to the different stakeholder groups and not to the tax authorities which are provided with special–purpose financial statements.

2.4.3.4 Accountancy Profession

The main professional accountancy body of Cyprus is the Institute of Certified Public Accountants of Cyprus (ICPAC). Vafeas et al. (1998) report that members of ICPAC control over 90 per cent of audit fee income in Cyprus. ICPAC is a company limited by guarantee formed in 1961, to promote and safeguard the interests of the accountancy profession and establish a professional code of conduct and ethics. Although having no legal backing, it is de facto recognised as the representative body of the

accountancy profession by both the business community and the government.[13] ICPAC does not conduct its own examinations neither does it have any formal training requirements. In order to qualify for membership one must be a member of a U.K. body of accountants (such as the ACCA or the ICAEW), or of another body deemed to be equivalent. Almost in their entirety, ICPAC members are persons who are also members of the ACCA or the ICAEW. For a country of the size of Cyprus, the growth in the number of qualified accountants[14] joining ICPAC has been phenomenal. From 21 members in 1961, membership rose to around 1,200 in 2001 (Pelides, 2001).

Despite the existence of ICPAC, there is effectively no legal regulation of the Cypriot accountancy profession. The only legal provision relating to the regulation of the accounting profession is the basic qualification of who can be an auditor of a company. Section 155(i) of the Act provides that an auditor must be ". . . a member of a body of accountants established in the *United Kingdom* (or) having *similar* qualifications . . . or having obtained *adequate* knowledge and experience . . ." (emphasis added). The provision for a "member of a body of accountants established in the U.K." has proved to be problematic in practice. It qualifies a person who is a member of a U.K. body but does not have a practising certificate, to be an auditor of a public company. For example, ACCA graduates who have been admitted to membership having obtained their three years experience in the industry (in non–audit functions) have been issued with audit practising certificates by the Ministry of Finance because they satisfy the requirements of Section 155(i).[15] The adequate knowledge and experience provision has also been controversial because there is no official definition of the term. The Ministry of Finance attempted to give its own interpretation and prepared its own

---

[13] For example, in his address to the ICPAC members during the 1996 AGM, the Minister of Finance commented: ". . . the time has come for the law to back your informal, but de facto, recognition that you have justifiably earned . . .". (Christodoulou, 1996, p.25).

[14] The term "qualified accountant" is used to refer to ICPAC members.

[15] This researcher knows many ACCA graduates who had their training experience in industrial settings such as commercial banks and co–operative societies. Literally, these graduates have never seen an audit file before; nevertheless, they are eligible to be appointed as auditors of public companies.

regulations listing the qualifications needed by someone to be issued with a practising certificate. Certificates were refused to applicants who did not satisfy these conditions. This provoked a lot of protests and the issue was finally referred to the Supreme Court. The court dismissed the decision of the Minister of Finance who had no option but to grant authorisation almost without any conditions at all. Another attempt to clarify the issue of the practising certificate was made in 1992, when the Ministry of Finance prepared a relevant bill requesting a detailed proposal to regulate the profession, which was rejected by Parliament.

An important development in the early 1990s rendered the issue of regulating the accountancy profession a necessity. Holders of other accounting qualifications formed two new local institutes and have challenged the right of the ICPAC to represent the qualified accountants in Cyprus. The first of those local institutes was founded by Cypriots who qualified with the American Institute of Certified Public Accountants (AICPA) – the Pancyprian Institute of U.S. CPAs (PICPAs). This institute took the dispute even further: they threatened ICPAC members with legal action if they were to continue using the CPA title[16], arguing that this is the exclusive right of the members of the US institute AICPA (PICPA, 1997). The second is the Institute of Qualified Certified Accountants – Auditors of Cyprus (IQCAAC) representing mainly accounting graduates from Greek universities. This institute adopted a frontal attack on the whole system, arguing that a structure of qualifying examinations should be set up with the trainees being examined in the Greek language (IQCAAC, 1997). As a consequence of these contests ICPAC took the initiative to propose the drafting of a bill to legally regulate the accountancy profession. After the necessary consultation with all parties involved, a bill was drafted that seeks to fully harmonise the accounting system in Cyprus with the relevant EU Directives. The bill, which covers matters such as professional examinations, practicing requirements, ethical guidelines and quality

---

[16] The official title of ICPAC members is Certified Public Accountant (CPA) of Cyprus.

control, is expected to be passed by the Parliament during 2001 (Pelides, 2000).

2.4.3.5   Accountancy Education

A compulsory twelve year elementary and secondary education has led to illiteracy in Cyprus being almost non–existent. Although a state university was established in 1992, there were already thriving private sector colleges which maintain strong links with U.K. and U.S. educational establishments. The existence of these colleges, along with the huge numbers of young persons studying in Greece, the U.K. and the U.S., resulted in about 23 per cent of the gainfully employed population being college and university graduates (Planning Bureau, 1996a).

Accountancy education is introduced in the fourth year of secondary education. There is a compulsory course in accounting for all students following the commercial or economics fields of study. The influence of the Anglo–Saxon accounting tradition can be found as early as at this stage. An important (if not the main) objective of accounting students is success in the accounting papers of the General Certificate of Education examinations of London University and the London Chamber of Commerce and Industry (LCCI). Furthermore, given that the exam papers are set under the U.K. Statements of Standard Accounting Practice (SSAPs) and Financial Reporting Standards (FRSs), the majority of textbooks are in English and the language of instruction is predominantly the same language (Intercollege, 1998). At the tertiary education level, both academic and professional qualifications are available. Academic qualifications can be earned by studying either at the private sector colleges or at the University of Cyprus. The accounting degree of the University is heavily influenced by the ACCA examination system as it was structured in such a way so as to make its holders eligible for exemptions from eight out of the fourteen papers of the ACCA examinations. Professional qualifications can be earned by studying at private sector colleges, which offer courses leading to the examinations of the U.K.

accountancy bodies (ACCA, ICAEW and AAT). Although the professional accounting education market is dominated by the ACCA, its biggest boost was given in 1993 when the ICAEW extended its training and education scheme to Cyprus. The fact that Cyprus has been selected among other candidate countries such as Hong Kong, Malaysia and Singapore indicates the recognition of the high standard of the accounting education and profession in Cyprus (Zampelas, 2000).

2.4.3.6 Capital Market

A capital market, but in an embryonic form, has existed in Cyprus since the early 1960s. The securities of a limited number of public companies were traded within an unregulated environment. With the economic prosperity of the late 1970s and the growth of several public companies, there was an increased need for a regulated market. In 1979 the Cyprus Chamber of Commerce and Industry (CCCI) saw the need and, in spite of the absence of any legal background, drafted a set of regulations for holding stock exchange meetings under its auspices (CCCI, 1993). This resulted in the establishment of an Over-the-Counter (OTC) market. However, in view of the absence of a proper watchdog to oversee OTC trading, there was a belief that there existed market manipulation, spread of misinformation, insider dealing and other fraudulent behaviour (Antoniou, 1996). It was gradually recognised that an official market was needed.

The law providing for the establishment and operation of the official stock market (the CSE) was passed in 1995 and the market was opened in March 1996 with 37 listed companies. By requiring listed companies to prepare financial statements in accordance with the provisions of the Companies Act 1951 and the IASs, the CSE effectively backs both sets of regulations. Continuing obligations include the preparation and publication of a semi–annual and an annual report. The former must be submitted within four months of the reporting company's period end and need not

be audited. However, annual reports must be published within six months of the company's financial year end and be audited by a qualified auditor.

Though the CSE is small in size when compared to other European stock markets, its capitalisation in 1999 was approximately 200 per cent of GDP (Sharelink, 2000). The main characteristics of the CSE and their implication for corporate disclosure practices are:

(a) *Supply-related characteristics:*

In most Cypriot companies ownership is concentrated in the hands of a few individuals and their families (Vafeas et al., 1998). These groups of shareholders are usually reluctant to relinquish control of their businesses and prefer to rely on bank financing and retention of profits, rather than issue of new shares to the public. This limited dispersion of share ownership signifies that the main capital providers have greater access to internal corporate information, and may not have to rely, to a great extent, on public disclosure to monitor their investments. Hence, this structure of the supply side of the CSE implies that the pressure for public disclosure and transparency should be low.

(b) *Demand-related characteristics:*

Three discernible groups of investors can be identified (Intercollege, 1997). First, the institutional investor group, which mainly comprises investment and insurance companies. These organisations have organised investment and research departments and take investment decisions after careful assessment of micro-economic and macro-economic fundamentals. The second group is that of speculators, who are not interested in a stable dividend income or long term capital appreciation. Instead, they usually invest using borrowed money in the hope of fast

and speculative profit. Finally, the group of long term educated and well informed investors, who have clear long term investment strategies and usually invest based on fundamentals. This structure of the demand side of the CSE signifies that many investors possess the ability or means to appropriately evaluate risk and return of securities. Furthermore, it implies that the pressure for increased disclosure should be high, because the number of outside shareholders who can successfully press for more detailed information is high.

(c) *Market–related characteristics:*

The CSE has lower liquidity and is relatively thin when compared to other developed markets (Vafeas et al., 1998). In 1996 the number of companies listed on the CSE was only 41, rising to 54 at the end of 1999. During 1999 the CSE General Index rose by more than 687 per cent which has been the highest worldwide (Sharelink, 2000). Trading volumes are low and concentrated in the shares of only two banks.[17] Furthermore, the number of new rights and debenture issues are low (CLR, 1997). However, the total market capitalisation has increased from CYP£1,078.5m in 1996 to CYP£14,039.8m in 1999. Additionally, during 1999 the number of investors has increased tremendously and more than 25 per cent of the population have invested in the CSE compared to less than 10 per cent in 1996 (Sharelink, 2000). All of the above imply that the pressure for increased disclosure should be increasing.

2.4.3.7 Enforcement Mechanism

There are three accounting enforcement mechanisms in Cyprus: the Companies Act 1951, the accountancy profession and the CSE.

---

[17] For example, in 1996 the volumes traded on the floor of the stock exchange were CYP£231m and 47.4 per cent of the volumes traded related to the shares of Bank of Cyprus and Popular Bank. The corresponding figures in 1999 were CYP£3,858m and 30.86 per cent.

The Companies Act provides that directors must take all reasonable steps to secure compliance with the requirements relating to the accounting books and the preparation and disclosure of the published financial statements. Failure to do so renders them liable to prosecution which is punishable by a fine or imprisonment. Nevertheless, such prosecutions have been very rare. This is probably because corporate management and auditors usually take the necessary steps to ensure compliance (Cairns, 1996). It should be noted, however, that as the 1951 law is out of date, mere compliance with the legal stipulations does not necessarily imply compliance with the true and fair principle.

As noted earlier, the ICPAC requires its members to follow IASs and ISAs. In the case of non–compliance by a member, he/she can be referred to the Discipline Committee which investigates departures and can expel a member either for a specific period or permanently. Since 1981, however, the number of cases referred to the Discipline Committee has been insignificant. Currently the profession has no watchdog, such as the Review Panel in the U.K., to be entrusted with the responsibility to monitor and enforce accounting standards.

The Council of the CSE has the power to delist any company in case of non–compliance with any of the CSE's requirements. In 1996, the CSE commissioned Mr. David Cairns, the former Secretary–General of the IASC, to review the 1995 financial statements of companies admitted to the CSE with the view to ascertain compliance with IASs.[18] Although Cairns (1997) concluded that there is ". . . a high level of compliance with IASs . . ." (Cairns, 1997, p.9), he did report significant instances of non–compliance with the accounting and/or disclosure requirements of certain IASs. This was in spite of the fact that all reporting auditors confirmed conformity with IASs. Following Mr. Cairn's study, the Council of the CSE reached an agreement with the

[18] Cairns assessed the 1995 accounts of listed companies i.e. the accounts released under the old (OTC) regime.

ICPAC whereby the latter undertook to carry out a similar study on an annual basis. An ad–hoc committee of the ICPAC in collaboration with CSE and the Securities Exchange Commission (SEC), examines the accounts of all listed companies and reports back to the CSE the degree of compliance with IASs together with appropriate recommendations (Hadjiroussos, 1998). The results of this examination, however, are for the exclusive use of the CSE and are not published. In this sense, it can be argued that although a financial reporting watchdog does exist, its work is covered by secrecy and users of financial statements are not informed about non–compliance with accounting or disclosure regulations of the IASs.

2.5 THE GREEK ACCOUNTING ENVIRONMENT

2.5.1 Internal Environment

2.5.1.1 Political System

Greece lies in the south–eastern part of Europe. It covers an area of approximately 132,000km, and has an estimated population of 10 million. Greece is a presidential parliamentary democracy. The executive and legislative branches of the state are interlinked. The legislative authority rests with the 300 members of Parliament who are elected every four years. The majority party in Parliament forms the government and its leader becomes the Prime Minister. The President is elected by Parliament and, although being the Head of State, his role is mainly ceremonial (Coopers and Lybrand, 1995).

As in France, financial accounting and reporting in Greece is mainly controlled by the government. Throughout the years the government has seen itself as a regulator of accounting matters. Corporate legislation is mainly a political process, since most accounting rules and regulations promulgated through such legislation are determined largely in the political arena (Ballas, 1998). There are at least three factors that have contributed to this. The first is that during the first years of liberation from Ottoman rule (early 1830s) and after almost 400 years of hardship, there was an urgent need to lay new foundations for commercial and legal matters. At this time a political decision was taken to adopt the French legal, commercial and accounting systems. Since then, Greek commercial law and accounting have almost always followed developments in France (Ballas, 1994). Second, the government has traditionally seen accounting as a fiscal instrument whose primary role is to help in planning and administering the economy as well as introducing and collecting taxes (Ballas, 1994). Finally, there has

been a tradition of a strong influence of party politics in all aspects of commercial and business matters. This is evidenced by the extensive intervention of the government in all aspects of business activity following pressure from social actors to intervene whenever they disagree (Ballas, 1998). It is noticeable that most of what is considered elsewhere in the developed world as managerial prerogatives, in Greece are continuously debated in long parliamentary discussions which usually end up as legislation (Bourantas, Anagnostelis, Mantes and Kefalas, 1990).

2.5.1.2   Legal System

The Greek legal system is greatly influenced by Roman and Byzantine law. Custom and practice play a minor role and the courts are not bound by judicial precedent. The Commercial Code draws heavily from its French counterpart and prescribes detailed and all embracing rules to cover commercial transactions. Up to 1920 company law was not codified, but in view of the increase in size and complexity of business organisations, law 2190/20[19] introduced detailed regulations to cover corporate behaviour.   .

Greece can be classified as a *codified law country* where codification of accounting rules and procedures is the rule rather than the exception (Papas, 1993). The desire for uniformity and the legalised approach to accounting matters has resulted in the adoption of a national accounting plan and a uniform chart of accounts. Commercial and company law have been extended to include the accounting rules, concepts and procedures surrounding the Greek General Accounting Plan (GGAP), to such an extent that professional judgement is restricted.   As a result, the   accountancy regulation bodies have played a secondary role in the development of accounting rules and regulations; this role has been restricted to issuing circulars explaining some

---

[19] Laws and other legal decrees are referred to by their number (e.g. 2190) followed by the year they were originally passed (e.g. 20, which refers to 1920).

of the details of the GAAP and commenting on amendments of the company law which affect accounting practice (Ballas, 1994). An important impact on the Greek accounting system has been brought about by the incorporation of the relevant EU Directives into the law. Especially in the case of the Fourth Directive the effect has been significant and Greek companies are, since then, required to give increased disclosure about their financial results and position (Robinson and Venieris, 1996).

2.5.1.3 Economy

Although the economy is based on the free enterprise system, there has been a tradition by many businesses to seek continuous government support and protection, a tradition that has rendered most economic entities inefficient, uncompetitive and unable to face structural changes (Papas, 1993). Inflation rates of 25 per cent, interest rates of 35 per cent and public deficit above 14 per cent of GDP were common during the late 1970s and early 1990s, but starting in 1985 the government has introduced measures to stabilise and improve the economy. Although agriculture has been the main economic sector, its importance has diminished as it has been hampered by a large number of uneconomic small land holdings that render the introduction of modern agricultural techniques impossible (Coopers & Lybrand, 1995). The most dynamic sector is that of services with tourism and shipping representing the country's principal sources of foreign exchange earnings. In the 1990s, in an effort to conform with the European Monetary Union criteria, the government has introduced strict measures to control inflation, decrease the public deficit, decrease interest rates and make the Drachma more stable (via the 1994–1999 Revised Convergence Programme). These measures have been successful and by early 2000, public deficit has decreased to 1.6 per cent of GDP, inflation has stabilised around 2 per cent whilst the rate of GDP growth was 2.7 per cent (Ependytis, 2000). Kakoulidou (2000) notes that the spectacular development of the Greek economy during the late 1990s was the result of a difficult and painful effort of all the Greek people.

The relative underdevelopment of the economy and the severe micro–economic and macro–economic problems faced up to the mid–1980s, have influenced the development of Greek accounting. The heavy reliance on agriculture, which used cash–based accounting, and the lack of industrialisation implied that there was more emphasis on bookkeeping and less emphasis on accounting (Robinson and Venieris, 1996). Until the early 1980s, there was neither a standard format of financial statements nor uniform accounting terminologies or common valuation rules. Financial information disclosed was considered to be inadequate as there was no information on sales, cost of sales and expenses, while notes to the accounts were extremely rare (Papas, 1993). With Greece's entry into the EU and the link of the Greek economy with those of its European partners, there came a need for significant improvement in the financial reporting system. The first changes were introduced in 1981 with the introduction of the GGAP, and were followed by the incorporation of the EU Directives into Greek law in late 1980s. However, complex financial transactions and related accounting techniques such as leasing, financial derivatives, factoring and complex financial instruments are still very rare in Greece (Robinson and Venieris, 1996).

2.5.1.4 Socio–cultural Variables

Greece and Cyprus share many socio–cultural variables: the same ethnicity, language and religion. However, there is some evidence that, in contrast to the Cypriot society, Greek society ranks highly on Hofstede's cultural dimension of Uncertainty Avoidance. Hofstede (1983, p.342) reports that Greece has the highest Uncertainty Avoidance measure of any of the 53 countries and regions reported in his study. Americana (1979b) explains that in Greece there is a desire to maintain institutions which protect conformity to traditions and customs, which are believed to help the Greeks retain their prestigious heritage under adverse conditions. Another socio–cultural characteristic of

Greek society is that the attitude of people towards business is a mixture of respect, dissatisfaction and mistrust (Papas, 1993). This can mainly be attributed to the traditional party politics phenomenon. Both short and long term socio–economic objectives and policies, have frequently been changed in accordance with the priorities of the dominating political party and pressures from party supporters (Papas, 1993). Charalambis (1989) stresses that the persistence of patronage relations is widely acknowledged to be one of the major problems of the Greek political system. Mavrogordatos (1988) examined the relation between the state and associations representing agriculture, labour and employers since 1974. He demonstrated that all major political parties in Greece are in a position to influence and guide trade unions through established political patronage networks with union leaders. Additionally, Mouzelis (1986) described a particular version of corporatism pertinent to Greece. This is characterised by the state's tendency to inhibit the formation of autonomous interest groups and the de facto control exercised by the state over trade associations and unions.

Papas (1993) opines that the strong influence of party politics has had a strong bearing on the attitudes and behaviour of economic agents in Greece. This has resulted in the public's attitude towards accounting being rather unfavourable. As Papas (1993, p.77) notes ". . . people mistrust it (accounting) as a means of generating misleading information for tax evasion purposes and pricing policies, and not as a tool of efficient management . . .". The above socio–cultural variables have influenced Greece's accounting system which is characterised by the values of Statutory Control and Uniformity. In line with Gray's (1988) propositions, a strong Uncertainty Avoidance is consistent with Statutory Control (a preference for compliance with prescriptive legal requirements where the accountant's role has mainly been concerned with the implementation of legal rules) and Uniformity (the enforcement of uniform accounting practices via the imposition of the GGAP). Additionally, Robinson and Venieris (1996) propose that the higher degree of Uncertainty Avoidance in Greece is probably a

contributing factor to the existence of tax – based accounting standards enacted by statute (Uniformity and Statutory Control accounting values). Finally, Papas (1993) argues that the nature of socio–cultural forces in Greece explains, to a large extent, why a legalistic approach had to be taken, to secure acceptability of accounting standards and practices.

2.5.1.5   Goals of Society

Greek national economic goals have usually been more important than individual corporate goals, both for law makers and civil servants. Administrative procedures have usually been designed having in mind the optimal implementation of established formal and informal national policies. As a result corporate goals have normally followed, rather than led, national economic goals and almost all governments have tried to use accounting as a fiscal tool for the administrative control of the economy (Ballas, 1994).

In view of the above, accounting in Greece has followed a uniform accounting development pattern, and has usually been the instrument to measure performance, collect taxes and allocate funds. Consequently, the accounting system is characterised by standardisation, and accounting laws emphasise uniformity rather than flexibility in accounting methods and practice (Papas, 1993). This is evidenced by the enactment of common valuation and measurement rules, common definitions and terminologies, standardised accounts names, and the systematised presentation of financial statements and the notes thereon.

2.5.2   External Environment

2.5.2.1   History

Early samples of Greek civilisation date back to the 11th century BC, which are referred to as Homeric years after Homer and his works the *Iliad* and the *Odyssey*. This period was followed by the Geometric period (11th – 8th century BC) and the Archaic era (8th – 5th century BC) which was famous for the development of the Greek city–states of Athens and Sparta.   Greek civilisation reached its peak during the Classical years (5th and 4th century BC)[20] during which literature and arts flourished. This was followed by the Hellenistic[21] period (4th – 2nd century BC), during which Greek civilisation reached new peaks. Greece was later occupied by the Romans, and when the Roman empire finally split into two parts, the eastern part was gradually hellenised and developed into the Byzantine Empire until it fell to the Ottoman Turks in 1453. The latter ruled for almost 400 years until, after the 1821 revolution, the modern Greek state emerged.   Since then, political disunity and financial crises have been endemic, while peace and prosperity have seldom been enjoyed for long. The Balkan Wars and World War I, were followed by the Metaxas dictatorship and World War II, during which the Greeks suffered severe hardships under the Axis occupation. After the end of the World War II, there followed the long and bitter civil war from 1944 to 1949, and the military dictatorship of the Junta from 1967 to 1974 that led to the 1974 Turkish invasion of Cyprus.

The history of Greece can explain why the country has been left out of the mainstream of world achievements. The Ottoman rule for 400 years and the series of national and

---

[20] The 5th century BC is also known as the "Golden Century of Athens".

[21] "Hellas" and "Hellenes" are the names by which the Greeks use to refer to their country and themselves from the post–Homeric periods. These names originated from a small district and tribe in Phthiotis. The names Greece and Greeks, which are used by the rest of the world to refer to the people and the country, are derived from the Latin term "Graecus".

civil wars and dictatorships during the 20th century had a negative impact on the country's economic development and prevented the emergence of a sound, efficient and pragmatic accounting system. In the chaos that existed with the emergence of the modern Greek government in 1830, the government tried to intervene and dominate all aspects of life. This intervention was extended to accounting via the codification of legal stipulations relating to commerce (1835), company law (1920), and tax law (1955). As stated above, since 1835, when the French Commercial Code was adopted as the Greek Code, accounting in Greece followed developments in France. This tradition finally led in 1981 to the adoption of the French Plan Comptable as the GGAP. With the implementation of the EU Directives in the late 1980s this situation has gradually been changing to the extent that there is some movement towards a harmonisation of Greek accounting regulations with those of other European countries (Papas, 1993).

2.5.2.2   Multinational Corporations

Almost all Greek governments have, in the last four decades, enacted various laws designed to attract foreign capital investment. Through a series of incentives in the form of grants, interest subsidies and tax allowances, many MNCs were encouraged to set up operations in Greece or enter into joint ventures with local capitalists. The MNCs are now among the largest and more profitable business organisations and have significantly influenced, both directly and indirectly, local businesses. The direct effect stems from the presence of a large number of subsidiaries of multinational corporations which have contributed significantly to the modernisation and increased sophistication of management practices in the country (Coopers & Lybrand, 1995). The indirect effect resulted from the message that only the financially and technically strong local companies could withstand the increased competition from the MNCs. The possibility of fierce competition from MNCs had led to a series of strategic mergers, acquisitions, reorganisations and reconstructions in order to eliminate

64

inefficiencies, introduce new technology and be able to face the increased competitive pressures (KPMG, 1995).

The operations of the MNCs have also had a positive impact on the country's accountancy profession. In addition to the fact that their financial statements should be prepared in accordance with Greek accounting and reporting regulations (for submission to the local tax and other government authorities), there is also a need to "decodify" and draft them in accordance with the regulations of the country in which the MNC is domiciled (usually using IASs), for performance evaluation and incorporation into the group accounts. In this respect the MNCs have been the most important clients of the local affiliates of international accounting firms, seeking sophisticated accounting, auditing and other business services (especially during the pre-1990 period, where the local accounting body [Soma Orgoton Logiston – SOL (Society of Sworn Accountants)] enjoyed monopoly power over Greek statutory audits.

2.5.2.3   International Trade

A significant proportion of Greece's international trade is with the EU. Greece's exports to the EU account for approximately 60 per cent, while imports from the EU form approximately 45 per cent of the country's trading volume with the rest of the world (KPMG, 1997). Services are the most dynamic sector of the economy through which Greece can partially offset its large trade deficits. In the services sector, tourism and shipping are the country's principal sources of foreign currency earnings (Coopers & Lybrand, 1995).

Apart from the EU influence which is dealt with in Section 2.5.2.4 below, the influence of international trade on local accounting and reporting practices has not been significant. The main reason for this is that the extensive barriers to trade with non–EU countries that existed until the mid–1990s effectively limited the volume of international

trade (with non–EU countries). This implied that there was neither a strong pressure

nor a necessity for a compatibility of Greek financial statements with those of its non–

EU trading partners. Additionally, it is only very recently that a small number of Greek

companies have gone to external markets seeking funds from international sources of

finance. As a result, there was no pressure for local financial practices and published

financial statements to be in accordance with international standards so as to be

comprehensible by overseas capital providers.

2.5.2.4 Greece and the European Union

Greece became an associate member of the European Economic Community (EEC) in

1962 and was admitted as its tenth full member in 1981. It was one of the first

countries to ratify the Maastricht Treaty with an overwhelming majority in a vote at

parliament. Greece is one of the least developed EU members and is a large net

recipient of EU support funds (Coopers & Lybrand, 1995). As noted earlier, the 1994 –

1999 Revised Convergence Programme was introduced in 1994 aiming to enable the

Greek economy to satisfy the Maastricht criteria. By early 2000 Greece has managed

to fully satisfy the criteria for joining the eurozone and in May 2000 won the backing of

the European Union's Executive Body to join the eurozone on January 1, 2001

(Financial Weekly, 2000).

Perhaps the most important external environment factor on the development of

accounting and financial reporting in Greece has been the EU. The incorporation of

the EU Directives in Greek Law in the late 1980 have radically changed the mode of

accounting regulation in Greece (Robinson and Venieris, 1996). For example, prior to

the implementation of the Seventh Directive, group accounting was alien as there was

no legal on–going obligation to prepare consolidated accounts. The Seventh Directive

introduced detailed requirements concerning consolidated financial statements and

Greek law now requires the publication of group accounts for financial years

commencing after 30 June 1990. In addition, the Fourth Directive introduced several concepts, rules and principles and enabled company law to regain (to a certain extent) influence on accounting matters from the tax law. However, there are still important differences with other European accounting systems, mainly because of the government's decision to adopt as few options (allowed under the Directives) as possible (Papas, 1993). This implies that although Greece has made a bold move towards harmonisation, there is still a way to go before its accounting system fully converges with those of other European countries.

2.5.2.5   International Accounting Standards

IASs do not enjoy any statutory recognition in Greece. Lawrence (1996, p.94) notes that IASs have had little or no influence in Greek accounting and opines that "Greece is another country that is likely to present problems to the IASC in its harmonisation project". However, with the amendment of laws 2190/20 and 3190/55 to incorporate the relevant EU Directives, and the introduction of specific valuation and reporting rules under the GGAP, certain requirements of some IASs have been incorporated into Greek law.

Nevertheless, it is expected that IASs will become more influential on Greek accounting as the Greek politico–economic environment becomes more internationalised. This stems from the increasing number of Greek companies which seek finance in the overseas markets, such as the listing of National Bank in the New York Stock Exchange (NYSE) during 2000 and the acquisition of several Greek companies by foreigners. As a result overseas finance providers usually demand restatement of Greek financial statements in accordance with the IASs in order to invest in Greek companies. The growing importance of IASs is evidenced by the fact that in August 2000 the Securities and Exchange Commission proposed the mandatory adoption of IASs by all Greek listed companies (Fileleftheros, 2000).

2.5.2.6   International Accounting Firms

Most international accounting firms have set up operations in Greece since the early 1970s, but because of SOL's monopolistic power over statutory audits (up to the early 1990s) they have mainly been engaged in non–statutory audits and other related services. In 1979 the international accounting firms established their own association, the Association of Certified Accountants and Auditors of Greece (SELE), which was modelled on the U.K.'s chartered accountancy bodies.[22] MacErlean (1992) notes that members of SELE concentrated on tax and management consultancy and also did some non–mandatory audits on behalf of foreign enterprises which had invested in Greek subsidiaries. Nevertheless, SELE members were not authorised to conduct statutory audits. The Greek audit profession was liberalised in 1992, following a long and intense intra–professional struggle (Caramanis, 1997). While the international accounting firms were pressing for liberalisation, this was met with severe resistance from SOL. The main argument advanced against the reform was that statutory audits would become lenient (Caramanis, 1999). However, SOL was abolished in 1992 and a new institute was established, Soma Orgoton Elegton (SOE – translated as the Body of Sworn–in Auditors). In addition, auditor members of SELE (mainly partners in the international accounting firms) became members of SOE and, since then, SELE's activities have diminished. It can be claimed that the liberalisation of the profession and the spectacular development of the Greek economy during the late 1990s, have opened up new horizons for the international accounting firms, and enabled them to achieve remarkable growth rates (Global Training, 2000).

---

[22] It is widely accepted in Greece that the object of liberalising the profession was the raison d'être for the establishment of SELE (Caramanis, 1997).

68

2.5.3   Regulatory Framework for Financial Accounting and Reporting

2.5.3.1   General

As in the case of Cyprus, the nature of a Greek enterprise determines the type and extent of its financial accounting and reporting obligations. The most common form of commercial enterprise in Greece is the company, which can either be an Eteria Periorismenis Efthynis (EPE) or an Anonymos Eteria (AE) (KPMG, 1997). An EPE (limited liability company) is a legal entity distinct from its owners but decision making resembles that of a partnership. It is equivalent to the French Sarl and the German GmbH. An AE (public company) is a separate legal entity in which the liability of shareholders is limited to the amount they have contributed as capital. It is governed by Law 2190/20 and is equivalent to the French Societe Anonyme and the German AG. If an AE is listed on the ASE it is referred to as a listed AE. The financial accounting and reporting obligations of listed AEs, which are the business enterprises of interest in this thesis (from now on referred to as companies), are mainly regulated by commercial, company and tax laws, the Greek General Accounting Plan (GGAP), detailed regulations issued by the National Council of Accounting, and the regulations of the ASE. These pronouncements are reviewed in the remaining part of Section 2.5.3.

2.5.3.2   Commercial and Company Law

Ballas (1994) reports that during the 1821 revolution, the National Assemblies at Salona, Epidaurus, Argos and Trizina decided to adopt the French Commercial Code of 1807 as the basis for the organisation of Greek commercial life. In 1835 the French Code was adopted as the Greek Commercial Code and until today represents the

cornerstone of Greek commercial law in that it laid the foundations of modern accounting in Greece (Ballas, 1994).

In 1920 the Greek Company Law introduced additional principles to supplement those of the Code. Law 2190/20, which governs AEs, introduced detailed regulations governing corporate affairs and, together with the Commercial Code, provided the conceptual framework of accounting. The Law and its subsequent amendments were reshaped in 1986 and 1987 with the incorporation of the provisions of the EU Directives (Caseley, 1996). They provide for the main accounting principles and valuation methods to be followed, define the main elements of financial statements (such as assets, liabilities, revenue and expenses), call for the appointment of statutory auditors and specify the financial reporting and disclosure obligations of all companies.

The books and records to be kept by an AE are specified by tax rules. Bookkeeping requirements are specified by presidential decree 186/92 which is known as the Code of Books and Records. This specifies the accounting records and relevant documents that must be maintained, as well as the bookkeeping procedures and practices to be followed. Caseley (1996) emphasises that in certain instances there are conflicts between the requirements of the tax legislation and those of company law (for example there is a trend not to record provisions until they materialise since they are not deductible for tax purposes). Papas (1993) observes that one of the main reasons that contributed to the strong tax orientation of corporate accounting practices is the fact that in cases where the company law and tax regulations are in conflict, accountants tend to follow the latter. The annual financial statements must comprise the balance sheet, the income statement, the profit distribution table and the notes (*Prosartima*). According to law 2190/20 the publication of annual financial statements is effected as follows: (1) The financial statements, together with the directors' and the auditors' reports, should be filed with the Mitroo of AEs (Register) at the Ministry of Commerce; (2) All of the above with the exception of the notes and the directors' report must be

published in the Government Gazette and two national newspapers. The corporate disclosure practices of Greek listed companies are characterised by the fact that some companies do not prepare a corporate annual report (CAR) incorporating the financial statements, the chairman's and directors' reports, the auditors' report and sundry commentary (as is the practice in UK and Cyprus). When a letter was despatched to all Greek listed companies requesting a copy of their CARs, some of them simply despatched a single sheet of paper incorporating the balance sheet, the income statement, the profit distribution table and the auditors' report. Prior to the incorporation of the EU Directives into Greek Law, notes to the accounts were rarely given and Greek financial statements provided only fiscal and legal information (Papas, 1993).

Law 1819/88 created the National Council of Accounting [Ethniko Symvoulio Logistikis (ESYL)] which oversees the application of accounting legislation. ESYL acts as an adviser to the Ministers of National Economy, Trade, Education and the Treasury on accounting related matters. It also issues opinions, recommendations and explanations on accounting principles and details of the GGAP and comments on proposed amendments on company legislation which affect accounting practice. Ballas (1994) notes that, in practice, the ESYL has been responsible for issuing circulars explaining some of the details of the GGAP; the content of those circulars is characterised by an obsessive attention to seemingly trivial details.

2.5.3.3 The Greek General Accounting Plan (GGAP)

Filios (1995) argues that for the most part of the twentieth century the accounting systems of many Greek companies have been ineffective and inefficient, mainly because of out of date accounting legislation and the lack of a competent accounting

profession. Accounting terms and valuation rules were not uniform and management was generally unwilling to provide information to outsiders.

The first important step to change this state of affairs has been the implementation of the GGAP. Although a time consuming process commenced in 1954 the plan was not introduced until 1981. The EU Fourth and Seventh Directives were incorporated into the Plan in 1987 and were made compulsory for the majority of companies in 1991. As a natural consequence of the adoption of the French Commercial Code, the GGAP is based on the French Plan Comptable as far as structure, chart of accounts and conceptual framework are concerned. Overall, it emphasises uniformity with disclosure being much more extensive than that required by the Tax Code.[23] When the GGAP was introduced there were many instances where its requirements were in conflict with those of company and tax law. Furthermore, the Greek business community was not used to one set of rules for financial reporting and a different one for tax purposes, and there was confusion as to which set of rules prevailed (Ballas, 1994). Most of the conflicts were removed in 1994 when a new Code of Books and Records, outlining how companies should organise their bookkeeping records for tax purposes, was introduced. However, conflicts still exist, mainly in the case of depreciation and provision for bad debts, and in such cases there is a tendency to follow the tax rules for both tax and financial reporting purposes (Papas, 1993). The Plan gives guidelines for the organisation of accounting records, recording of transactions and preparation of financial statements. Its stated objective is to upgrade the quality of accounting information by offering a clear and concise view of the operating performance and financial results of the business. The GGAP is very rigid in that it specifies in detail the form and content of financial statements and even the sequence in which items are to be disclosed; both on the face of the financial statements and the

---

[23] A comparison of the main Cypriot and Greek accounting practices is attached as Appendix A of the study.

notes. Grigorakos (1996, p.561) argues that the notes to the accounts are very informative in that:

> *There are so many analyses, clarifications and information disclosed in the notes, that a third party can, by studying the balance sheet and the income statement in association with the notes, be informed almost about everything which is known to the preparers of the accounts. Everything is disclosed.*

2.5.3.4 Tax System

Modern income tax in Greece was introduced by Law 1640/19. This law, which was based on the corresponding French law, was repealed by Laws 3323/55 and 3843/58 relating to personal and corporate taxation respectively. These laws have been subject to many amendments until they were finally codified in 1989. As noted previously, a characteristic of the Greek tax system is the existence of the Code of Books and Records which governs the accounting aspects of income tax. It specifies the accounting records and documents that are to be maintained and the relevant accounting principles and rules for updating them (KPMG, 1997). In spite of attempts to simplify the Greek tax system, it still remains a confused and confusing system of complicated legislation and conflicting laws, ministerial decisions, court decisions and presidential decrees (Ballas, 1994). Due to these complications a breakdown of income tax by source of income is impossible. Tax orientation of accounting practice continues to some extent to be a tradition (Papas, 1993). Tax orientation is most evident in the cases of provisions, depreciation and deferred tax.

Companies do not normally account for provisions which, although necessary, are not deductible for tax purposes. For example, provisions for doubtful debts are allowed against tax at predetermined rates. This may lead to overprovisioning, if the provision is not, in fact, required but the company provides for it in order to get the tax benefit (Caseley, 1996). It can also result in underprovisioning, in cases where a higher

73

provision is required but the company is reluctant to do so because it is not allowable against tax. Depreciation is calculated using the straight line method based on estimated economic life. Depreciation rates can be subjectively determined by the company's management but maximum depreciation rates are prescribed by the tax law. In spite of their tax orientation, financial statements usually report a profit figure which is different from taxable profit. This can be due to tax deferred reserves provided for under various incentive laws, non–taxable income, non–allowable expenses and tax losses carried forward. Nevertheless deferred tax is not required by the local accounting regulations and is not normally reflected in the financial statements (Robinson and Venieris, 1996).

It should be noted that non–compliance with tax regulations may result in fines and criminal sanctions, whereas the penalty for failure to comply with accounting regulations is usually a harmless qualification in the audit report. This partly explains why in case of conflict between accounting and tax law regulations, accountants usually follow the latter (Papas, 1993).

2.5.3.5 Accountancy Profession

The first attempt to introduce external auditing in Greece was made in 1920, when Law 2190/20 required companies to have their accounts audited by at least two auditors. Nevertheless, the overall regulatory framework for auditing was ineffective and led to a number of corporate scandals in the 1920s (Theodoropoulos, 1923; cited in Caramanis, 1997). A new, unsuccessful, attempt was made in 1931 through law 5076/31, which established on paper an Institute of Certified Accountants. Filios (1995) notes that up to the mid–1950s there were effectively no regulations relating to the auditors' qualifications, something which led to the conduct of audits being taken up by almost anybody. In 1948 the Greek government invited two British chartered

accountants to advise on the establishment of a Greek accountancy body and their comments formed the basis of Law 3329/55 which introduced the SOL.

SOL enjoyed a legally sanctioned monopoly in the market for audit services. It effectively operated like a non–profit organisation. Audit fees were non–negotiable and the individual auditors' remuneration was always determined by the SOL Supervisory Council (Caramanis, 1998). In order to qualify for membership, one had to have a university degree, eleven years junior membership, and be successful in national examinations which were convened in accordance with the demand for practitioners. SOL was heavily criticised for its quasi–governmental and monopolistic status, while its international standing was very poor (International Accounting Bulletin, 1984; cited in Filios, 1995). This monopolistic state of affairs provoked protests from international accounting firms and professional accountants outside the SOL. Although in 1979 SELE was formed to counter SOL's monopoly, its members were not authorised to conduct statutory audits and had no legal recognition. Nevertheless, there was an increasing pressure on the government to liberalise the accountancy profession and introduce competition in the market for audit services.

The creation and development of the auditing profession in Greece is characterised by a distinctive profession–state relationship. Ballas (1998) explained how the auditing profession in Greece was used by the State to further its strategic interests during the late 1940s and early 1950s period. Ballas (1998) also presented evidence to show that auditing in Greece was perceived as an instrument for both economic and political control. In spite of severe resistance from the SOL, the political opposition and the majority of the press, the move for the liberalisation of the profession was finally made with the legislative reform in 1992. Caramanis (1998) points out that the audit reform took place against the backdrop of advancing neoliberal economic and political discourses which favoured a dramatic shift in state policy towards deregulation, privatisation and less state involvement in the management of the economy. In May

1993 SOE was established to replace SOL. It is made up of all the previous SOL members, SELE members and other practising accountants who satisfy the requisite criteria to become members of SOE.

Following the liberalisation the profession was split into three parts: (1) the SOL SA group comprising the majority of ex–SOL members who joined together and formed SOL SA – a private audit company; (2) the splinter ex–SOL group, comprising a number of ex–SOL members who did not join SOL SA but established a number of small audit practices; and (3), the SELE group comprising all the local branches of international accounting firms – mainly the Big 5. Caramanis (1997) empirically demonstrated that the two groups of the "indigenous" auditors combined (SOL SA and ex–SOL) managed to retain the vast majority of audit assignments. This was mainly because most typical Greek family companies tended to appoint auditors from these two groups. In contrast, companies which are subsidiaries of foreign enterprises or had received significant borrowing from abroad, tended to appoint members of the SELE group as their auditors (Caramanis, 1997). By the late 1998 SOE had around 600 members. Admission to membership is achieved through a combination of examinations and eight years practical experience. The quality control of auditors' work is one of SOE's priorities and is expected to issue relevant guidelines and control procedures in the foreseeable future. Ioannou (1995) expressed optimistic views about the future of the accountancy profession in Greece and proposed that things appear to be moving in the right direction. Additionally, Ioannou (1995) noted that the Greek accountancy profession is making a very positive move to bring itself into line with its European counterparts.

2.5.3.6 Accountancy Education

Accountancy education is offered by many vocational high schools, private colleges and universities. Until the liberalisation of the profession in 1993, accounting was

76

considered a second–rate course at Greek universities and there was no degree– level course in accounting at any of the state universities (Ballas, 1994). As far as professional education was concerned this was limited to the SOL trainees. The number of SOL auditors, assistants and juniors was fixed and it was compulsory for all assistants and cadets to be junior SOL members. Furthermore, a Greek accountant could only be a member of SOL, if he was in public practice, in contrast to other countries where a great proportion of qualified accountants work in industry or the government.

The liberalisation of the profession had a positive impact on accounting education. Degree level courses in accounting are now widely offered and research in accounting is being encouraged (Global Training, 2000). SOE established a student training programme leading to a qualification as a certified auditor. University graduates are employed as trainees for 2 years before they can take the first set of SOE examinations. Successful trainees at this examination proceed to the "cadet" level, which requires a minimum period of 3 years practical training before they can take the second level of examinations. Successful cadets are transferred to the "assistant" level and have to practice for another 3 years before they can take the final set of examinations to qualify as full SOE members. The long period of training and the requirement to be in public practice, limit the number of persons who attain full membership of SOE. In view of the shortage of qualified accountants, most international accounting firms operating in Greece have to recruit expatriates (mainly U.K. Chartered and Chartered Certified accountants). The recruitment of expatriates is very costly for the international accounting firms and this was the main reason for their decision to introduce the ACCA examination and training scheme in 1996[24] (Global Training, 2000).

---

[24] The scheme has been set up by Intercollege (Cyprus) and Coopers and Lybrand (Greece) in 1996. Other international firms have joined in 1997/8 (e.g. Ernst and Young, Deloitte & Touche).

2.5.3.7 Capital Market

The Athens Stock Exchange (ASE) was established in 1876 and is currently one of the emerging Southern European markets. The first stock exchange law was based on the French Commercial Code. The stock market consists of the main market and the parallel market. All listed companies must prepare and make available to their investors and the public at large the latest financial statements together with the directors' report. Listed companies must also prepare and publish, within 4 months of the relevant period, semi–annual financial statements. These should be published in at least one national newspaper. The main characteristics of the ASE and their implications for corporate disclosure practices are:

(a)   Supply–related characteristics:

Pre 1990 most companies were controlled by a small number of shareholders, who were usually reluctant to give up effective control. Extensive use of bank credit facilities was made in raising new capital, while equity funds were usually being obtained through the retention of earnings (Filios, 1995). Filios (1995) additionally notes that the unreliability of Greek financial statements explains why many Greek banks were lending on the adequacy of collateral rather than on the assessment of corporate performance and financial position as reflected in published financial statements. However, during the 1990s the Greek capital market has experienced remarkable growth rates, a significant number of companies have entered the ASE and there have been sizeable new share issues and a series of mergers and takeovers that increased the dispersion of share ownership in listed companies (Sigma, 2000). These supply–related characteristics imply that the pressure for more extensive disclosure should be higher than that existed in the pre 1990s.

78

(b) Demand–related characteristics:

Papas (1993) points out that most investors invest in the ASE in the hope to make quick profit through speculation, and only few study corporate fundamentals and make investment decisions based on available information. This can partly be explained by the tax orientation of Greek financial statements and the management's reluctance to provide information beyond that required by the tax authorities. This tax orientation of Greek financial statements can be demonstrated by the fact that whenever the government tried to sell state companies on the world markets, international firms were asked to prepare financial statements in accordance with IASs and audit them. Examples include those of the OTE (state telephone company) and the Olympic Airways (national carrier). This structure of the demand side of the ASE implies that the pressure for detailed and adequate disclosure should be low.

(c) Market–related characteristics:

As at the end of 1996 there were 218 companies listed on the ASE with a total market capitalisation of GRD 5,945. The corresponding figures as at the end of 1999 were 278 companies with a market capitalisation of GRD 67,093 billion. Sigma (2000) observes that the ASE has, during the 1990s, been experiencing remarkable growth, modernisation and internationalisation. The factors that contributed to the strengthening of the ASE's role as an avenue for investment and source of funds include a number of new enactments, an increase in trading volumes, the good performance of certain listed companies and the fact that capital gains from trading activity are completely tax exempt. These developments imply that the pressure for more detailed financial disclosure should be increasing.

2.5.3.8 Enforcement Mechanism

As in the case of Cyprus, there are three accounting enforcement mechanisms in Greece: Law 2190/20, the accountancy profession and the ASE.

Law 2190/20 provides that failure to prepare and publish a balance sheet in accordance with the provisions of the law renders a director of a company liable to prosecution which is punishable by fine or imprisonment. Furthermore, the annual financial statements together with the directors' and auditors' reports should be submitted to the Ministry of Finance within 20 days of their approval at the company's AGM. They are then reviewed by an officer of the department of Register of AEs and deposited in the company's file (Grigorakos, 1996). This review process, however, is not a detailed investigation designed to reveal any failures to comply with any accounting or disclosure requirements. It is rather an administrative formality, which seeks is to ensure that the proper documents and statements have been submitted on the due dates (Global Training, 2000).

The presidential decree 226/92, which represents the main piece of legislation regulating the organisation and operations of the SOE, provides that the SOE Council (Epoptiko Symvoulio) can refer any member or trainee to its Discipline Committee in case of improper behaviour or contravention of any law or regulation of the Institute. The Discipline Committee investigates referred cases in accordance with prescribed procedures and can impose sanctions. Nevertheless, the cases of disciplinary action for failure to comply with the accounting or reporting regulations have been rare (Eliokaftos, 1995). This is probably because of the lack of a systematic review of CAFSs of listed companies. SOE does not have a watchdog, such as the Review Panel in the U.K., entrusted with the responsibility to monitor and enforce corporate accounting and reporting requirements.

According to the regulations of the ASE, the Capital Market Committee can, at the approval of the ASE Council, delist a company in case of failure to comply with any of the CSE's regulation (ASE, 1997). The ASE does not itself assess compliance with regulations. It merely depends on the auditors' examination and investigates cases of non–compliance mentioned in the audit report.

In spite of the extremely detailed regulations relating to the reporting and publication of accounting information, the enforcement mechanism appears not to be stringent enough, as there is no effective and systematic assessment of compliance with accounting and disclosure regulations. This is probably the reason why ". . . since 1920 there has not been a penalty imposed on any accountant for failing to comply with the regulations" (Filios, 1995, p.94).

2.6   SUMMARY

This chapter provided background information about the Cypriot and Greek accounting environments. The information provided reveals that due to historical, political, economic and other reasons, Cyprus follows the Anglo–Saxon accounting model while Greece follows the Franco–German accounting traditions. The background information provided in this chapter, together with the development of the theoretical framework for corporate financial disclosure and the review of the relevant literature (undertaken in the next two chapters), will be used to develop the research hypotheses in Chapter 5. Additionally, the background information presented in this chapter will be used in discussing the results of the statistical analyses in Chapter 9.

PART II

LITERATURE REVIEW

CHAPTER 3

THE THEORETICAL FRAMEWORK FOR CORPORATE FINANCIAL DISCLOSURE

3.1 INTRODUCTION

The selection of the possible explanatory variables for Cypriot and Greek corporate disclosure is mainly theory driven. Thus, in order to encapsulate, develop and test the related hypotheses, it is firstly necessary to provide a general frame of reference by which corporate disclosure can be predicted and explained. This is the purpose of Chapter 3: to set the theoretical framework for corporate financial disclosure and to provide the basis on which research hypotheses can be developed and tested. The intention is not to develop a detailed theory of disclosure, since the literature assessing the validity of the theories underpinning corporate disclosure is voluminous and complex (Owusu–Ansah, 1998). The attempt is, rather, to synthesise a network of associations among the variables that are deemed to be integral to the dynamics of a company's disclosure decision.

Marston and Shrives (1995) point out that there is no general theory of disclosure and that different researchers use different theoretical approaches, probably because different disclosure situations are being investigated. This chapter focuses on agency theory, signalling theory, political cost theory and other economic cost–benefit analysis approaches. The reason for focusing on these theories is twofold. First, these theories are amongst those that predominate the disclosure literature (Marston and Shrives, 1995). Second, based on the researcher's experience, these theories are likely to be among the most influential on Cypriot and Greek corporate disclosure practices. A deliberate effort is made to keep the synthesis simple without obscuring the underlying theoretical rationale of each theory of corporate financial disclosure.

84

3.2 THE MARKET FOR ACCOUNTING INFORMATION

The ASB states that the objective of financial statements is ". . . to provide information about the financial position, performance and financial adaptability of an enterprise that is useful to a wide range of users for assessing the stewardship of management and for making economic decisions" (ASB, 1996, p.845–6). In spite of the fact that the assessment of stewardship has traditionally been recognised as the primary objective of financial statements (e.g. ASB, 1996), it is gradually being dominated by the decision making objective. One can argue, however, that the former is effectively a subset of the latter, since one of the decisions to be made by the shareholders is the assessment of stewardship and their reward or replacement. Thus, the IASC (1996, p.44) states that the objective of financial statements is to provide information ". . . that is useful to a wide range of users in making economic decisions".

Many researchers have suggested that accounting be viewed as a commodity that results from an economic activity (e.g. Belkaoui, 1994). There is a market for accounting information, where demand is derived from the information needs of the various interested stakeholders groups, and supply comes from the managers of those entities who are capable of producing the desired information. Although it is appreciated that a company's disclosure decision may be affected by different economic, political, legal, psychological, sociological and other factors, the approach adopted in this investigation follows that taken in most other financial disclosure studies; that is, by focusing primarily on the economic incentives behind the disclosure of corporate information. The development of the theoretical framework for corporate financial disclosure is undertaken by viewing the disclosure of accounting information in CAFSs as an economic good and examining the factors that influence its demand and supply.

3.3   THE DEMAND FOR ACCOUNTING INFORMATION

There seems to be a consensus that apart from investors there are, at least, another six corporate stakeholder groups that are entitled to information because the company's activities have an impact on their interests: employees, lenders, creditors, customers, government and the public.[25] Naser (1993) states that the identification of the accounting information required by each user group can be achieved by either asking them what they want, or identifying the types of decisions they might make and determining the information needed. In view, however, of the fact that the former approach is difficult to achieve, the latter approach is usually followed.

ASB (1996) states that investors need information both for investment and stewardship purposes. Investment decisions involve an assessment of the risk inherent in an investment and a determination of the adequacy of the return provided, while stewardship decisions concentrate on monitoring the management's performance. Employees are mainly interested about an entity's stability and profitability in order to assess the security of their jobs and determine their bargaining procedures. Lenders are interested in liquidity and stability in order to judge principal and interest repayments. Suppliers and other trade creditors are normally interested in an enterprise over a shorter term than lenders, in order to decide whether to sell or not. Customers are mainly concerned in an entity's market power in order to know whether a monopoly situation (and the possibility of being exploited) exists, as well as about its survival in order to assess continuity of supply. The government and its agencies are primary interested in an entity's profitability for tax assessment purposes; they also require general information for regulation, planning and statistics purposes. Finally, the general public is usually sensitive about an entity's social activities such as employment opportunities offered and the impact of its activities on the environment.

---

[25] All of these groups are identified by both the ASB and the IASC as potential users of financial statements.

86

The discussion above reveals that although many user needs are common, each group focuses on a particular aspect of financial performance or position. The demand for accounting information comes from many potentially conflicting sources where each party is primarily interested in information that will help its own decision making. Hence, a question arises as to whether a special purpose report (directed to satisfy as much as possible the specific needs of each user group), or a multipurpose comprehensive report (directed to satisfy the needs of all user groups), should be prepared. Although empirical studies have discovered a need for a high level of education in order to read and comprehend a company's annual report (Soper and Dolphin, 1964), this is the only general–purpose financial reporting document which is widely available to all user groups. The main part of a company's annual report – the set of CAFSs – is, as noted earlier, the focus of interest in this study.

3.4 THE SUPPLY OF ACCOUNTING INFORMATION

3.4.1 Different Disclosure Epochs

It is proposed that the factors affecting the supply of accounting information (at least in the developed Western capital markets such as the US and the U.K.) can be examined in the context of three different epochs. The first is the *nineteenth century epoch*, which was marked by the owner–manager principle and the absence of any disclosure (or measurement) regulations. Fitzpatrick (1939, cited in Naser, 1993) notes that accounting behaviour during this period was a response to the objectives of individual owners–managers, leading to inconsistency and diversity in the disclosed information. The second is the *early twentieth century epoch*, which was characterised by the divorce of ownership from control and a corresponding need for monitoring management's behaviour and performance. This period was marked by the existence of minimum disclosure regulation based on the proposition that there were enough incentives to disclose voluntarily. The third is the *mid–late twentieth century epoch*, which is characterised by a wide dispersion of share ownership, the development of sophisticated stock markets and the increasing demand for corporate information by a wide range of users whose interests are affected by the company's activities. These phenomena led to the enactment of specific disclosure regulations based on the belief that in the absence of disclosure minima, a less than optimum amount of information will be disclosed to satisfy those needs. The existence of such disclosure minima raises two important questions. First, what are the factors that influence the management's decision to comply with, or even exceed, the disclosure regulations (the supply of corporate information), and second, whether information disclosure should be regulated or not. The former question is discussed in the remainder of this section, leaving Section 3.5 to tackle the regulation issue.

3.4.2   The Supply of Corporate Information

3.4.2.1   General

As noted in the previous section, the supply of corporate information is up to the company's management. For example, the disclosure of voluntary information will be made provided the management believes that the marginal cost for its disclosure does not exceed the marginal benefit. The same economic rationale (disclosure up to the point where marginal cost equals the marginal benefit) can apply to the extent of detail by which companies will disclose mandatory information. This is because even for mandatory information companies have substantial discretion in the informativeness of the disclosure and the amount of detail provided (Barrett, 1976; Wallace and Naser, 1995; Lang and Lundholm, 1996).

The discussion above implies that in order to assess the management's disclosure decision, it is necessary to analyse briefly the different costs of, and benefits from, corporate financial disclosure and to assess which of them are likely to have a significant influence on the disclosure decision. However, before this analysis is undertaken, it should be emphasised that although several costs and benefits have frequently been suggested, most of them cannot be easily measured in monetary terms and, consequently, their empirical testing is difficult. That is why the approach taken in the discussion that follows is to identify the nature of the most frequently cited costs and benefits and explore their relationships, rather than attempt to quantify them in monetary terms. The identification of the relevant costs and benefits is made by reference to specific theories of corporate disclosure. The different costs and benefits have been grouped into internal (those affecting corporate insiders such as the owners, employees and the management), and external (those affecting all corporate outsiders such as lenders, creditors and customers).

3.4.2.2 Internal Benefits

(a) *Reduction in the company's cost of capital:*

The *capital need theory* suggests that disclosure reduces investor uncertainty and risk, and hence required rates of return. Spero (1979) argues that disclosure improves the estimates of an asset's (individual company's share) mean return and the covariance of the return with the market return, and lowers the systematic risk of the asset. This, in turn, results in a lower cost of capital which is beneficial to both individual investors and the company itself. It is beneficial to investors because they understand the economic risk of the investment and demand a return consistent with that risk. It is also beneficial for the company, because a lower information risk premium leads to a lower cost of capital for the company; this increases shareholders' wealth and makes marginal projects worthwhile. Spero (1979) additionally notes that the disclosure of financial information is analogous to advertising which aims to increase the demand for a company's securities and reduce the company's cost of capital.

(b) *Reduction in agency costs:*

The divorce of ownership from control, noted in Section 3.4.1 earlier, produced the *agency theory* to explain relationships within corporations. Jensen and Meckling (1976) proposed that companies be viewed as a nexus of contracts between managers and finance providers (shareholders and creditors) with managers as agents and finance providers as principals. The theory assumes that there is a conflict of interest between the agents and the principals because decisions made by the former to maximise their utility may not maximise the latter's wealth. This is referred to as the agency problem that leads to agency costs, which are the costs of measuring and monitoring the agent's behaviour, establishing compensation policies, etc. (Watts, 1977). They comprise bonding expenditures by the agent (such as the cost of

90

preparing financial reports), monitoring expenditures by the principals (such as the cost of employing auditors), and a residual loss represented by the reduction in firm value because of the divergence of interest between the contracting parties. Monitoring devices used by management include auditing, other formal control systems and the establishment of budget restrictions, in order to assure shareholders that they are not exploiting their fiduciary position. In this respect, the disclosure of corporate information can be used to monitor and enforce these contracts and reduce agency costs (Watts, 1977).

(c)   Reduction in political costs:

Watts and Zimmerman (1978) propose that the political sector has the power to effect wealth transfers between various groups and that the corporate sector is especially vulnerable to such redistributions. Politically visible firms, such as large and very profitable companies, may draw the public's attention and certain groups of voters may lobby for political actions such as nationalisation, expropriation or regulation. This can lead to the potential for political costs, such as legal costs incurred in opposing political actions and costs of increased demands imposed by labour unions. The *political cost theory* suggests the use of accounting information in an effort to avoid these risks and counter potential government intrusions. In this context, Zimmerman (1983), formulated the political cost hypothesis, used effective corporate tax rates as a proxy for a company's political costs, and contended that large U.S. companies are less likely to circumvent their tax responsibilities, and so pay more taxes. He called this the political cost of being a large company and suggested that this cost is reflected in a company's effective tax rate.

Zimmerman (1983), however, clarified that a company's effective tax rate is only a partial measure of a company's political costs. Within this context, some disclosure researchers argue that another measure for a company's political costs is increased

corporate disclosure (Craswell and Taylor, 1992). They propose that politically sensitive companies can disclose more extensive information in order to reduce the likelihood of political action either of the government or of a particular pressure group (e.g. Inchausti, 1997).

(d) Other benefits:

Other benefits from financial disclosure suggested in the literature include its use to enhance corporate reputation and public image (Firth, 1979); allay the fears of investors and lenders about the company's ability to meet its interest and loan repayment obligations as they fall due (Belkaoui and Kahl, 1978); and provide public relations benefits, such as giving the impression of openness and forthrightness to the investment community and decreasing the probability of meritless suits and litigation costs (Elliott and Jacobson, 1994). There is also evidence that stability in share prices is considered to be a valuable benefit from increased disclosure (Abu–Nassar and Rutherford, 1995).

3.4.2.3 Internal Costs

(a) Direct costs:

The most straightforward and easily quantifiable costs are the direct costs incurred in gathering, developing, processing, auditing, packaging and disseminating accounting information. It should, however, be emphasised that certain costs should not be included in those mentioned above in the sense that they are committed costs (i.e. those relating to the cost of developing and presenting information for management purposes). Although in developed countries the indirect costs of disclosure (discussed next) can assume greater significance that direct costs (Gray and Roberts, 1989),

there is evidence that the latter can be considered to be more important in less developed countries (Abu–Nassar and Rutherford, 1995).

(b)   Indirect costs:

Apart from the direct costs discussed above, there are also indirect costs associated with increased disclosure; the most frequently cited of which are derived from the *proprietary cost* and the *political cost* theories. First, Verrecchia (1983) argues that the costs of disclosure include not only the direct costs mentioned above, but also those relating to the disclosure of proprietary information. The disclosure of such information can be damaging and can lead to proprietary costs, if external parties, such as competitors or employees, use it in a way that is harmful to the company. Second, some researchers claim that an important indirect cost associated with increased disclosure is that of greater public attention (Wallace and Naser, 1995). This can lead to a scrutiny of financial results and position and an exposition to political attacks in the form of pressure for greater regulation, such as price controls and higher corporate taxes.

3.4.2.4   External Benefits

(a)   *Increase in business investment*:

The first external benefit associated with increased corporate disclosure is in line with the internal benefit stemming from the *capital need theory*. If disclosure reduces a company's cost of capital, then it can also enhance the public interest if a lower cost of capital results in an increase in the value of corporate investment. This has a multiplier effect in the economy, contributes to economic growth, creates additional employment opportunities and results in an improved standard of living (Singhvi and Desai, 1971).

In this respect, increased disclosure can have a beneficial impact on the economy through its influence on business investment.

(b)   *Efficiency in capital markets*:

Improved financial disclosure can also result in more efficient capital markets because it facilitates the optimal allocation of resources among firms (Beaver, 1981). Alexander and Archer (1995) argue that the crucial role of financial reporting lies in the reduction of information asymmetries in capital markets and that the better the information provided in published financial reports, the more effective it can be in removing these asymmetries and promoting market efficiency. Furthermore, Elliot and Jacobson (1994) propose that rich disclosure contributes to the effective allocation of capital by enabling capital providers to identify the most productive enterprises. Thus, disclosure ensures that capable companies have adequate supplies of capital.

(c)   *Enhanced liquidity of capital markets*:

Elliott and Jacobson (1994) also suggest that increased disclosure contributes to the liquidity of capital markets (which varies according to the bid–ask spread). The two principal determinants of the bid–ask spread are the degree of information asymmetry and the degree of uncertainty between the buyer and the seller. They argue that broad public disclosure can result in lower information asymmetry and less uncertainty between the buyer and the seller, thereby increasing capital market liquidity and assisting in the effective allocation of capital.

3.4.2.5   External Costs

External costs suffered because of financial disclosure are difficult to find. One example is the national cost when sensitive financial information about local

businesses becomes known to foreign competitors. In this way, information about technological and managerial innovations, planned product development and market targeting can aid foreign competitors. Although such disadvantages could be cured by several forms of trade restriction in the local market, the latter are not usually an option in international markets.

3.4.3   Benefits, Costs and the Regulation Debate

Although the discussion above reveals that there are several costs and benefits associated with corporate disclosure, the problem is that it is difficult for some of them to be precisely quantified in monetary terms (e.g. proprietary costs). Elliott and Jacobson (1994) opine that a company's disclosure decision is a complex issue and that there are no agreed–upon measures of the monetary value of the costs and benefits from disclosure. This leads to one of the most controversial issues among accounting researchers: whether corporate disclosure should be regulated or not. Some writers argue that there is a clear commercial reason for disclosing voluntarily because of the benefits from increased disclosure and the substantial costs of secrecy. They argue that free market forces will provide an ideal mechanism where an optimal amount of information will be provided at an optimal price (*Free Market Theory*). Other researchers, however, propose that the costs of increased disclosure outweight any associated benefits, and that companies are unlikely to voluntarily release extensive information. As a result, a free market cannot guarantee the provision of an optimum amount of information at an optimal price and some form of regulation is needed; whether by public sector institutions, private sector bodies or a combination of both *(Regulatory Theory)*. The next section briefly presents the main arguments of each theory.

3.5 THE MARKET FOR ACCOUNTING INFORMATION: REGULATORY VERSUS FREE MARKET THEORIES

3.5.1 Regulatory Theory

3.5.1.1 General

There are two major theories of regulation: the *public interest* and the *interest–group* *(or capture) theories.* The public interest theory postulates that regulation is supplied in response to the demand of the public for the correction of the inefficient (or inequitable) free market system, and it is instituted primarily for the protection and benefit of the general public (Belkaoui, 1994). For example, if accounting information is viewed as a public good, it is likely that it will be under–produced in a free market system. Therefore, some form of regulation is needed to correct this market failure for the benefit of the general public and the economy in general. The interest group theory, however, challenges the above proposition and maintains that regulation is supplied in response to the demand of special–interest groups (such as the regulator or the regulated industry), in order to maximise their own welfare (Belkaoui, 1994). For example, the regulated parties may try to intervene in, or even regulate, the activities of the regulatory body to ensure that their own interest is satisfied.

The remainder of this section concentrates on the public interest theory of regulation, which has been the most frequently cited theory in the literature. The essence of this theory is that if left to the free market system a sub–optimal level of information will be disclosed. Hence, regulation is needed in order to correct the imperfections of the free market system and improve social welfare. Several arguments have been advanced in the literature to support this theory; the most important have been grouped into two categories and are briefly discussed below.

3.5.1.2   Explicit Market Failures

The fundamental economic rationale behind the public interest theory of regulation is that there are explicit market failures in the free market system. The term market failures is usually used to refer to the case where the market performance is judged to be faulty, in the sense that the best attainable outcome has not been achieved, rather than the fact that nothing good has happened (Lipsey, 1983). Belkaoui (1994) further clarifies that explicit market failure is assumed to happen when either the quantity or the quality of a good produced in an unregulated market differs from the social costs of and benefits from that good, and the market solution results in a non–Pareto resource allocation. In the context of corporate disclosure the explicit market failures stem from the possibilities that: (1) accounting information exhibits public good characteristics; (2) accounting information gives rise to externalities; and (3), there is a presumed asymmetry in the distribution of financial information among capital market agents.

(a)   Public good characteristics:

It is usually proposed that corporate information possesses the characteristics of a public good (Gonedes and Dopuch, 1974). A public good is one which provides benefits to a large group of people, but for which the free market cannot compel a payment because there is no way to prevent a person from getting the benefit of the good if he or she refuses to pay for it.

Some theorists argue that information disclosed in CAFSs displays the two principal characteristics of public goods: indivisibility, in that its use or consumption by one user does not diminish it for others; and non–excludability, because users who have not paid can get a free ride on others' payments and obtain benefits from its use (e.g. Coffee, 1984). Such characteristics can bring a market failure because individuals tend to hide their actual preferences and try to become free riders at the expense of

97

others; as a result, demand is likely to be understated. In addition, the producers of information cannot obtain all of its value and without this incentive information will be underproduced. The above signifies that the price system may not function properly leading to the classic public goods problem: an underprovision of information needed for informed investment decisions and a sub–optimal allocation of resources. Thus, non–market allocation methods are needed in order to maintain the proper supply of information (Taylor and Turley, 1986).

The public good argument has been challenged in the literature. For example, Watts and Zimmerman (1986) argue that accounting information has features of a private as well as of a public good, because its use by one investor reduces the chances of others to derive the same benefit from its further use. This is because market prices would have already been adjusted by the first use of the disclosed information and its later usage is unlikely to yield the same benefits to the investors concerned.

(b)   *The externality problem*:

Watts and Zimmerman (1986) explain that an externality exists when the quantity or quality of a good produced in a free market economy differs from the supposed socially optimum level. The socially optimum level of production is attained when the price of a good equals the marginal social costs of its production (the value of the best alternative use of the resources consumed for the society as a whole). At the individual producer's level, however, the private optimum level of production is when the price of the good equals the marginal private costs of its production (the value of the best alternative use of the resources consumed for the individual producer). An externality problem is created when the marginal social costs of production do not equal the marginal private costs of production and the individual producer (who is to decide the actual quantity and quality of the good to be produced) produces the good up to the quantity or quality that he or she maximises his/her utility. In such a case, an

externality is said to exist because it is privately, but not socially, optimum (Foster, 1980).

Within this context, it is usually argued that the disclosure of accounting information generates an externality problem because while the disclosure will benefit both owners (shareholders) and non–owners (competitors, lenders etc.), the costs of the disclosure will ultimately be paid for only by the former (Beaver, 1989). In such a case, there will be a divergence of the private and the societal costs of producing that information. This creates an important externality problem: in the absence of regulation the disclosing company will tend to engage in too little information disclosure because it will not be compensated (through the free market system) for all the private costs incurred. Hence, regulation is needed in order to ensure that there is an adequate supply of information which is socially optimum and facilitates all well–informed investment decisions to be taken.

Nonetheless, the externality argument has also been challenged in the literature. For example Leftwich (1980, p.208) argues that:

> *The output identified by those theories as optimal is optimal in name only – it is defined independently of any institutional arrangements that can produce the output. None of these theories identifies a level of output which is optimal given the existing technology of markets, regulation, or any other regimes. Thus, unless market failure theories incorporate attainable institutional arrangements, they can yield no policy implications. It is illogical to condemn the actual output of an existing market (or government agency) merely because the quantity or quality of that output differs from an unattainable norm that is falsely described as optimal .*

(c) *Information asymmetry:*

A third reason for a failure in the free market for accounting information is the information asymmetry that may exist between suppliers and users of that information. Corporate managers can withhold valuable (or release fraudulent) information giving rise to the moral hazard and adverse selection problems that can increase uncertainty in, and lead to a deterioration (or even breakdown) of, the financial information markets (Coffee, 1984). Moral hazard arises whenever someone's superior knowledge leads him or her to behave differently from the way he or she would behave if that knowledge was perfect (Lipsey, 1983).

In the disclosure literature moral hazard is used to refer to the pursuit by management of activities which are not in the best interest of the shareholders. This is caused by their access to superior information (e.g. trading on non–public corporate information). Adverse selection, on the other hand, refers to the case where the asymmetry of information between buyers and seller leads to the prices of certain goods being sub–optimal. In the case of financial information markets, the absence of publicly known information may imply that some users are more informed than others. This can lead to investments with different characteristics selling for the same price, or investments with the same characteristics selling for different prices.

Supporters of this view usually refer to Akerlof's (1970) classic paper on "lemons"[26], to suggest that the uncertainty caused by the moral hazard and adverse selection problems, can lead to a deterioration of the financial information markets. For example, there is a possibility that managers, having monopoly control of corporate information, may use this information to manipulate stock prices to their own interest

---

[26] This is American jargon for inferior products whose actual quality characteristics are less than the perceived quality characteristics at the time of purchase. Akerlof (1970) uses the example of "lemons" to explain how they can bring about a reduction not only in the average quality of goods but also in the size of the market. In these markets governmental intervention can sometimes increase the welfare of all parties.

(Naser, 1993). Additionally, suspicious investors will only be prepared to buy corporate securities at prices low enough to offset the increased probability that they are "lemons". In extreme cases investors, fearing that they are exploited by management or better informed traders, may withdraw their capital to the detriment of the markets and the economy. Hence, there is a need for disclosure regulation because investors and the stock market would not otherwise be able to distinguish between efficient and less efficient firms (Taylor and Turley, 1986).

The information asymmetry proposition has not been left unchallenged. For example Cooper and Keim (1983) propose that even if adverse selection problems exist, market mechanisms can emerge which can serve satisfactorily to cope with them and intervention in the form of disclosure laws is not a necessity. Examples include the licensing of auditors and the establishment of accounting standards that limit management's ability to convey ambiguous signals. Similarly, Easterbrook and Fischel (1984) argue that there is no scientifically acceptable evidence that any benefits from increased public confidence in information markets exceed the administrative costs of mandatory disclosure.

3.5.1.3 Implicit Market Failures

Advocates of the public interest theory of regulation maintain that the free market system has implicit failures as well. Some of the most important implicit market failures focus on one of the following claimed defects of the free market for corporate information:

(a)   Exploitation of unsophisticated investors:

The first defect of the free market stems from the fact that it cannot protect investors who are not well versed in some of the complex accounting terms or techniques. This is because those unsophistical investors may be fooled by the use of alternative accounting techniques by comparable firms, and not be able to adjust their decision making processes to take the diversity of accounting procedures into account. Hence, increased disclosure is needed to ensure that unsophisticated investors are not fooled (Belkaoui, 1994). Coffee (1984) also notes that financial disclosure rules can also be beneficial because they can reduce fraudulent practices in connection with the issuance of new securities.

(b)   Functional fixation:

Additionally, it can be claimed that under certain conditions investors may be unable to change their decision–making processes in response to a change in the underlying accounting process that provided them with the data, due to functional fixation. This is the psychological phenomenon where an individual attaches a meaning to a title or an object and is unable to see alternative meanings or uses. It was applied to accounting by Ijiri, Jaedicke and Knight (1966), when they argued that if the output from different accounting methods are called by the same name (e.g. profit), non–experts tend to neglect the fact that alternative methods may have been used to prepare the output. Thus, rules which provide for the disclosure of all information (and, preferably, in a simplified form), will ensure the avoidance of the functional fixation problem.

102

(c) *Reduction in public confidence*:

Another commonly offered justification for mandatory disclosure rules is that they enhance the public's knowledge of and confidence in, the corporate sector and the economy as a whole. In the absence of disclosure regulation management becomes an unregulated monopolist of information. In this case the general public may believe that the market is not fair and either put less into equities or spend more on investigating before investing. In extreme cases when there is the fear of misinformation by firms, the public may withdraw their capital (Owusu–Ansah, 1998). In contrast, disclosure rules can have two potential beneficial effects: first, they can ensure the dissemination of financial information that may not be otherwise available; and, second, they can guarantee that companies disclose and are seen to be disclosing all information. A better informed public would, therefore, be less suspicious of the corporate sector and more public confidence will be placed in the markets. Coffee (1984, p.235) claims that "it is clear that financial disclosure regulation promotes the efficiency of not perfectly efficient capital markets because it supplies them with new information".

However, the implicit market failure propositions have not been left unchallenged. For example, the semi–strong form of the Efficient Market Hypothesis (EMH) maintains that market prices reflect fully and speedily all available information and that market prices will always equal the intrinsic value of a share (Fama, 1970). If the EMH is valid, then uninformed or naive investors can take a free ride on the information provided by the market and need not worry about being fooled by alternative accounting techniques of comparable firms (Watts and Zimmerman, 1986). Additionally, the existence of portfolio managers and other professionals, mean that unsophisticated investors can put their money in the hands of such sophisticated investors and get for themselves whatever advantages accrue to the better informed traders.

103

3.5.2 Free Market Theory

3.5.2.1 General

Proponents of this theory suggest that a freely operating market for accounting information can work efficiently and provide the desired level of information (e.g. Stigler, 1964). They argue that although mandated disclosure provides some accounting information, it involves considerable costs. The main argument of this theory is based on the rationale that the societal costs of regulation exceed the benefits derived. It is, therefore, better to leave accounting information to be determined by information seekers and information providers. The level of information so determined will be the optimum, since it will equate marginal costs of that information with its marginal benefits.

The theory is non–normative in the sense that it does not prescribe what the optimum disclosure levels should be. As in the case of regulation, the advocates of the free market theory have marshalled a substantial amount of conceptual arguments and empirical evidence to support their arguments. This section concentrates on the empirical studies of Stigler and Benston as well as the conceptual arguments derived from agency, signalling and positive accounting theories, the main arguments of which are presented below, again in broad form.

3.5.2.2 Empirical Studies: The Stigler – Benston Hypothesis

Stigler (1964) and subsequently Benston (1967, 1969, 1973, 1976, 1980, 1982) provided the intellectual spur for dismantling the apparatus regulating capital markets. While Stigler tried to show empirically that the US 1933 Securities Act's new issue registration requirements had no important effect on the quality of new securities sold

to the public, Benston has questioned the efficacy of the disclosure requirements of the US 1934 Securities Exchange Acts. Benston (1969) contends that there was little evidence of fraud in corporate financial statements before 1933 and opines that the introduction of compulsory disclosure rules was unnecessary. He, additionally, argues that financial reporting in the decade preceding the 1934 Acts was adequate, and that these statutes did not significantly improve the quality of information provided to investors. By studying the voluntary disclosure practices of the NYSE listed companies in June 1935 (the month before filing was required under the 1934 Act), he found that a very high percentage of companies were already disclosing the required information. Benston's main conclusion is that the securities laws produced few benefits and considerable costs. In a later article Benston (1980) emphasised that the question at issue is not whether disclosure as such is a good thing, but whether the benefits of mandatory disclosure exceed its costs, and which stakeholder groups obtain those benefits and bear these costs. He proposed that the societal costs of required disclosure exceed the benefits, and explains that the support for regulation comes from those stakeholders who do not have to pay the very high costs of producing this information (such as government agencies and analysts).

Nonetheless the Stigler–Benston hypothesis has been heavily criticised. Professor Seligman, the leading historian on the SEC, has contested Benston's account of market conditions in the pre–1934 period. For example, Seligman (1983) suggested that Benston's sample might have been biased because companies not intending to comply with the 1934 Act's requirement have left the NYSE to avoid the Act's coverage. Similarly, later researchers argued that there was a great disparity between the primitive financial disclosure that Benston observed (such as sales and depreciation data) and the kind of disclosure that would now have been required to disclose in order to reduce the incidence of fraud. They claimed that Benston's study is silent on whether management would have had voluntarily disclosed any information

material to investors other than the few primitive accounting categories listed (Ockabol and Tinker, 1993).

3.5.2.3 Conceptual Arguments

Stigler and Benston's criticisms of mandatory disclosure systems have been paralleled by conceptual arguments reported in the agency, signalling and positive accounting literature. These studies have provided additional academic arguments against mandatory disclosure systems suggesting that managers have strong incentives to disclose voluntarily all information that is material to investors.

(a)   Agency theory:

The basic assumption of agency theory is that individuals wish to maximise their utility and are sufficiently skillful to do so. As stated in Section 3.4.2.2, agency theory assumes a conflict of interest between corporate managers (as agents) and providers of capital (as principals). The conflict arises because, although managers are trying to maximise their own utility and capital providers their own wealth, decisions taken by the former may not maximise the latter's wealth. Thus, outside shareholders would assume that managers might resort to excessive remuneration packages and other fringe benefits, and the company's share price would be lower as a result. There is therefore a need to establish mechanisms to measure and monitor the agents' behaviour. This leads to agency costs which decrease the value of the company to the detriment of both managers and shareholders. It is, therefore, in the interest of both managers and shareholders to reduce agency costs using a range of devices such as external auditing and budget restrictions. Another way to reduce agency costs is to disclose all material information, in order to assure the market (and outside shareholders) that managers are unable to exploit their fiduciary position. It follows that since both managers and shareholders will benefit from such a course of action

that will reduce agency costs, they will voluntarily disclose all material information. Hence, any mandatory disclosure system is redundant (and costly) since all relevant disclosures will be made voluntarily.

Agency theory has not, however, gone uncontested. Ockabol and Tinker (1993), for example, argued that although agency theory goes some way towards explaining management's motivation to disclose all material information, it fails to account for non–financial motivations for suppressing disclosure, such as the reluctance by some companies to disclose for fear that it will aid their competitors. Additionally, agency theory ignores the fact that very often managers have significant motives to conceal adverse information or artificially enlarge the company's short term profits, in an attempt to boost their direct compensation (salary and bonuses) which are usually linked to corporate short term profitability. Similarly, Coffee (1984) concluded that agency theory ignores the fact that some managers have strong incentives to withhold positive information and try to undertake pre–emptive buyouts of their own firm.

(b)   Signalling theory:

Ross's (1979) *signalling theory* provides an additional explanation why market pressures and managers' self–interest motivate them to disclose all material information to investors. He stressed that since management's rewards depend on those of the company, whether tied directly via performance–based formulas or otherwise, it would be beneficial to disclose "good news" because it would raise the value of the firm and, concomitantly, management's rewards. In an attempt to signal the good news to the market in such a way that it will not be confused with all the misleading and false information being supplied, managers will have an incentive to validate the information with personal guarantees in the form of self–imposed penalties in the managerial compensation packages. These guarantees will be high enough to eliminate the incentive for managers who do not have good news to cheat by false

signalling. Ross, additionally claimed that managers with "no news" will also have an incentive to signal this to the market as well, in order to avoid being confused with firms with "bad news". Furthermore, firms with "good" and "no news" will be discouraged from publishing false reports because they have guarantees (such as hiring outside auditors and entering into publicly known performance related contracts) that they are not falsely disseminating the good or no news. This incentive–signalling mechanism additionally ensures that the worst news is also effectively signalled, since those firms with "bad news" are left with no recourse: they cannot match the guarantees offered by the "good news" and the "no news" firms; ". . . at the bottom of the hierarchy are those with the worst news, who would like to suppress it, but since it is not in their interest to offer the kinds of guarantees provided by those with better news, the worst news will also be effectively signalled" (Ross, 1979, p.187).

Nevertheless, Seligman (1983) claimed that signalling theory does not explain certain management disclosure practices such as the historical evidence of securities fraud and the prevalence of window dressing to obscure bad news. In addition, it is questionable whether non–disclosure means "bad news", since the firm may be protecting valuable secrets from competitors rather than hiding poor performance (Ockabol and Tinker, 1993).

(c)   Positive accounting theory:

Watts and Zimmerman (1986) also argued that information can best be supplied by market forces. Their proposition stems from the essence of *positive accounting methodology* which seeks to explain and predict, rather than prescribe, accounting practice. The positive approach to accounting is based on the proposition that managers, shareholders, regulators and politicians act in their own self–interest and attempt to maximise their utility. In choosing among alternative accounting policies they compare the relative costs and benefits and select the one which maximises their

utility. In this respect, management considers the effects of disclosed information on their compensation (as well as on taxes, political costs, regulations etc.). If management's compensation is linked to the firm's market value, managers have incentives to disclose information voluntarily in order to convince the market that they are not engaged in insider trading, thereby increasing the firm's market value and their own wealth as well. The managers will continue to disclose voluntarily as long as the cost of disclosure does not outweight the beneficial effects on the firm's market value. Additionally, based mainly on the Efficient Market Hypothesis (EMH), Watts and Zimmerman (1986) proposed that there is no need for regulating financial disclosure because in a semi–strong market security prices will reflect all available information and even naive investors are price protected because they can buy at a fair price.

The Watts and Zimmermans' (1986) arguments, however, have been subject to strong criticism. For example, Whittington (1987) argued that Watts and Zimmerman's use of EMH–based arguments is tendentious because it ignores a considerable body of evidence that the EMH may not hold true. In addition, he criticised their assumption that the information market is in a state of competitive equilibrium in all respects (so that naive investors are price protected), claiming that this is a strong assumption which has not been backed by any empirical evidence.

3.5.3   Visible or Invisible Hand?

The question of whether financial information should be left to be determined by free market forces or the regulator's "visible hand" is a difficult one; each theory is backed by theoretically sound arguments and equally appealing attacks on each others' propositions. However it seems that, on balance, the case for regulation is stronger for two main reasons. First, opponents of regulation have failed to develop a convincing case, supported with empirical evidence, which is free from significant exceptions or

restrictive assumptions. Second, the existence of some forms of regulation in all capital markets and the absence of complete deregulation adds a real life validity and practical attractiveness to the regulatory theory. The degree of regulation in each market depends, most probably, on the form of its efficiency as well as an array of other social, political and other environmental factors.

The examination of the regulation debate in this section, together with the discussion of the various factors affecting the demand and supply of accounting information presented in Sections 3.3 and 3.4, have synthesised a theoretical framework for corporate disclosure (Figure 3.1). This framework will be used in Chapter 5 as the logical base on which to speculate about the corporate characteristics that influence Cypriot and Greek corporate financial disclosure.

FIGURE 3.1:
SCHEMATIC DIAGRAM OF THE THEORETICAL FRAMEWORK FOR CORPORATE FINANCIAL DISCLOSURE

111
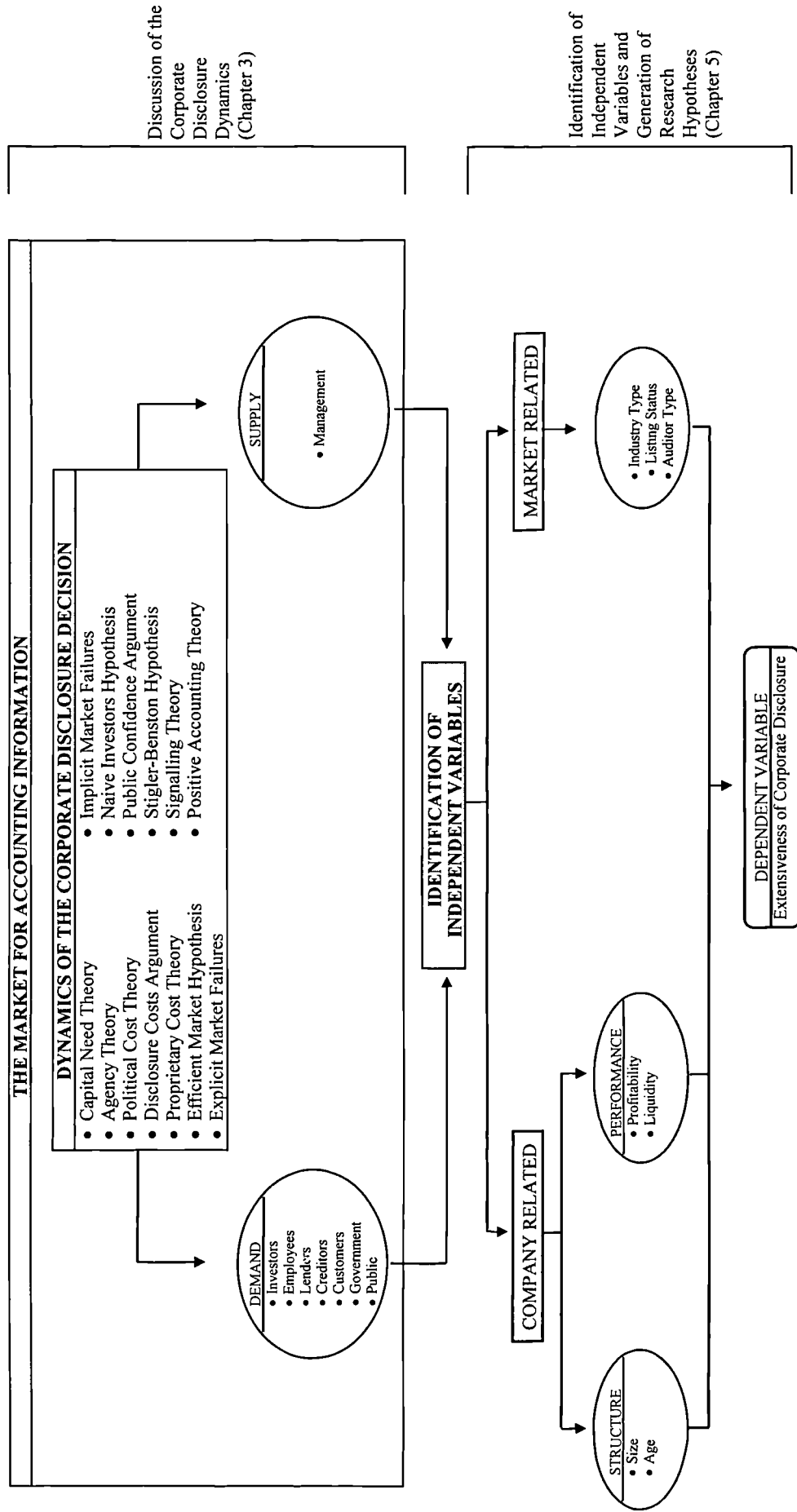
3.6 SUMMARY

This chapter has examined the underlying theoretical rationale of corporate financial disclosure. It has shown that corporate disclosure is a compromise between several conflicting forces. The demand for accounting information is derived from the decision making needs of several user groups, while supply has been entrusted to the company's managers who act as agents of the different classes of capital providers. It has been shown that while corporate disclosure is beneficial (e.g. it can minimise the company's cost of capital and reduce agency costs) there are incremental direct and (more importantly) indirect disclosure costs. Although many factors affect the management's disclosure decision, it is difficult for some of them to be precisely quantified and determine their exact impact on the corporate disclosure decision. This is the main reason for the classical controversy among accounting researchers: whether corporate disclosure should be mandated or left to be freely determined by demand and supply forces. The main theories concerning the disclosure debate were then presented and it was concluded that, although each theory is backed by sound theoretical arguments, the regulatory theory is more appealing as it explains the status quo. The discussion of disclosure dynamics has also revealed that a company's disclosure decision is related to a wide variety of variables which can have either a positive (i.e. result in an increase of corporate disclosure) or a negative (i.e. result in a decrease of corporate disclosure) influence. This discussion will be used in Chapter 5 as the logical base on which to speculate as to the corporate characteristics that influence financial disclosure in Cyprus and Greece.

CHAPTER 4

REVIEW OF PREVIOUS CORPORATE DISCLOSURE STUDIES

4.1   INTRODUCTION

This chapter reviews the significant findings from earlier relevant research on corporate financial disclosure. The purpose of this review is twofold. The first is to identify the gap in the literature which this study aspires to fill and the second is, by undertaking a critical review of the analytical techniques and research designs used, to establish the appropriate research methodology to be used in the present study. The discussion concentrates on those studies which, according to the researcher's opinion, have been the most influential in the area, and have either presented new empirical facts or have added to the sophistication and innovativeness of the analytical techniques used. A summary of the disclosure studies reviewed in this chapter, as well as a number of other selected disclosure studies is provided in Appendix D of the study. The review is split into two parts: single country and cross–national comparative disclosure studies.

4.2 SINGLE COUNTRY DISCLOSURE STUDIES

4.2.1 Developed Countries

In his pioneering work, Cerf (1961) was the first researcher to apply a scientific approach to measure the quality of corporate disclosure. He introduced the *index methodology* as a means of capturing the extent of corporate disclosure in a random sample of 527 U.S. CARs. These annual reports were scored based on a list of 31 information items which were weighted to reflect their relative importance to a group of financial analysts. The statistical tests carried out using the mean disclosure scores, showed that companies listed on the NYSE were disclosing significantly more information than companies not listed on the NYSE. A least–squares regression analysis revealed a positive association between the disclosure scores and asset size, ownership distribution and rate of return. Asset size was found to be the main explanatory variable of corporate disclosure as it had the largest contribution to adjusted R^2 when all variables were included in the regression model. However, Cerf's (1961) statistical analyses were later criticised by many researchers. For example, Singhvi and Desai (1971) pointed out that in view of the fact that Cerf (1961) established the existence of associations between the disclosure scores and the selected corporate characteristics by analysing the mean of classes (by using tests of difference), his analysis was not sufficient. They argued that since each class of companies did not have an equal number of observations, the average for a class is more likely to be influenced by extreme values.

Adopting Cerf's (1961) data and adding two more explanatory variables (auditor type and earnings margin), Singhvi and Desai (1971) preferred to use the chi–squared test to examine the relationship between corporate disclosure and a number of corporate characteristics. In contrast to Cerf (1961) (who found that asset size was the main

explanatory variable), a multivariate analysis showed that only listing status was a significant explanatory variable. However, Singhvi and Desai's (1971) research design and statistical analyses were criticised by Moore and Buzby (1972). For example, they questioned the use of an absolute rather than a relative scoring system (whereby the score for each company is not the actual disclosure score but the proportion of the actual disclosure score to the total possible score) and the lack of any formal tests for multicollinearity among the independent variables. Additionally, Moore and Buzby (1972) argued that instead of the chi–squared test, a more direct measure of correlation (such as the Kendall's tau) should have been used to measure the associations between the disclosure scores and the corporate characteristics. In an attempt to improve Singhvi and Desai's (1971) methodology, Buzby (1972) matched 44 U.S. listed companies with 44 unlisted (OTC) counterparts and calculated the disclosure index for each company on a relative basis. The Wilcoxon matched–pairs signed–ranks test and Kendall's tau provided evidence contrary to those of Singhvi and Desai (1971) but consistent with those of Cerf (1961): the extent of disclosure was positively associated with the size of a company's assets but not affected by listing status. However, Buzby's (1972) methodology has not been left unchallenged. Cooke (1989) criticised Buzby's matching procedure on the basis of asset size and questioned the representativeness of unlisted companies by those listed on the OTC since ". . . presumably a corporation goes on to the OTC market with a view to obtaining a full listing on an exchange in the future" (Cooke 1989, p.54).

Industry type was a characteristic first examined by Stagna (1976) and proved to be very popular in subsequent research (see Appendix D). Replicating Buzby's (1972) methodology, Stagna (1976) examined the association between the disclosure practices and the industry type and net sales of 80 U.S. listed companies. The scoring was based on a list of 79 information items, which were weighted to reflect their importance to a group of financial analysts surveyed. The results, however, added to the inconsistencies in the literature, in that only industry type was a significant

115

explanatory variable. Similar results to those of Stagna (1976) for the US were reported by Belkaoui and Kahl (1978) for Canada. Their study found that the extent of disclosure by 200 Canadian non–financial companies varied between industries. Furthermore, their results were in line with those of Cerf (1961), in that they have also reported a positive association between disclosure adequacy and size. In examining Canadian corporate disclosure Amernic and Maiocco (1981) adopted a different approach from that of Belkaoui and Kahl (1978). They carried out a longitudinal study by investigating the disclosure levels of 60 companies for the years 1967 to 1977. They reported a ". . . dramatic increase in disclosure by Canadian public corporations over the past decade" (Amernic and Maiocco, 1981, p.20). Using the Mann–Whitney test companies cross–listed on U.S. exchanges had significantly higher levels of disclosure than non cross–listed companies.

Interesting evidence about the impact of raising finance on a company's disclosure was provided by Firth (1980). Hypothesising that corporate disclosure practices are influenced by a company's need for new capital, Firth (1980) investigated the changes in the extent and quality of voluntary financial disclosure when raising finance in the stock market. Six samples of U.K. manufacturing companies were selected on the basis of the frequency with which they issued new shares. Their analyses revealed that . . . "smaller sized companies increased their voluntary disclosure levels significantly when raising new stock market finance . . ." (Firth, 1980, p.111–2). The field of corporate disclosure research was extended to Sweden by Cooke (1989). Using a company's listing status as a criterion, Cooke (1989) classified 90 Swedish companies into 3 categories (unlisted, single–listed and multiple–listed), and explored their aggregate, voluntary and social responsibility disclosure levels. One Way Analysis of Variance (ANOVA) revealed that unlisted, single–listed and multiple–listed firms were significantly different from each other for all types of disclosure. A multiple regression analysis demonstrated that the most important explanatory variable was quotation status followed by firm size. Using the same classification principle as in the

case of Swedish companies, Cooke (1991) examined the voluntary disclosure practices of 48 Japanese companies. Multiple linear regression showed that company size was the main explanatory variable, followed by listing status. In contrast to Cooke (1989), who found that Swedish trading companies disclosed less information than other industry types, Japanese manufacturing companies disclosed more information than others.

In the case of Spain, Wallace et al. (1994) used a list of 16 mandatory items and assessed the comprehensiveness of disclosure by 50 Spanish companies by giving credit to the fullness of information disclosed. A rank transformation of the dependent and the continuous independent variables enabled the researchers to use OLS regression on the ranked variables (ranked OLS regression) to cope with data sets with non–linear and monotonic relations between the disclosure scores and the selected corporate characteristics. It was found that comprehensiveness of disclosure increased with firm size and listing status. It is noteworthy that, in contrast to prior research (e.g. Belkaoui and Kahl, 1978), liquidity had a significant negative coefficient. In a voluntary disclosure study Raffournier (1995) defined voluntary disclosure in Switzerland as the items required to be disclosed by the EU Fourth and Seventh Directives (which were not mandatory in Switzerland). Multiple linear regression indicated that size and internationality level were significant explanatory variables for Swiss voluntary corporate disclosure. Interesting comments on Raffournier's (1995) work were made by Owusu–Ansah (1997). He criticised Raffournier's (1995) method of selecting the voluntary items for inclusion in his index, thereby casting doubt on the reliability and validity of his measuring instrument. Owusu–Ansah (1997) challenged Raffournier's (1995) definition of Swiss voluntary disclose and suggested an alternative approach. He highlighted a problem faced by researchers of voluntary disclosure: how to select the voluntary information items to be included in a voluntary disclosure index and, more importantly, how to the support the index's reliability and validity. He also questioned Raffournier's (1995) argument that large firms are politically sensitive

and as a consequence will disclose more to allay public criticism or government intervention in their affairs. Instead, Owusu–Ansah (1997) proposed that it is quite reasonable to expect politically–sensitive firms to disclose less voluntarily. This line of thought was consistent with that of Wallace et al. (1994), who argued that in some cases politically sensitive firms may disclose less information in an attempt to avoid the increased attention that comprehensive disclosure may draw to them. Finally, in the first voluntary disclosure study conducted for French companies, Depoers (2000) was the first to examine the impact of labour pressure on the extent of voluntary corporate disclosure. Deriving her hypotheses from agency theory and limitations imposed by information costs, she found that French corporate disclosure was significantly related to company size, foreign activity and a proxy for proprietary costs.

Before moving on to review disclosure studies on developing countries it should be noted that, although corporate financial disclosure is a topic that has received a great deal of attention in developed countries during the last 40 years, most studies focused on countries following the Anglo–Saxon accounting tradition (e.g. the U.S., the U.K. and Canada).

4.2.2 Developing Countries

A longitudinal research approach was adopted by Firer and Meth (1986) who investigated the voluntary disclosure practices of South African companies over the 1979–84 period. The researchers developed two weighting systems, reflecting the importance of the selected information items to a group of investment analysts and a group of financial directors. Despite the fact that the relative disclosure scores showed a general improvement in the overall level of disclosure over the period examined, the level of voluntary disclosure was considered to be relatively low. Using the disclosure index developed by Firth (1979) as a surrogate for the voluntary information

requirements in the U.K., the researchers compared the investors' requirements in the two countries. This was made by comparing the rankings (assigned to the information items by the analysts) of the items common to the Firth index and their index. The Spearman rank correlation coefficient did not reveal a significant correlation, a result which was mainly attributed to the differences in the social, political and economic environments of the two countries. However, the results of this study should be viewed with caution as the comparison was based on two disclosure indexes obtained at different times.

In Mexico, Chow and Wong–Boren (1987) explored the voluntary disclosure practices of 52 Mexican companies using a list of 24 information items. Although the researchers generated a weighted disclosure score for each firm they preferred an unweighted scoring procedure. The main reason for their preference was that ". . . since these ratings were obtained through a survey and without real economic consequences to the respondents, they may not fully reflect loan officers' actual use of each item" (Chow and Wong–Boren, 1987, p.536). It is interesting that the results of two cross–sectional regression models, where the weighted and the unweighted disclosure scores were used alternatively as the dependent variable, were equivalent. This provided evidence to support Spero's (1979) conclusion that unweighted and weighted scores can give similar results. Adopting a wide–ranging approach, Wallace (1987) examined the extent and scope of information disclosed in Nigerian CARs using a comprehensive list of 185 information items. Wallace (1987) was the first to propose a particular approach to overcome subjectivity in applying the relative scoring procedure. In order to decide whether an information item was relevant to a company, Wallace (1987) first examined all available records about the companies and read their CARs thoroughly. This procedure has subsequently been used by many other researchers (e.g. Cooke, 1989). Using a multiple regression procedure, Wallace found that many Nigerian companies publish CARs that do not adequately comply with mandatory disclosure minima. Furthermore, he confirmed Singhvi's (1967) results, in

119

that a positive association between type of management influence and the statutory disclosure was found.

An interesting result was reported by Tai et al. (1990), who examined the association between non–compliance with disclosure minima in Hong Kong and three corporate characteristics. They found that smaller and larger companies had significantly less non–compliance than medium–sized companies. No significant difference was found among the six business sectors examined or between companies audited by the international Big 8 firms and those audited by smaller local firms. Unfortunately, the researchers had little to say about the calculation of the disclosure non–compliance rates, as the results are summarised and reported in terms of eleven broad disclosure areas.[27] Furthermore, there was a lack of information as to how the researchers overcame the possibility of penalising a company for the non–disclosure of an irrelevant item.[28] The disclosure practices of Hong Kong companies were also investigated by Wallace and Naser (1995). As in Wallace et al. (1994), the degree of disclosure detail was rewarded by giving credit to the fullness of information disclosed. The regression analysis indicated that disclosure varied positively with asset size and scope of business operations. In contrast to previous studies (e.g. Singhvi, 1967), the disclosure scores varied negatively with profitability. The researchers explained that this could have been due to the unique characteristics of the capital market in Hong Kong and the distinguished nature of the Chinese managers' mindset (face). Furthermore, in contrast to Tai et al. (1990) and Wallace et al. (1994), the size of a company's audit firm was negatively related with disclosure.

---

[27] For example one category is "disclosure required by Companies Ordinance". No information is given how a very low compliance rate of 5 per cent (4 companies) was calculated. It is not clear whether those 4 companies failed to comply with all Companies Ordinance requirements or failure to comply with any requirement was reported as non–disclosure.

[28] For example, 19 companies were reported as non–complying with the disclosure requirements for "post balance sheet events and contingencies" but no information is given on how the researchers ensured the existence of such items that should have been reported by each company.

In investigating the corporate disclosure levels in a developing country Ahmed and Nicholls (1994) employed a different methodological approach. They used data for 63 Bangladeshi companies to develop a model to predict the probability of a company complying with mandatory disclosure requirements (using company characteristics as explanatory variables). The results indicated that subsidiaries of multinational companies and large audit firms had the most significant positive impact on the level of statutory disclosure compliance. Using the estimated model, a probability of compliance of 88.5 per cent could be predicted for a Bangladeshi company which was a subsidiary of a multinational, audited by a large audit firm, and had a qualified accountant as the principal accounting officer.

Researchers have constantly been innovative in investigating the impact of unexplored corporate characteristics on corporate disclosure and employing new statistical methods to examine this relationship. Abu–Nassar and Rutherford (1994) were the first to examine the relationship between Jordanian corporate disclosure and thirteen corporate characteristics. Apart from net income and company size (that have been found by previous researchers to influence corporate disclosure levels), the researchers found dividends and proportion of shares held by individuals to have, respectively, a positive and a negative influence on the disclosure levels of Jordanian companies. Adding to the innovations of statistical techniques used, Owusu–Ansah (1998) used robust regression analysis to investigate the mandatory disclosure practices of 49 companies listed in Zimbabwe. The results of the robust regression analysis indicated that company size, ownership structure, company age, multinational corporation affiliation and profitability had statistically significant positive effects on corporate disclosure practices. In the case of Egypt Abd–Elsalam (1999) investigated the accounting disclosure practices in a developing country which has adopted the IASs and has changed towards an economic policy of privatisation after many years of a socialist rule. Interestingly, she found that companies audited by one of the Big–6 international accounting firms offered the highest disclosure on items required by the

IASs, whilst large public sector companies which were actively traded in the national stock exchange provided the highest disclosure on items required by the Egyptian new disclosure regulations.

In summarising the results of the single country disclosure studies reviewed (Appendix D), it can be stated that subsequent to Cerf's (1961) path–breaking research, the majority of single country studies focused on developed countries. It was not until the 1980s, that this field of research was extended to a number of developing countries. Most researchers have used a dichotomous, unweighted and relative scoring procedure whereby the disclosure score is composed of dichotomous items which are not weighted when combined, and the sum is then expressed as a proportion. The main analytical tool used has been multiple regression (e.g. Chow and Wong–Boren, 1987). However, the sophistication and innovativeness of the analytical techniques used are improving continuously. For example, Cooke (1989) used different dummy variable manipulation procedures within a stepwise OLS procedure while Wallace and Naser (1995) used both ranked and unranked OLS regression to cope with data sets with non–linear and monotonic relationships between the dependent and the independent variables.

The literature review has also shown that the results of single country disclosure studies have been mixed and inconsistent. The inconsistencies in the results can be attributed to the lack of uniformity in the statistical approaches normally employed and the differing nature of the explanatory variables examined in these studies (Wallace and Naser, 1995). Additionally, the inconsistencies can also be due to the different stages of economic development of the countries examined, the stringency of the countries' disclosure requirements, the type of disclosure investigated and the period of the study. Although disclosure quality has usually been found to be related to a company's size and listing status, the results are usually contradictory or, at least, inconclusive, both within and between countries. For example, in Hong Kong the

quality of disclosure has been found to be influenced by a company's industry type by Wallace and Naser (1995) but not by Tai et al. (1990). Furthermore, profitability has been found to be positively related to disclosure quality in the U.S. (Singhvi and Desai, 1971) but negatively in Hong Kong (Wallace and Naser, 1995). It can, however, be concluded that the findings from previous studies tend to support the proposition that the quality of corporate disclosure in developed countries has usually been found to be better than in developing countries. Furthermore, as revealed by Appendix D, most studies indicate that company size and listing status are positively associated with disclosure. This was confirmed by Ahmed and Courtis (1999) who, in a meta-analysis of 29 disclosure studies, they have found a significant and positive relationship between disclosure levels and corporate size, listing status and leverage. Additionally, Ahmed and Courtis (1999) pointed out that in addition to sampling error, the results of the studies reviewed have been moderated by differences in disclosure index construction, differences in definition of the explanatory variables and differences in research settings.

4.3   CROSS-NATIONAL COMPARATIVE DISCLOSURE STUDIES

To the knowledge of the present researcher the first empirical cross-national comparative disclosure study was conducted by Singhvi (1967), who evaluated the quality of disclosure by U.S. and Indian companies. By studying the mean, range and standard deviation of the disclosure scores in each country, Singhvi (1967) concluded that the quality of disclosure in the U.S. was, on average, higher than in India. Singhvi's study, however, suffers from the "single-index syndrome". He tried to capture the quality of disclosure in both countries using a single index comprising only 34 common information items. It can be claimed that using such an approach to compare the aggregate disclosure levels in two countries which are at different stages of economic development and have different disclosure minima can be misleading. This is because the results can be biased in favour of the country with the stricter disclosure minima.

Barrett (1976) compared the extent and comprehensiveness of disclosure in the CARs of 103 companies from the U.S., the U.K., Japan, Sweden, Germany, France and the Netherlands for the 1963 – 1972 period. The corporate financial statements in the U.S. and the U.K. were found to be superior in terms of their extent and comprehensiveness of disclosure, with French companies ranked last.   Without carrying out any formal statistical tests, Barrett concluded that . . . "these results were certainly consistent with the general belief that there is a link between the quality of financial reporting practice and the degree of efficiency of national equity markets" (Barrett 1976, p.24). The main limitation of Barrett's study is that the 17 categories of information used to assess disclosure, were selected without taking into account the disclosure requirements in each country.   As a consequence, his results may be biased in favour of the U.S. and the U.K., whose mandatory disclosure requirements are considered to be stricter. Based on the data used in Barrett (1976), Barrett (1977)

examined whether the extent of financial disclosure by U.S. companies is different from that of companies from the other 6 countries. He found that, while on average U.S. companies disclose more information (except the British), they were not uniformly better in terms of specific information such as segmental reporting and capital expenditure. However, as in Barrett (1976), the researcher was not comparing like with like. For example, France was in the lower grouping in terms of disclosure, but this may reflect the fact that French users are assumed to be familiar with the Plan Comptable General, and no additional disclosure notes are usually provided.

In a different vein, Spero (1979) analysed the corporate voluntary disclosure practices in France, Sweden and the U.K. during the 1964 – 1972 time period. He proposed that financial disclosure is analogous to advertising, which seeks to increase the demand for a company's shares and reduce its cost of capital ("capital need hypothesis"). Seven disclosure indexes were constructed. Four were replicas of indexes used by Cerf (1961), Singhvi and Desai (1971), Chandra (1974) and Buzby (1975), and three were new indexes, namely the equal weights, the market weights and the split–equal methods. By carrying out different statistical tests, Spero was the first to provide evidence that ". . . different weighting schemes are not as important as item selection because companies that view disclosure positively disclosed many items and have high scores regardless of item weights" (p.64). Unlike Singhvi (1967) and Barrett (1976 and 1977), Spero focused on voluntary disclosure which avoids the potential problem of bias in favour of countries with the stricter mandatory disclosure requirements. Using OLS regression, the capital need hypothesis was partially supported by the empirical data in all three countries.

Using a scoring system based on the IASs, Cairns, Lafferty and Mantle (1984) attempted to evaluate the quality of disclosure by 250 of the world's largest companies from 17 different countries. A significant improvement in corporate reporting during the 1978–1983 period was found, which was attributed to improvements in national

disclosure regulatory frameworks and the influence of the IASs. Although the results of Barrett (1977) were confirmed (in that U.S. companies were found to be superior in disclosure), a methodological deficiency of multi–country comparison studies was brought into focus. The results revealed that no Swedish company ranked in either the top 25 or the bottom 25 companies, contradicting the results of Stilling, Norton and Hopkins (1984), who assessed the CARs of 175 companies from 19 countries against the requirements of IASs 1 to 13, and found that Volvo ranked first. This contradiction led Cooke and Wallace (1989) to comment that the results of the two studies (Cairns et al., 1984 and Stilling et al., 1984) ". . . just do not look right . . ." (Cooke and Wallace, 1989, p.54). Stilling et al. (1984) also found that only a few out of the 175 companies complied with the IAS's requirements. It is interesting to note that in terms of average rating per company, South Africa was ranked first, while the fifth and the ninth positions were taken by the U.S. and the U.K. respectively, a finding which also contradicts the results of Cairns et al. (1984).

Based on the information disclosed in financial and non–financial statements and the timeliness in the release of the CAR, Tonkin (1989) appraised the reporting practices of 200 of the world's leading companies. An index of disclosure, which was developed using an unspecified weighted scoring procedure and a descriptive international survey, revealed a superiority of U.K. companies. Cooke and Wallace (1989), however, criticised Tonkin's use of small samples and questioned the representativeness of national disclosure levels by transnational corporations, and stressed that the conclusions of Tonkin's study should be treated with caution.

In order to support the argument that harmonisation has not been successful because financial reporting and regulation may have multiple purposes reflecting each country's socio–cultural and political environment, Hussein (1996) compared financial disclosure and measurement practices in the U.S. and the Netherlands. A matched–pair analysis found no significant difference between the measurement methods used in the two

126

countries. In the case of financial disclosure, however, the analysis showed that large Dutch companies provided significantly more disclosure than their U.S. counterparts.

An interesting result was reported by Craig and Diga (1998), who analysed the mandatory disclosure practices in Singapore, Malaysia, Indonesia, the Philippines and Thailand. Although corporate disclosure levels were found to be positively correlated with size, leverage and foreign operation, banks and utilities (which have been assumed to have a high political cost exposure in these countries) were the industry groups with the lowest levels of disclosure. This result contradicts the common prediction, derived from political cost theory, that politically sensitive companies are likely to disclose more extensively in order to decrease their political costs. Additionally, this result lends some support to those researchers who claim that politically sensitive companies may disclose less extensively to avoid the increased attacks that comprehensive disclosure may draw to them (e.g. Wallace and Naser, 1995).

It can be concluded that the literature survey of cross–national comparative disclosure studies presented in this section reveals a paucity of disclosure studies for developing countries. This was long noted by Cooke and Wallace (1989, p.51) who commented that:

> *Cross–national studies are fraught with problems because of the underlying diversities in the economic, social and political systems of the world . . . . Any cross–national study of the quality of disclosure in corporate annual reports and accounts can only be meaningful if there is an internationally agreed perception of the order of importance of disclosure items, and if the companies and/or countries under study are, in broad items, similar (i.e. comparable).*

In most cross–national comparative disclosure studies, two main methodological approaches have been used. The first was to compare the disclosure practices of a

representative sample of companies from a limited number of countries (e.g. Singhvi, 1967), in order to derive conclusions about the quality of corporate disclosure and identify the factors influencing national disclosure practices. The second was to adopt a multi–country approach, where a small number of companies from a large number of countries were compared, in order to rank companies and countries in terms of a disclosure score (e.g. Tonkin, 1989). Although the former approach enables a generalisation of the conclusions to national corporate disclosure practices, the latter approach can be potentially misleading. This is because the number of companies to be examined from each country is usually small, casting doubt on the external validity of the study. Nevertheless, the multi–country approach does enable the researcher to derive some conclusions about the extent of disclosure in different countries. Additionally, the findings from the cross–national comparative studies reviewed tend to confirm the propositions that developed countries are usually superior in disclosure to developing countries (e.g. Singhvi, 1967), with Anglo–Saxon countries usually being in the lead (e.g. Barrett, 1977 and Tonkin, 1989). Nevertheless, the results of those studies have sometimes been contradictory too. For example, while the U.S. was found by Cairns et al. (1984) to be superior in disclosure, it was ranked fifth and sixth by Stilling et al. (1989) and Tonkin (1989) respectively.

The literature review also revealed a potential problem of cross–national comparative disclosure studies using a single index: the "single index syndrome", that is, using a common index to compare corporate disclosure practices in different countries which, in view of their environmental differences, are incomparable. Following Cooke and Wallace (1989), it can be argued that if a common index is to be used to compare the disclosure practices of companies from different countries then certain criteria must be satisfied. First, the countries included in the study must be comparable in terms of their socio–economic development. A researcher may not be comparing like with like, if he or she uses the same index to compare the disclosure practices in a developed country with a sophisticated capital market, with those in an underdeveloped country

which lacks a capital market. Second, the perceptions as to the objectives of financial statements and the order of importance of disclosure items must, in broad terms, be similar. Again, it can be misleading if one uses the same index to compare the corporate disclosure practices in a country where there is extensive state control of businesses and the objective of financial statements is to report conformity with political decisions, with those in a country with a free enterprise system where the objective of financial statements is to render useful information for economic decision making by a wide range of stakeholder groups. Finally, another criterion for using a common index to undertake cross–national comparisons of corporate disclosure practices is that the countries compared must have approximately the same disclosure minima, otherwise the index will be biased in favour of the country with the stricter disclosure requirements. It can be misleading to compare, for example, the adequacy of cash flow information disclosure between Cypriot and Greek companies on the basis of a common index, given that the related information is mandated in Cyprus but voluntary in Greece.

It is proposed that if the above criteria are not satisfied, then there are at least two methods to undertake a cross–national comparison of corporate disclosure practices. The first, is to use a separate index for each country. In this case the comparison will be *indirect*, in that the investigator will be assessing the quality of disclosure in each country, the factors influencing disclosure quality, the importance of each factor etc. This approach is often used by researchers when they compare their results with those found in other studies (e.g. Owusu–Ansah, 1998). A second, *direct* approach, via the use of a common index, can be followed only if the first two criteria mentioned earlier (relating to socio–economic development and users' perceptions) are satisfied, and the investigation is restricted to those types of information whose regulation is, in both countries, either entirely voluntary or entirely mandatory. For example, if there are, say, no disclosure requirements relating to segmental information in either country, a common index can be used to compare the voluntary disclosure of segmental

information. Alternatively, if there are, say, the same disclosure requirements relating to contingencies and post balance sheet events, a common index can be used to compare the disclosure of contingencies and post balance sheet events. In such cases, it must be made clear that it is not the totality of corporate disclosure practices that is being compared but a particular type of information (e.g. Craig and Diga, 1998).

4.4   THE GAP IN THE LITERATURE

The literature review revealed a gap in the literature, in that neither Cyprus nor Greece have been the subject of a single country disclosure study published in an English-language international accounting journal. Furthermore, a relative paucity of cross-national comparative disclosure studies on developing countries had been revealed. The lack of such studies in the literature on disclosure, and the appropriate context offered by Cyprus and Greece, inspired a desire and an enthusiasm to undertake this research endeavour. Additionally, having identified the gap in the literature and examined the various methodologies employed by previous disclosure researchers, the literature review has also established the background for choosing the appropriate methodology to be used in the study. This is considered in detail in Chapter 6.

4.5   SUMMARY

Chapter 4 reviewed the significant findings from earlier relevant research on corporate financial disclosure and identified the gap in the literature which this study aspires to fill. It has also established the background for choosing the appropriate methodology to be used in the study.

PART III

EMPIRICAL INVESTIGATION

CHAPTER 5

DEVELOPMENT AND FORMULATION OF RESEARCH HYPOTHESES

5.1 INTRODUCTION

The theoretical framework set out in Chapter 3 has shown that there are two different forces that influence the amount of corporate information disclosed. On the one hand are the users of financial statements who require extensive information to assist them in their decision making processes; and on the other is the corporate management who is responsible for the supply of corporate information but may be reluctant to disclose it for competitive, cost or other reasons. Furthermore, the discussion in Chapter 3 revealed that a company's disclosure decision can be influenced by many other factors, such as the need to reduce agency costs or the use of accounting information as a signalling device. The existence of those theoretical motivations behind corporate disclosure has inspired many researchers to try to relate corporate disclosure practices to a number of corporate characteristics such as company size, company profitability, company liquidity, industry–type, ethnicity of management, security price fluctuation and listing status. Given that a company's disclosure decision is influenced by a wide variety of considerations, the current study is based on a survey of the theoretical and empirical literatures (as in the case of Lang and Lundholm, 1993), rather than relying on a particular model [as in the case of Chow and Wong–Boren (1987) who relied only on agency theory].

Based on the background information about the Cypriot and Greek accounting environments presented in Chapter 2 and the theoretical framework for corporate financial disclosure formulated in Chapter 3, seven hypotheses have been developed to: (1) examine whether a relationship exists between the disclosure practices of

Cypriot and Greek companies and a number of corporate characteristics; and (2), in case a relationship exists, to derive its direction and strength. The selection of the specific corporate characteristics investigated in this study was made on the following basis: (1) the existence of strong theoretical justification or prior empirical evidence that a characteristic is related to corporate mandatory, voluntary or aggregate disclosure;[29] (2) the characteristic is relevant to the particularities of Cyprus and Greece and is believed to be influential in a company's disclosure by the researcher and the practising accountants/auditors or financial analysts interviewed in each country;[30] and (3), the characteristic is capable of being measured based on information disclosed in CARs or other easily accessible information.

The selection procedure referred to above identified seven corporate characteristics that can be related to the Cypriot and Greek corporate disclosure practices, namely: company size, company age, company profitability, company liquidity, industry type, listing status and auditor type. The theoretical reasoning behind the development of the hypotheses is the same for both Cypriot and Greek companies, with the exception of listing status and auditor type, where the particularities of each country require the development of different hypotheses.

---

[29] This is because although the information items to be investigated are mandatory, this study (as in the case of Wallace et al., 1994 and Wallace and Naser, 1995) also captures an element of voluntary disclosure. This is justified as follows: (1) Even for mandatory disclosure companies have substantial discretion in the informativeness of the disclosures and the amount of detail provided (Barrett, 1976; Wallace and Naser, 1995; Lang and Lundholm, 1996). As an example, companies have discretion on the extent of detail disclosed about contingencies and post balance sheet events; e.g. one company may just disclose the existence of a contingency, whereas another can explain the nature of the uncertainties involved and attempt to estimate their financial effect; (2) Mandatory and voluntary disclosures are sometimes substitutes, so that the "amount" of information produced by "more detailed" mandatory reports may be offset by a reduction in voluntary disclosures (Dye, 1985; Wallace and Naser, 1995). For example a company may give a very detailed segmental information note and avoid the presentation of general information about the growth, performance, market conditions and prospects of significant geographical or business segments.

[30] In view of the fact that the number of sample companies is small (50 for Cyprus and 74 for Greece) the opinion of the professionals interviewed (their names appear on page 23) was sought in order to limit the number of corporate characteristics to be examined as potential explanatory variables in the multivariate analyses. This was deemed necessary given that "in multivariate research the sample size should be several times (preferably 10 times or more) as large as the number of variables in the study" (Sekaran, 1992, p.254). This process eliminated the need to examine characteristics such as a company's gearing ratio and divided policy.

5.2   RESEARCH HYPOTHESES

5.2.1   Company Size

Wallace and Naser (1995) suggest that the direction of the relationship between the size of a firm and the comprehensiveness or extent of its disclosure is unclear. The general proposition, however, is that a company's disclosure practice is positively related to its size. Several reasons can be advanced in support of the positive influence of company size on corporate disclosure. The first relates to the *disclosure costs* proposition that was outlined in Section 3.4.2.3 of Chapter 3. The argument is that large companies can best afford both the directs costs of collecting and disseminating information (Buzby, 1975), as well as the indirect (proprietary) costs associated with increased disclosure. The indirect disclosure costs relate to the potential damage to a small company's competitive position that may result from the disclosure of detailed information to its competitors. In this respect, Craswell and Taylor (1992) opine that the managers of small companies are less likely to disclose full information in order to avoid a competitively disadvantageous position compared with larger companies in their industry. Hence, one may expect larger companies to disclose more extensively because they can best afford the direct and indirect costs associated with increased disclosure.

The second argument is derived from the *agency cost theory* presented in Section 3.5.2.3 of Chapter 3. Jensen and Meckling (1976) have demonstrated that agency costs are likely to increase with the proportion of outside capital. Given that the proportion of outside capital tends to be higher for large companies (Leftwich et al., 1981), it is reasonable to speculate that large companies are more likely to provide more information in an attempt to reduce their agency costs (e.g. Owusu–Ansah, 1998).

Another argument in favour of a positive relationship between corporate disclosure and size can be derived from the *political cost theory* discussed in Section 3.4.2.2 of Chapter 3. Since the pioneering work of Watts and Zimmerman (1978), it has been accepted in the literature that large companies are more sensitive to public scrutiny or government intervention than small companies, and that size can be considered as a proxy for political costs (Raffournier, 1995). This has been used by many researchers to argue that since large companies are more sensitive to political costs, they will disclose more extensively in order to enhance their chances to muster public support in order to overturn political actions (e.g. Craswell and Taylor, 1992). Similarly, Schipper (1981) proposes that large companies tend to have largest analyst following and that their reports are more likely to be scrutinised than those of small companies. It can, therefore, be argued that since large companies are more sensitive to public scrutiny or government intervention, they are more likely to comply with disclosure requirements in order to avoid political attacks and criticism for non-compliance that will most probably be revealed by the detailed scrutinisation process (e.g. Raffournier, 1995).

Nevertheless some researchers have the opposite view and, based on the political cost theory, contend that politically sensitive companies may disclose less information (Wallace, 1987; Wallace et al., 1994; Wallace and Naser, 1995). For example, Wallace (1987) proposes that large companies, being more politically sensitive, may reduce the likelihood of political action by disclosing less information in an attempt to avoid the increased attention that comprehensive disclosure may draw to them. It is, therefore, possible that large companies disclose less information in order to limit public attacks.[31]

---

[31] The discussion above brings to the surface the problem pointed out by Ball and Foster (1982); that size has been used as proxy for many influences (e.g. disclosure, agency and political costs) and that results confirming a size hypothesis may have alternative explanations. Hence, the results of the empirical analyses need to be interpreted with the necessary caution.

Although company size has regularly been found to associate positively with corporate disclosure (e.g. Cerf, 1961 and Cooke, 1991), economic theory is inconclusive as to the direction of the relationship. Hence, the following non–directional hypothesis is examined:

H1:   *There is an association between a company's size and the extent of its disclosure practice.*

5.2.2   Company Age

There are several theoretical grounds to assume that older companies are more likely to disclose more information than younger ones. For example, the *competition argument* proposes that young companies are not likely to disclose full information about their financial results and position, because this may prove to be detrimental if sensitive information is disclosed to the established competitors (Owusu–Ansah, 1998). Furthermore, it is likely that newcomers into the market will possess particular competitive advantages and, if detailed information is released, this may harm their competitive position. In contrast, old companies are less likely to be motivated to withhold such information since their competitive advantages cannot be easily challenged with increased disclosure (Owusu–Ansah, 1998). This is because they are long established and it is likely that the market is already aware of these advantages.

Additionally, younger companies can (on average) be expected to disclose less extensively than older companies for *practical purposes*. This is because they are less likely to have a long operating history and the scope for extensive disclosure may be limited (Abu–Nassar and Rutherford, 1994).

Another argument supporting the proposition that older companies are more likely to disclose more information that younger ones can be based on the assumption that the disclosure levels of old companies in a particular industry are usually treated as *disclosure yardsticks* for younger ones. Consequently, a newcomer will probably see the information disclosed by old and established competitors as the maximum disclosure level in the industry. Hence, it is possible that newcomers may not match the disclosure levels of old and established companies. Instead, as they grow and more fully comprehend the disclosure requirements, they are more likely to release extensive information.

The literature review in Chapter 4 has indicated that company age has not been a commonly used variable investigated in previous empirical research. Thus, given the absence of strong prior empirical evidence to support the theorised positive relationship, the following non–directional hypothesis is examined:

H2: *There is an association between a company's age and the extent of its disclosure practice*

5.2.3 Company Profitability

There is a general proposition that a company's willingness to disclose information is positively related to its profitability. One motive for this can be derived from *agency theory.* It is suggested that managers of profitable companies disclose extensive information in order to show and explain to shareholders that they are acting in their best interests and justify their compensation packages. This is supported by Singhvi and Desai's (1971) argument that managers are motivated to disclose detailed information when the company's rate of return is high, and less information when it is low. This is in order to support the continuance of their positions and compensation

packages when the company is profitable, and to cover up the reasons for bad performance when profits are falling.

Another motive can be derived from *signalling theory* outlined in Section 3.5.2.4 of Chapter 3. Signalling theory predicts that profitable companies are encouraged to disclose more adequate information to the market because failure to signal the good news may be interpreted as bad news (Inchausti, 1997). Thus, profitable companies will be more interested in giving detailed information to the market in order to avoid adverse selection problems and the undervaluation of their shares.

Finally, the *political cost theory* suggests that profitable companies draw public attention to themselves, and as a consequence some voters may lobby for political actions. Thus, profitable firms are more likely to be interested in disclosing more information to justify the levels of their profits (Inchausti, 1997) and counteract any potential government intrusion.

In contrast to the arguments presented above, some researchers propose that a company's disclosure practice is negatively related to its profitability. For example, Wagenhofer (1990) suggests that *signalling theory* can be used to support this hypothesis; namely, that information disclosure can be used as a mechanism for explaining bad news and that corporate disclosure is likely to be negatively related to profitability. This is complemented by Wallace and Nasers' (1995) proposition that companies with lower profit margins may view their results as bad news and provide more detailed information as part of their accountability.

A second argument in favour of a negative relationship between corporate disclosure and profitability is derived from *political cost theory*. Some researchers propose that companies with large declared profits may be more politically sensitive and fear greater government or public intervention (Owusu–Ansah, 1997). Disclosure draws the

attention of the government and the public and leads to greater pressures for regulation and intervention. Hence, if disclosure leads to greater government or public intervention, then, firms with huge reported profits may be reluctant to disclose more information in order to avoid such political attacks (Owusu–Ansah, 1997).

Empirical evidence has been mixed. Singhvi (1967) reported a positive association between profitability and aggregate disclosure and Abu–Nassar and Rutherford (1994) found a positive association between profitability and voluntary disclosure. In contrast, Wallace and Naser (1995) found a negative association between profitability and mandatory disclosure. Consequently, it is not possible to provide a priori specification of the direction of the relationship between profitability and the extent of corporate disclosure in Cyprus and Greece. Consequently, it is hypothesised, that:

H3: *There is an association between a company's profitability and the extent of its disclosure practice.*

5.2.4 Company Liquidity

It is usually theorised that the extent of a company's disclosure is negatively related with its liquidity. This proposition is mainly sustained by theoretical justifications stemming from *signalling theory*. Wallace et. al (1994, p.46) propose that ". . . if liquidity is perceived in the market as a measure of performance, a firm with a low liquidity ratio may need to give more details to explain its 'weak' performance than a firm with a high liquidity ratio". Thus, a company in financial difficulties is likely to use accounting information to signal the fact that it is a going concern and allay the fears of capital providers.

A similar relationship between liquidity and the extent of corporate disclosure can be predicted based on the presumption that when a company is in financial difficulties it faces *increased pressures* from shareholders and lenders for more detailed information so as to confirm its ability to continue in existence. It is therefore likely that a company in financial difficulty will disclose more information in response to the pressures from shareholders and lenders. Moreover, the accounts of companies with liquidity problems are more likely to be scrutinised by analysts and other professionals in order to assess the likelihood of failure or otherwise. In view of the fact that such a detailed scrutinisation process is more likely to reveal non–compliance with disclosure rules, it can be expected that such companies will be particularly careful to observe disclosure minima; hence the possibility of disclosing more extensively is increased.

Nevertheless, if liquidity is viewed as a measure of a company's soundness, the *capital need theory* (presented in Section 3.4.2.2 of Chapter 3) can be used to hypothesise for a positive relationship with corporate disclosure. Belkaoui and Kahl (1978) propose that the liquidity of a company is an accounting measure of its business risk. Liquidity affects investors' uncertainty in the capital market and the company's cost of capital. As a result, a financially strong company would be more interested to communicate its soundness to the market than a financially weak one, in an attempt to reduce investors' uncertainty and decrease their required rate of return.

Although Belkaoui and Kahl (1978) did not find a significant relationship between liquidity and the extent of disclosure by Canadian companies, a negative relationship has been reported by Wallace et al. (1994) in the case of Spanish companies. Given, however, that economic theory is inconclusive as to the direction of the relationship between a company's liquidity and the extent of its disclosure practice, the following non–directional hypothesis is examined:

H4:   *There is an association between a company's liquidity and the extent of its*

        disclosure practice.

5.2.5   Industry Type

The perception that the extent of information disclosure in CAFSs is likely to differ

across different industries is widespread. One reason is the existence of *industry–*

specific factors, such as the complexity and nature of operations in certain industries

(e.g. conglomerates). For example, a company with diversified interests seems likely

to have a greater volume of financial information to report than an undiversified one

(Craig and Diga, 1998). Additionally, it can be argued that a multiproduct company

operating in a number of geographical or business segments, is more likely to have an

efficient management information system for managerial control than a single product

company operating in a particular market segment. It is, therefore, possible that some

of the available information is also disclosed in the company's CAFSs in order to meet

the needs of financiers, suppliers, customers, analysts and the public in general.

Second, the *dominant firm argument* can be used to explain why a company may lead

to a bandwagon effect on the disclosure policies of other companies in the same

industry (Wallace, 1987). For example, a nationally dominant company with a high

level of disclosure within a particular industry may lead to a bandwagon effect on the

levels of disclosure adopted by other companies in that industry (Cooke, 1991).

Similarly, the dominant company might have set a precedent of low disclosure which

may be followed by other companies entering that industry.

The industry effect has been supported in aggregate, mandatory and voluntary

disclosure studies. For example, Cooke (1989) found that Swedish trading companies

disclosed less aggregate and voluntary information than other industry types. Cooke

(1991) demonstrated that Japanese manufacturing companies disclosed more voluntary information than others, while Wallace and Naser (1995) reported that conglomerate Hong Kong companies tended to provide more details in their annual reports. Consequently, the following hypothesis is tested:

H5: *The extent of a company's disclosure practice varies depending on the industry to which it belongs (whether it is a manufacturer, conglomerate or other).*

5.2.6 Listing Status

5.2.6.1 Hypothesis for Cypriot Companies

There are several conceptually valid arguments supporting the proposition that companies that are domestically listed are more likely to disclose more adequately in their annual reports than their unlisted counterparts. First, *agency* problems may vary with quotation status because an unlisted company with a small number of shareholders may be more successful in maintaining the agents than a listed company with a multitude of shareholders (Cooke, 1989). Given that disclosure in annual reports is one way of reducing monitoring costs (Schipper, 1981), it can be claimed that listed companies are more likely to disclose detailed information as a way of reducing those costs.

Second, in an effort to minimise its cost of capital, a listed company is more likely to have more extensive disclosure than an unlisted company. Given that a prime motive for disclosure is the need to raise capital at the lower cost (*capital–need theory*), it is expected that companies whose securities are traded in capital markets will disclose extensive information in order to improve the estimates of their share's mean return

144

and the covariance of the return with the market return. This lower their systematic risk and decrease their cost of capital (Spero, 1979). In contrast, it can be argued that unlisted companies will be less motivated to release detailed information because they do not depend on the market for their capital needs, and the impact of increased information on their share's mean return and the covariance of the return with the market return is less obvious. In this context, Cooke (1993, p.523) argues that "in order to raise capital on the markets, companies may increase their voluntary disclosure and increase compliance with mandated disclosures, particularly because they are subject to more rigorous public scrutiny".

Third, the existence of *disclosure costs* can also be used to predict increased disclosure by listed companies. This is because when a company initially applies to be listed it provides extensive amount of information pertaining to its past, present and future affairs, some of which needs to be up–dated periodically. It can, therefore, be argued that since the marginal cost of publicising some of this information is likely to be minimal, a listed company is more likely to disclose more extensively than an unlisted company.

Even though, Buzby (1972) found a company's listing status insignificant in the variation of aggregate disclosure practices of US companies, prior empirical evidence usually supports the domestic listing status proposition (e.g. Singhvi and Desai, 1971 and Firth, 1979). Based on the arguments above, it can be hypothesised that listing status has a positive effect on the disclosure practices of Cypriot listed companies. Therefore, the hypothesis examined is that:

H6(C): *The extent of disclosure of a Cypriot listed company is greater than that of an unlisted one.*

5.2.6.2   Hypothesis for Greek Companies

Although the Greek sample includes only listed companies, a distinction can be made between those companies listed on the main market and those listed on the parallel market of the ASE. Both types of companies have the same disclosure responsibilities but it is possible to hypothesise for a directional relationship between their listing status and the extent of their financial disclosure. This is because there are reasons to suspect that the extent of disclosure is higher by companies listed on the main market. This is based on the assumption that agency problems may vary with the type of a company's listing status because main market listed companies are more likely to have a greater number of shareholders.[32] In such a case *agency theory* can be used to speculate that there will be more potential conflicts between managers (as agents) and capital providers (as principals), and corporate management can use extensive information disclosure to decrease agency costs and reduce information asymmetries between agents and principals (Watts, 1977).

Appendix D reveals that the type of a company's domestic listing status has not been a very popular variable investigated in prior empirical research. Most previous studies focused on either the listing/no listing dichotomy (e.g. Wallace et al., 1994) or tested the multiple listing effect (e.g. Cooke, 1989). In addition, most studies that examined the effect of the type of a company's domestic listing status, investigated information disclosed by companies listed on different national stock exchanges with significant differences in disclosure requirements (e.g. Buzby, 1972). This is not the case in Greece, where the main market of the ASE does not have any additional disclosure requirements compared to the parallel market. Nevertheless, in view of the strong theoretical support for a priori expectation it can hypothesised that:

---

[32] The number of shareholders was available only for 44 companies listed on the main market of the ASE.

H6(G):   *The extent of disclose of a Greek main–market listed company is greater*

than that of a parallel–market listed one.

5.2.7   Auditor Type

5.2.7.1   Hypothesis for Cypriot Companies

In spite of the fact that the primary responsibility for the preparation of the CAFSs rests with corporate managers, the literature suggests that auditors may have an influence on the disclosure policies of their client companies. Specifically, it has been proposed that large and well–known audit firms may incite companies to disclose more information (e.g. Singhvi and Desai, 1971; Firth, 1979). There are different explanations for this influence. First, Beaty (1989) argues that large audit firms invest more to maintain their reputation as providers of quality audit than small firms, and have a greater incentive to discover and report a breach of accounting rules. De Angelo (1981) found that auditor size and quality are strongly correlated. She calls this phenomenon a *collateral aspect* and notes that companies whose annual reports contain errors and irregularities would diminish the reputation (brand name) of large audit firms if the latter are associated with them. Hence, large audit firms encourage their clients to disclose greater amount of information in their CAFSs.

A second argument in support of a relationship between type of auditor and quality of disclosure has been suggested by Malone, Fries and Jones (1993). They note that small audit firms are often more sensitive to client demands because they stand to suffer more in case a client is lost. This implies an *economic dependency* and a hesitation to report a lack of compliance with statutory disclosure requirements. In contrast, large audit firms have a lower economic dependency on a particular client and are more likely to report non–compliance with disclosure regulations.

147

Another argument in favour of the proposition that there is a relationship between type of auditor and quality of disclosure has been put forward by Jensen and Meckling (1976) and Watts and Zimmerman (1986). They suggested that auditors play a major role in limiting opportunistic behaviour by agents, thereby reducing the *agency costs* borne by principals and agents. It has been argued that companies engaging large audit firms are those which have substantial agency costs and try to reduce them by contracting with these audit firms (Inchausti, 1997). Hence, it is expected that when agency costs are greater there is an increased demand for the audit services of large firms, with a consequential effect on disclosure quality.

Appendix D shows that the positive influence of large audit firms on the corporate disclosure practices of their clients has been supported in several studies (e.g. Ahmed and Nicholls, 1994 and Singhvi 1967). Based on the theoretical and empirical evidence outlined above and given that in Cyprus the distinction between the Big 5/non–Big 5 is a well established dichotomy for audit size and quality[33], it is reasonable to hypothesise that:

H7(C): *The extent of disclosure of a Cypriot Big 5 audited company is greater than that of a non–Big 5 audited one.*

---

[33] Although there is no objective data about the market share of each firm, an analysis of the audit reports of Cypriot public companies shows that the local affiliates of the Big 5 have the majority of the audit assignments from such companies (42 out of the 50 Cypriot CAFSs examined in this study were audited by Big 5 audit firms). Furthermore, the unstructured interviews with Cypriot academics and practitioners confirmed that the Big 5/non–Big 5 distinction is regularly used by Cypriot academics and practitioners as a dichotomy for audit size and quality.

5.2.7.2 Hypothesis for Greek Companies

The conjectured relationship between Big 5/non–Big 5 firms and the disclosure quality of their clients is not clear in the case of Greek companies. Given the distinctive nature of the Greek market for audit services, the Big 5/non–Big 5 dichotomy for audit size is not applicable. After the 1992 liberalisation of the audit profession, firms have split into three groups. There is the SELE group, comprising the local branches of international audit firms; the SOL SA group, which is the private audit company set up by the majority of the ex–SOL members; and the splinter ex–SOL group, which is the group of small audit practices set up by the minority of ex–SOL members (the last two groups are usually referred to as the "indigenous auditors"). Second, it is not clear whether the representatives of the Big 5 are in fact the group of the "large audit firms". Although there is no data on the market share of each firm in total audit revenue or trend over time, there is some evidence that the two groups of indigenous auditors managed to retain the vast majority of audit assignments (Caramanis, 1997).

Nevertheless, it is still possible to hypothesise for a relationship between auditor type and quality of disclosure. It can be argued that companies audited by the SELE group are more likely to provide more detailed disclosure than companies audited by the indigenous auditors. This is because the SELE member audit firms, which are internationally–affiliated, are backed more by the expertise of the international firms to which they are affiliated compared to local Greek audit firms without such affiliation ("*theory of association*" – Wallace et al., 1994). It may therefore be expected that the clients of such firms are more likely to accede to advice regarding the quality of their CAFSs than the clients of the other firms.

Likewise, internationally affiliated firms can be assumed to be more sensitive to *quality and reputation* issues because they are associated with a worldwide brandname which guarantees a standard quality of service. They are, therefore, more likely to report

149

non-compliance with disclosure regulations because the detection of a failure to do so may harm the international brand name and jeopardise their relationship with the international firms. Hence, being a client of a SELE member audit firm may increase the likelihood of a company disclosing more detailed mandatory information.

Given that, to the knowledge of the present researcher, there are no previous disclosure studies on Greek corporate disclosure the hypothesised relationship cannot be complemented by any prior empirical evidence. Hence, the following non-directional hypothesis is examined:

H7(G):   *There is an association between a Greek company's auditor type and the extent of its disclosure practice.*

5.3   SUMMARY

Based on the theoretical framework set out in Chapter 3 and the literature review presented in Chapter 4, this chapter formulated some relationships between the disclosure practices of Cypriot and Greek companies and seven corporate characteristics. These relationships were expressed in the form of research hypotheses to facilitate their statistical analysis. The testing of those hypotheses will give some reliable information about the kind of relationships that exist between each of the variables and the extent of Cypriot and Greek corporate disclosure. It must be emphasised that there may be other potential hypotheses that can be derived from the theoretical framework (such as the existence of share compensation plans for directors) that would have been very interesting to examine, but the lack of relevant information makes these impossible to consider.

CHAPTER 6

RESEARCH DESIGN AND METHODOLOGY

6.1   INTRODUCTION

This chapter presents the most important elements of the research design that were broadly outlined in Chapter 1. It determines the method and type of investigation carried out and clarifies the unit of analysis and time horizon of the study. Additionally, it sheds light on the data collection and sampling design and explains and justifies the methodological techniques used to measure the corporate disclosure practices and the selected corporate characteristics.

The research design involves a series of decision making choices made in order to gather and interpret the data in accordance with the research objectives (Sekaran, 1992). As shown in Figure 6.1, the components of the empirical part of the study have been divided into four groups. While this section describes briefly the details of the study (that is, the method and type of investigation undertaken, the approach for comparison, the unit of analysis and the time horizon of the study), the rest of the chapter discusses the data collection and the measurement and analysis techniques used. Chapters 7 – 8 analyse and interpret the data and Chapter 9 compares the empirical findings for Cyprus and Greece.

As stated in Chapter 1, the research was conducted using the hypothetico–deductive research process. In this process one starts with a theory from which he or she generates hypotheses (deduction), proceeds to observation or data collection (operationalisation), analyses the data (data processing), evaluates the findings (interpretation) and, in case there is evidence against the theory, goes back to modify

FIGURE 6.1:
THE RESEARCH DESIGN

DETAILS OF THE STUDY

METHOD	APPROACH FOR COMPARISON	TYPE OF INVESTIGATION
Hypothetico-deductive	Indirect	Causal

UNIT OF ANALYSIS		TIME HORIZON
Individual sample companies		Cross-sectional

DATA COLLECTION

SAMPLING DESIGN

All population elements were contacted

DATA COLLECTION METHOD

Secondary data obtained through mail, telephone requests and visits to the Ministry of Commerce

Chapter 6

MEASUREMENT OF VARIABLES

ADEQUATE DISCLOSURE
Via index methodology

CORPORATE CHARACTERISTICS
Via presumed indicants

DATA QUALITY

Tests for reliability and validity

DATA ANALYSIS AND INTERPRETATION

FEEL FOR DATA

Descriptive statistics

HYPOTHESIS TESTING

Bivariate & Multivariate analyses

INTERPRETATION

Comparison of Cyprus and Greece

Chapters 7-9

153

the theory. The hypothetico–deductive research process was used in this study for two reasons. First, the nature of the research problem and the type of research questions set call for a process of: (1) testing hypotheses in accordance with the established standards in the literature; and (2), providing answers to the research questions via an analysis and explanation of causal relationships. This is the procedure followed by the hypothetico–deductive method. The alternative inductive method, is not considered appropriate for this study because it proceeds in the opposite direction: by trying to generate a theory from the ground up. This is not the objective of this study as the main aim is not to generate a new theory of corporate disclosure but to test existing theories using new data. The second reason for using the hypothetico–deductive method is because its widespread use in the corporate disclosure literature indicates that it is currently the most appropriate method for investigating national corporate disclosure practices.

As clarified in Chapter 4, there are at least two approaches that can be used to undertake a cross–national comparison between Cypriot and Greek corporate disclosure practices. The first is to develop a common index for both countries and make a direct comparison. The second is to develop a separate index for each country and make an indirect comparison (that is, effectively carrying out two single country disclosure investigations and making an indirect comparison of the results). As concluded in Chapter 4, if the direct approach is to be used all of the following conditions must be satisfied: (1) the countries concerned must be comparable in terms of their socio–economic development; (2) the perceptions as to the objectives of financial statements and the order of importance of disclosure items must, in broad terms, be the same in both countries; and (3), the countries compared must have the same disclosure minima. The background information for Cyprus and Greece provided in Chapter 2 showed that these conditions are not satisfied as far as the two countries are concerned. Hence, in this study the cross–national comparison of

corporate disclosure practices was made with the construction of a separate disclosure measuring instrument for each country (indirect approach).

As noted earlier, the hypothetico–deductive method of research involves an analysis of causal relationships and their explanation by existing theories. Hence, a causal type of investigation was needed and the objective was to identify the important corporate characteristics that influence Cypriot and Greek mandatory corporate disclosure. It should be cautioned that the term causality has been the subject of very extensive philosophical discussions in the statistical literature and different definitions can be offered for the term (Cox, 1993). In the context of this study the definition of causality used is that offered by Cox (1993). That is, a corporate characteristic (X) is assumed to be a cause of corporate disclosure (Y) if: (1) regression analysis reveals that all possible regression equations for Y include a substantively important contribution from X; and (2), there is a reasonably well–established economic theory underlying and explaining the dependence of corporate disclosure on the specific corporate characteristic. The use of well–established economic theories to explain the dependence of corporate disclosure on specific corporate characteristics, is expected to strengthen the internal validity of the study (that is, the degree to which we can draw valid conclusions about the causal effects of the variables).

The units of analysis selected for this study are the individual Cypriot public and Greek listed companies. Despite the fact that information can be communicated to users through different media (such as interim reports, press releases and profit announcements), the CAFSs of the sample companies were used as the main source of data because they are widely accepted as the most appropriate way in which information can be presented in order to meet the objective of financial reporting (ASB, 1996). Additionally, the set of CAFSs is the only general–purpose financial reporting document which is widely available to all user groups and is subject to an independent examination by the auditors of the company.

A disclosure study can be either longitudinal or cross–sectional. A limitation of cross–sectional studies is that although one can formulate hypotheses in terms of effects and test them by looking for associations (as it is the case with the second research question in this study), he or she cannot conclude that the association definitely means a causal relationship. Longitudinal studies, on the other hand, could help identify cause–effect relationships more clearly because data are gathered at two different points in time (before and after manipulation). However, a longitudinal study, which could have drawn causal relationships more clearly, was not practical in the case of this study because at the commencement of the research effort (late 1996) the regulatory framework of accounting in Cyprus was changed with the opening up of the official CSE (29 March 1996). Thus, only a cross–sectional analysis of corporate disclosure practices was possible. The causal relationship between corporate disclosure and the selected corporate characteristics was evaluated through the use of regression analysis and well–established economic theories to explain any dependencies. The year 1996 was selected because it was the latest full year at the commencement of the research effort.

6.2   DATA COLLECTION AND SAMPLE DESIGN

6.2.1   Data Collection and Sample Design for Cyprus

As at the end of 1996, there were 135 registered public companies in Cyprus, 41 of which were listed on the CSE. Six registered companies that were owned and managed by Turks were not requested to participate in the study because of the political situation in Cyprus. Additionally, 17 financial companies (banks, insurance and investment companies) were eliminated because they are subject to special disclosure requirements (under Schedule 8 of the 1951 Companies Act) which may affect their overall disclosure practices. The exclusion of the above companies resulted in an initial target population of 112 companies (27 listed and 85 unlisted), which was considered to be relatively small. In view of this, all elements of the target population were contacted for a copy of their audited CAFSs for the financial year ended in 1996.

The addresses of the listed companies were obtained from the CSE, whereas those of unlisted companies from the Registrar of Companies. A letter was despatched to all the elements of the target population in May 1997. The letter explained the objectives and the importance of the study and guaranteed respondent anonymity. The initial response rate was 30 per cent. Two reminder letters were sent to non–respondent companies in September and December 1997, which raised the total response rate to 45 per cent. The response rate from listed companies was 100 per cent whereas that from unlisted companies was 27 per cent (Table 6.1). Although some responding companies despatched an English version of their accounts, all have supplied their

accounts in Greek. As such, the Greek version of their accounts was used in the investigation.[34]

As the response rate from unlisted companies (27 per cent) was considered to be relatively low, a random sample of 10 non-respondents were contacted by telephone to clarify the reasons for not responding. The telephone inquiries revealed that: (1) two companies have not started actual operations since incorporation; (2) two companies were unwilling to participate in the study; (3) three companies had not finalised their accounts as at January 1998; (4) two companies have ceased operations; and (5), one company was in the process of liquidation. Although the response rate from unlisted companies was only 27 per cent, the results of the telephone inquiries suggest that the accounts of many non-responding unlisted companies would not provide meaningful elements of the target population. It is, therefore, reasonable to assume that the Cypriot sample is representative of the final target population, that is those Cypriot public companies which prepare and publish CAFSs that can be used as a meaningful basis for informed decision making.

TABLE 6.1:
SUMMARY OF SAMPLE SIZE FOR CYPRIOT COMPANIES

COMPANIES	TARGET POPULATION (N°)	SAMPLE (N°)	PROPORTION OF SAMPLE TO POPULATION (%)
Listed	27	27	100
Unlisted	85	23	27
TOTAL	112	50	45

---

[34] A cross check between the Greek and English versions of the accounts for 10 randomly selected companies confirmed that there were no differences between the two sets of accounts.

6.2.2　Data Collection and Sample Design for Greece

The addresses of the 218 listed companies (181 main market listed and 37 paral'el market listed) as at the end of 1996 were obtained from the ASE. As was the case of Cypriot companies, financial companies were eliminated resulting in a target population of 175 companies (141 main market and 34 parallel market listed). In view of the relatively small size of the target population a letter was despatched to all companies in May 1997 requesting a copy of their CAFSs for the financial year ended in 1996. The letter explained the objectives and the importance of the study and guaranteed respondent anonymity. The initial response rate was 32 per cent.

An analysis of the initial responses revealed that some responding companies had not despatched their notes to the accounts. For those companies, the Ministry of Commerce in Athens was visited in order to obtain a copy of their notes to the accounts.[35] After the despatch of two reminders to non–respondents and a second visit to the Ministry of Commerce, the CAFSs of 74 companies were obtained, bringing the response rate to 42 per cent. The response rate from main market listed companies was 44 per cent whereas that from parallel market listed companies was 35 per cent (Table 6.2). As in the case of Cyprus, all companies supplied a Greek version of their accounts, which was the version used in the investigation.

Although the response rate from Greek companies was high when compared to other disclosure studies (e.g. Cooke, 1992), the representantiveness of the sample was checked by seeing if it comprised a representative number of companies from the main and the parallel market of the ASE and the different ASE industrial classifications.

---

[35] According to Law 2190/20 all companies registered in Greece are required to file their annual accounts together with supplemental notes with the Ministry of Commerce. The kind assistance (in retrieving these notes to the accounts) of Mr. A. Daoudakis, Mr. A. Demetrakas, Ms. D. Sfyroera, Ms. I. Manolioudaki, Ms. M. Kalaintzaki and Ms. F. Mendrinou at the Ministry of Commerce in Athens is gratefully acknowledged.

Additionally, it was confirmed that companies of all sizes (in terms of market value) were included in the sample.[36] It, therefore, seems reasonable to conclude that the sample is representative of Greek companies in terms of listing status, industry type and company size (as measured by market value) and can be used as a valid and reliable sample from which to draw inferences.

TABLE 6.2:
SUMMARY OF SAMPLE SIZE FOR GREEK COMPANIES

COMPANIES	TARGET POPULATION (N^a)	SAMPLE (N^a)	PROPORTION OF SAMPLE TO POPULATION (%)
Main market listed	141	62	44
Parallel market listed	34	12	35
TOTAL	175	74	42

---

[36] The sample comprised 44 per cent of the main market and 35 per cent of the parallel market listed companies. In terms of the ASE industrial classifications the sample comprised: 43 per cent of holding companies, 67 per cent of shipping, 23 per cent of textiles, 80 per cent of chemicals, 50 per cent of pharmaceuticals, 60 per cent of building materials, 29 per cent of construction/technicals, 40 per cent of metallurgicals, 50 per cent of food/spirits, 50 per cent of flour mills, 67 per cent of containers, 100 per cent of wood, 58 per cent of others, 50 per cent of informatics and 35 per cent of parallel market companies. Additionally, the sample included the company in the cold storages class, the two companies in the tobacco class, the company in the printed information class and excluded the company in the telecommunications class, the company in the mines class, the company in the mass media class and the 2 companies in the hotels class. Finally, in order to ensure that companies of all sizes were represented in the sample, the 175 companies of the targeted population were ranked in terms of their market value (in descending order) and divided into four quartiles. The 74 sample companies were distributed as follows: 21 in the first quartile, 20 in the second quartile, 19 in the third quartile and 14 in the fourth quartile. It can, therefore, be assumed that a reasonable number of companies from the two ASE markets, the different ASE industrial classifications and the four company size quartiles were included in the sample.

6.3   MEASUREMENT OF DISCLOSURE QUALITY

6.3.1   The Nature of Disclosure Quality

6.3.1.1   Financial Disclosure

The concept of disclosure is very important in financial accounting and reporting. Choi and Mueller (1992) stress that the process of accounting measurement together with that of accounting disclosure give corporate financial reporting its substance. Nevertheless, the concept of disclosure is broad enough to encompass almost the entire area of financial reporting (Hendriksen, 1982). It is, therefore, essential that the concept is contextually and operationally defined, in order to clarify the focus of interest under investigation and develop a reliable measurement technique. For the purposes of this study, *financial disclosure* is defined as the communication of economic information to users of financial statements so as to aid their decision making. This information is restricted to those quantitative (numerical) and qualitative (narrative) items required to be disclosed in the 1996 CAFSs of Cypriot public and Greek listed companies. The reason for including in the definition both quantitative and qualitative information items is twofold. First, disclosure of qualitative information usually enhances the understanding of quantitative information and, second, the accounting discipline is now expanding into areas previously viewed as qualitative in nature (Belkaoui, 1994).

6.3.1.2   Disclosure Quality

Wallace (1987) emphasises that financial disclosure is an abstract concept which cannot be measured directly because it does not possess those characteristics by which one can determine its intensity or quality like the capacity of an automobile.

The ASB states that the qualitative characteristics of accounting information are those that render it useful for decision making, and that they can be divided into those that relate to the content of information contained in financial statements and those relating to how that information is presented. The primary characteristics relating to content are relevance and reliability. Relevance is ". . . the ability of that information to influence the decisions of users . . ." whereas reliability implies that the information is ". . . free from material error and bias . . ." (ASB, 1996, p.851–2). On the other hand, the primary characteristics relating to presentation are those of comparability and understandability. Comparability requires similar events and transactions to be represented in a similar way, while understandability refers to the aggregation and classification of items in a manner that will be comprehensible to an average user of CAFSs. Moreover, the ASB proposes that financial information should have additional characteristics if it is to be relevant and reliable, such as having predictive and confirmatory value, reflect the substance of transactions and being neutral, prudent, complete and consistent.

The discussion above illustrates that disclosure quality is not only a broad and abstract concept, but a highly subjective and complex issue as well. Furthermore, the ASB accepts that there are several constraints on the qualitative characteristics noted above; such as a trade off between some of them and the need to achieve a balance between benefit and cost in the production of information. Consequently, ". . . it is seldom possible to prepare information that is completely reliable, relevant, comparable and understandable" (ASB, 1996, p.855). Instead, the aim is usually to achieve an appropriate balance among them in order to meet the objective of usefulness. Within this context Imhoff (1992, p.101) defined disclosure quality as an evaluator's ". . . overall subjective assessment of the relevance, reliability and comparability of the accounting data produced by the reporting entity – in essence, the relative usefulness of the data, and the analyses based on the data".

162

6.3.1.3   Conceptual Definition of Disclosure Quality

Recognising the problems outlined above, several researchers have tried to assess different aspects of disclosure quality in different studies, rather than try to examine all (or most) of them at once.   Constructs used to represent disclosure quality in the literature include adequacy (adequate for a defined purpose, e.g. Buzby, 1974); informativeness (whether reporting earnings suggest the direction of share prices, e.g. Alford, Jordan, Leftwich and Zmijewski, 1993); timeliness (whether the time of release of the CAR is affected by good or bad news, e.g. Courtis, 1976); understandability (whether the CAR communicates effectively with its readers, e.g. Jones, 1986); and extensiveness (whether more detailed information is provided, e.g. Patton and Zelenka, 1997). The construct of interest in this study is *extensiveness*. The main reason for selecting this proxy is that it can easily be linked to disclosure quality and usefulness. This is because ". . . on the basis of the preceding (Imhoff's, 1992) definition and excluding the problem of information overload, the quality of disclosure in CARs would be expected to increase if more details were given on each information item of interest . . ." (Wallace and Naser, 1995, p.327).   Although it is possible for a company to provide extensive information which may be incorrect or immaterial, it has been decided to ignore this problem based on the assumption that audited CAFSs are free from this potential problem. Furthermore, Wallace and Naser (1995, p.327) argue that ". . . the possibility of misinformation in annual reports is a problem that it is not logically feasible to investigate".

6.3.1.4   Operational Definition of Disclosure Quality

Patton and Zelenka (1997) propose that there are four possible approaches to operationalise the *extent of disclosure*. The first is to evaluate the extent or quality of information disclosed based on the usefulness of information items as determined by a

normative decision model. The second is to evaluate a company's quality of disclosure based on a group of knowledgeable analysts' evaluation of the annual report. The third is to assess the extent of market reaction to the disclosure of information. The final approach to operationalise disclosure extensiveness is to assess the extent of compliance with a set of legal or GAAP requirements.

In this study the fourth approach was employed and disclosure extensiveness was operationalised by assessing the extent of compliance with the relevant mandatory disclosure requirements. This is because the first three approaches are problematic in the settings of Cyprus and Greece. Operationalising extensive disclosure on the basis of a normative decision model is problematic because there is no generally accepted or defensible valuation model specifying the links between accounting information and appropriate security value (Patton and Zelenka, 1997). Additionally, the operationalisation of extensive disclosure on the basis of a group of analysts' evaluation of the annual report suffers from the disadvantage that analysts' ratings are based on "analysts' perceptions of disclosure" (Lang and Lundholm, 1993). Finally, unresolvable issues in selecting an event window for the analysis renders the operationalisation of extensive disclosure on the basis of market reaction to the disclosure of information problematic (Patton and Zelenka, 1997). In sum, the method selected to operationalise extensive disclosure enables an objective and easy operationalisation method to be used, which can facilitate the application of valid and reliable measurement techniques. This is of fundamental importance in an empirical study because it can facilitate meaningful statistical analyses on the corporate disclosure scores.

For measurement purposes, the extent of disclosure is *operationally defined* as the quantity and quality of information items disclosed in the CAFSs. The quantity of disclosure items was captured by the number of information items that are disclosed (out of those required), whereas the quality of disclosure was captured by the

disaggregation of the mandatory information items into sub–elements of information that should or could have been disclosed. The disaggregation was done in order to capture the relative intensity of mandatory disclosure in the CAFSs of Cypriot and Greek companies. This approach was also used by Owusu–Ansah (1998).

6.3.1.5   Definition of Mandatory Information

Mandatory information items are defined as those information items explicitly required to be disclosed by the relevant institutional pronouncements applicable to Cypriot public and Greek listed companies in 1996.   In the case of Cyprus, mandatory items are those required to be disclosed by the Companies Act 1951 and the IASs.   The additional disclosure requirements of the CSE were excluded because the focus of interest was on public (either listed or unlisted) companies.   In the case of Greece, mandatory items were those required to be disclosed by Law 2190/20, the GGAP and the ASE.   The definition of mandatory information for Greek companies included the ASE requirements because the focus of interest was on Greek public listed companies.

The type of information items examined in this study are mandatory.   However, the study captures an element of voluntary disclosure as well because the mandatory information items that must be disclosed are broken down into sub–elements of information that could have been disclosed; hence, the disclosure of those sub–elements is effectively up to the discretion of management.   Therefore, in this study adequate disclosure is measured by the extent of detail to which the sample companies disclosed mandatory information items.   The decision to focus on the extent of detail in which companies disclose mandatory information can be justified on the following grounds. First, the amount of information required to be disclosed in both Cyprus and Greece is extensive and by disaggregating those mandated items into sub–elements of information, very detailed and comprehensive disclosure measuring

instruments will be produced, that will adequately capture the quantity and quality of corporate disclosure. Second, Cypriot and Greek financial reporting have not yet started to emulate to a significant extent, the practice of providing information items that are entirely voluntary. Finally, to include the investigation items that are entirely voluntary may obscure the very thing being looked for – the extensiveness by which the mandated information elements are disclosed (Wallace and Naser, 1995).

6.3.2   Methods of Measurement

There are two main methods that have been used to measure corporate disclosure. The first is the *content approach*, which was introduced in disclosure studies by Copeland and Fredericks (1968). It involves the counting of all information items appearing in the CAFSs on the basis of the number of words and numbers used to describe them. Although this approach has been described as a systematic method of converting text to numerical variables for quantitative data analysis (Hussey and Hussey, 1997), it is not considered to be a satisfactory measurement method to be used in this study. This is because in CAFSs there are repetitions of certain numbers and words which can lead to double counting. In addition, companies differ in their nature and complexity of operations and more complex companies would have more to disclose than simple ones. It would be wrong to rank such companies higher merely because more words have been used and more numbers have been included in their CAFSs.

The alternative method is the *index approach*, which involves the checking of information disclosed against a list of information items; a score is awarded depending on whether an item is disclosed or not, and a total score is derived for each company. Hence, the index method is a model that combines several disclosure items into a single measure. Owusu–Ansah (1998) notes that this approach has several

advantages. For example, it is capable of tapping differences between the financial reporting practices of different companies and it rank–orders companies in terms of their disclosure scores. Additionally, Wallace and Cooke (1990) suggest that because scores on an index can be treated as a variable to which both parametric and non–parametric methods can be applied, the index approach affords researchers the possibility to carry out suitable statistical and econometric analyses.

Nevertheless, the index approach is beset by several potential problems which, if not properly dealt with, can lead to the generation of unreliable scores. First, there are dangers of including irrelevant, or excluding relevant, information items in the index. Second, there are potential dangers in deciding the importance (or weight) of every item in the instrument: shall all items be treated of equal importance or shall they be weighted? Finally, there is a potential problem of some of the information items in the index not being applicable to some of the sample companies.

In spite of the above potential drawbacks, the index methodology was preferred and used in this study because it is currently the most appropriate measurement tool available (Marston and Shrives, 1991) and has widely been used in the literature (e.g. Cerf, 1961 and Wallace and Naser, 1995). Additionally, the operational procedures of the index methodology have been carefully followed in order to avoid the potential problems referred to above. These procedures are discussed in Section 6.3.3 below.

6.3.3   The Index Methodology

6.3.3.1   Selection of the Information Items

There are many potential dangers associated with the selection of the items to be included in the scoring instrument. The first relates to the decision of which and how many items to be included in the instrument. Wallace (1988) pointed out that there is no theory governing the selection of information items to be included in an index. Generally, the selection of items is determined by the focus of the study concerned. Usual methods of selection include a survey of the relevant user groups (e.g. Firth, 1980), a review of the relevant literature (e.g. Chow and Wong–Boren, 1987) and the use of an existing index (e.g. Marston, 1986). In this study, the focus of interest is the extent of detail by which the sample companies disclose mandatory information. Thus, the information items included in the indexes were those explicitly mandated by the relevant legal and institutional pronouncement in each country. Nevertheless, there exists an element of subjectivity, in that the information items have been broken down into sub–elements of information that could have been disclosed for each item. In order to limit subjectivity in the construction of the index, the break down has been done based on a review of the voluntary disclosures of the IASs and the U.K. SSAPs/FRSs.[37] It is believed that this approach has enabled the researcher to construct the disclosure indexes for this study as objectively as possible.

In disclosure studies there is usually a potential danger that in constructing the indexes one excludes items which are relevant to users' decision making, and/or includes items which are irrelevant. However, this problem is more relevant to voluntary disclosure

---

[37] For example, Greek law requires the disclosure of an analysis and explanation of research and development expenditure. Based on the disclosure requirements of the SSAP 13, this information item was sub–analysed into 3 elements that could have been disclosed i.e. (1) the total amount of research and development expenditure charged to the income statement; (2) an analysis of the amounts involved; (3) a commentary about the intangible asset or the accounting policy explanation.

studies. As this study focuses on mandatory disclosure and the indexes include the information items required to be disclosed in each country, it is reasonable to assume that in the case of both Cyprus and Greece the disclosure minima represent what the average user requires in order to take informed decisions. This is based on the fact that these disclosure minima mainly comprise the requirements of the IASs (in the case of Cyprus) and of the EU Fourth and Seventh Directives (in the case of Greece). Additionally, the voluntary sub–elements of information items that could have been disclosed have been derived from the voluntary disclosures of the IASs and the UK SSAPs/FRSs. Hence, it is reasonable to assume that these pronouncements incorporate the most important information items required by the average user of the CAFSs. It should be pointed out that the issue of whether what is required to be disclosed (and its sub–elements of information) is what is actually needed by users, is an issue outside the scope of this study.

Finally, there is the problem of duplication. That is, the possibility of including (in the disclosure index) an item more than once, in case it is required by more than one regulatory source. In this study, the problem of duplication was avoided by selecting the most comprehensive requirement for inclusion in the measuring instruments.

The selection procedure described above produced a list of 332 items for Cyprus and 514 for Greece (the disclosure measuring instruments are attached as Appendices B and C). Although there is no agreed theory on the number and the selection of the items to include is a disclosure index (Wallace et al., 1994), the disclosure measuring instruments used in this study appear to be amongst the most comprehensive used in a disclosure study. This is evidenced by the fact that the number of items examined in both Cyprus and Greece is very high when compared to indices used by previous disclosure researchers. Previous studies which examined such a high number of items include Spero (1979), Cooke (1989) and Owusu–Ansah (1998) with 275, 224 and 214 items respectively.

6.3.3.2   Weighting the Index

The selected information items can be weighted to reflect their relative importance to the researcher or a particular user group. The weights to be used can be assigned after a review of the relevant literature and the exercise of subjective judgement on the part of the researcher (as to the importance of each item), or through the use of mean ratings from a survey of a particular user group (e.g. Buzby, 1975). The alternative approach is to use an unweighted procedure where an item is scored one if disclosed and zero if not (that is, on a dichotomous basis).

An unweighted scoring procedure was preferred and used in this study because it is assumed that each item is equally important to the average user of the CAFSs. This assumption is not unrealistic since this study does not focus on the information needs of any particular user group of the financial statements. Additionally, there is evidence to suggest that there is no significant difference between unweighted and weighted indexes (Spero, 1979; Robbins and Austin, 1986; Chow and Wong–Boren, 1987). For example, Spero (1979) reported that attaching weights to information items was irrelevant because his sample firms were consistent in their disclosure policies (that is, those enterprises that are better at disclosing important items are also better at disclosing less important items[38]). Finally, there is evidence that the relative importance of an information item is not stable over time but depends upon the prevalent economic conditions (Collins, 1975; cited in Dhaliwal, 1980).

---

[38] Wallace and Naser (1995) have cautioned against the assumption of equivalence between weighted and unweighted indexes because this may not be true in all cases. They argued that the equivalence depends on how refined is the compound index and suggest that compound and simple index numbers cannot be guaranteed to agree closely in all circumstances.

6.3.3.3 Scoring the CAFSs

As stated earlier, the scoring procedure was based on a dichotomous basis by which an item is scored one if it is disclosed and zero if otherwise. This procedure has two potential problems. The first is how to capture the degree of specificity of each of the information items disclosed and the second is how to ensure that a company is not penalised for the non–disclosure of an inapplicable information item.

In this study, the first problem was overcome by developing sub–elements of information which were appropriately validated and scored on a dichotomous basis. On the other hand, the problem of penalising a company for the non–disclosure of an inapplicable item is a difficult one. Wallace and Naser (1995) note that the best way to overcome this problem is by going directly into the accounting books and records of each company and assessing whether a particular item that was not disclosed, was in fact, inapplicable. Since this is difficult to do, the problem of items inapplicability was reduced by reading thoroughly the CAFSs in order to make a judgement as to whether an item which was not disclosed was in fact relevant to a company (following Wallace, 1987). In such a case a zero was awarded. If, however, the item was not applicable then the company was not penalised.

6.3.3.4 Development of the Indices

Since the actual disclosure score for each company is additive, the possibility of some information items being inapplicable to some companies in the sample renders the comparison between the total disclosure scores suspect. This problem can be overcome by ensuring that all information items in the measuring instrument are, in fact, relevant to all companies in the sample. This, however, was not feasible in this study because the use of very detailed scoring instruments meant that some items

would, inevitably, be inapplicable to some companies. As a result, it was decided to follow a *relative* scoring procedure where disclosure scores are calculated by dividing the actual score of a company by its total maximum possible score. This approach was preferred because ". . . it is conceptually better than an absolute scoring system, especially if a researcher desires to study the quality of disclosure in various industries" (Singhvi and Desai, 1972).

The relative index score (*RIS*) for each company is the ratio of the actual score (*AS*), which is awarded on the basis of the items actually disclosed, to the total maximum score (*TMS*), which could have been awarded had that company disclosed all applicable items. Thus:

$$RIS = AS \div TMS \qquad (6.1)$$

But,
$$AS = \sum_{i=1}^{N} d_i \qquad (6.2)$$

and,
$$TMS = \sum_{i=1}^{N} a_i \qquad (6.3)$$

Therefore,
$$RIS = \frac{\sum_{i=1}^{N} d_i}{\sum_{i=1}^{N} a_i} \qquad (6.4)$$

where:

$d_i = 1$ *if item i is applicable and disclosed by a sample company*

$= 0$ *if item i is not disclosed by a sample company*

172

$a_i = 1$ *if item i is applicable to a sample company*

    $= 0$ *if item i is not applicable to a sample company*

$N =$ *the total number of items which might be disclosed by a sample company (332*

    for Cypriot and 514 for Greek companies).

6.4 MEASUREMENT OF CORPORATE CHARACTERISTICS

6.4.1 Introduction

This section presents the empirical indicants of the corporate characteristics investigated in the study and explains the rationale behind the measurements used. Some corporate characteristics are verifiable facts (e.g. a company's listing status), but others are subjective because they are not directly observable. In the case of those that were not directly observable, they were inferred by observing some of their presumed empirical indicants (proxies). The indicants were then specified operationally in order to derive an appropriate technique to represent those characteristics numerically, so that they could have been statistically analysed.

6.4.2 Company Size

Several variables have been used as a proxy for company size including total assets (e.g. Cerf, 1961), sales (e.g. Stagna, 1976) and market capitalisation (e.g. Hossain et al., 1994). Although there is no overriding theoretical reason to prefer one way of measurement over others (Cooke, 1991), Appendix D reveals that total assets and sales have been the most popular measurements of company size. It must, however, be noted that all measures mentioned above have potential problems. For example, total assets and sales are capable of manipulation by management via creative accounting techniques. A decision by management to exclude the consolidation of a subsidiary on the grounds of dissimilar activities or lack of effective control (and its inclusion using either the equity or the cost methods) can have a fundamental impact on the total assets and sales figures of the group. On the other hand, market–capitalisation is subject to short–term market–price fluctuations.

In this study the size of Greek companies was measured by total assets (tangible and intangible fixed assets plus current assets), net sales (sales less sales returns) and market capitalisation. The size of Cypriot companies was measured by total assets and net sales. Market capitalisation had not been used in the case of Cypriot companies, because the Cypriot sample includes unlisted companies for which a market valuation of their shares was not available. The primary motivation behind the selection of these proxies is the fact that they have been used extensively in prior research and will enable the researcher to compare his results with those of previous studies. Furthermore, all the variables were easily determinable. Sales had been measured by total group sales for the year, total assets by the total of the net book value of fixed assets plus the book value of current assets, and market capitalisation by the market value of equity shares at the end of the year under consideration. The figures reported are in millions of Cyprus Pounds and Greek Drachmas.

6.4.3   Company Age

A company's age can be measured on different bases. For example a company's age can be calculated as the number of years, half years or quarters since the date of its incorporation, actual commencement of operations, or listing.

In the case of Cyprus, it was not possible to determine for all companies in the sample the date of incorporation or the date of commencement of operations. This is because there is no requirement for a company to disclose this information in its annual report. Additionally, the listing date is not appropriate because the Cypriot sample includes both listed and unlisted companies. Hence, since it was not possible to measure the age of all Cypriot companies in the sample[39], it was decided not to test for the

---

[39] The age of all companies could have been determined by searching the file of each company at the Registrar of Companies. This, however, would have been a very time consuming and costly exercise as a special permission and an inspection fee is required. This was deemed to cause disproportionate delay and expense in the research effort and was not undertaken.

175

influence of company age on Cypriot corporate disclosure practices.

In the case of Greece, however, the date of incorporation was found in the ASE Annual Factbook and the age of Greek companies was operationalised as the number of years since the company's date of incorporation.

6.4.4   Company Profitability

There are many different bases that can be used to measure a company's profitability. Some of these express the company's profitability on an absolute basis (such as profit e.g. Abu–Nassar and Rutherford, 1994) and some on a relative basis (such as profit margin, e.g. Singhvi, 1967; and rate of return e.g. Raffournier, 1995). It was decided to measure profitability on a relative, rather than an absolute basis, because the latter is not considered to be a satisfactory measure of profitability for the purposes of this study; US$100,000 profit for the biggest company is not the same as US$100,000 profit for the smallest. In an effort to examine both the operational efficiency of the company as well as the efficiency of its financial achievement, profitability was operationalised in two ways: as the ratio of a company's profit to its sales (*profit margin*), and as the ratio of a company's profit to its capital employed [*Return on Capital Employed* – (ROCE)].

In measuring a company's rate of return, total capital is of interest because the primary objective is to assess corporate financial achievement regardless of how the company is financed. The selection of total capital as the basis on which to assess rate of return determined the relevant profit figure to be included in both the rate of return and the profit margin ratios. Thus, earnings before interest and tax (EBIT) was used, because there was a need to relate profit to all those entitled to that return (that is, all types of shareholders, debenture holders and other interest–bearing loan capital providers).

Relating EBIT to equity (as in Wallace et al., 1994) may not adequately capture rate of return as this profit belongs to all capital providers and not only to equity shareholders. Finally, book values, as opposed to market values, had been selected to measure capital as: (1) most forms of debt in Cyprus and Greece are not traded and it would have been inappropriate to measure total capital using a mixture of market and book values; and (2), the existence of unlisted companies in the Cypriot sample rendered the use of market value for equity inappropriate for that country.

6.4.5 Company Liquidity

A company's liquidity position can be operationalised on the basis of information derived from its cash flow statement or its balance sheet. If the latter is selected there are two measures of liquidity that are normally used: the first is the company's quick (acid test) ratio and the second is the company's current ratio. Their difference is that the former excludes the value of stocks in measuring corporate liquidity.

Given that there is no requirement for Greek companies to publish a cash or a funds flow statement and having in mind the desire to compare the results between the two countries, it was decided to operationalise the company's liquidity position on the basis of balance sheet information. A company's current, as opposed to its quick, ratio was preferred for two reasons. First, it is the company's short term, as opposed to immediate, liquidity that is of interest. Short term liquidity is normally measured by the current ratio. Furthermore, since auditors in both countries are required to ensure that stocks are valued at the lower of cost and net realisable value, it is not unrealistic to assume that stocks do represent, on average, liquid assets which are easily convertible to cash. Current ratio was measured as the ratio of a company's current assets to its current liabilities at the end of the year under consideration.

6.4.6 Industry Type

Although the CSE classifies the Cypriot listed non–financial companies into four categories, the Cypriot unlisted companies are not classified by any institution or body. On the other hand, in the case of Greece, the ASE classifies Greek listed companies into twenty one categories. In order to reduce the number of industries in the samples, it was decided to gather them into groups which have been found to influence corporate disclosure in other countries (the manufacturing and conglomerate groups). For example, Cooke (1991) found that Japanese manufacturing companies disclose more extensively than non–manufacturing companies, while Wallace and Naser (1995) reported that Hong Kong conglomerate companies disclose more comprehensive information than non–conglomerate ones. Hence, it was decided to classify companies into three groups: manufacturing, conglomerates and others.

The classification was made on the basis of a scrutiny of a company's CAR or CAFSs and the determination of its principal economic activity, where this is defined as the activity from which the company derives 80 per cent or more of its revenue. Companies were firstly classified as "conglomerates" in case there was no single industry from which they derived 80 per cent or more of their revenue. The remaining were temporarily classified single–sector companies. Then, the single–sector companies were classified as "manufacturing" in case their main economic activity was either: (1) the use of labour and/or machinery to turn raw materials to finished goods; or (2) the construction of buildings, roads, etc. The remaining single–sector companies were classified as "others". The companies classified as "others" engaged in tourism, services, shipping, transport, communication, retailing and wholesaling.

A problem arose because this variable was measured on a categorical (nominal) scale. Given that OLS regression was used in the multivariate statistical analyses, dummy

variables were required. Consequently, membership of an industry group was represented by three dichotomous variables that received the value of one if the company belonged to that group and zero if otherwise. Since these three variables must sum to one, multicollinearity might be introduced if all three are incorporated in a regression analysis. Hence, in the regression analyses undertaken in Chapters 7 and 8 (Sections 7.4 and 8.4) one of the dummy variables was omitted arbitrarily from the regression procedures in order to avoid perfect colinearity.

6.4.7 Listing Status

The Cypriot companies can be categorised into listed and unlisted, while the Greek companies can be classified on the basis of their type of listing, that is whether a company is listed on the main or the parallel market of the ASE.

Because the listing status variable was measured on a categorical (nominal) scale, a dummy variable was needed. The variable was scored one if a Cypriot company was listed and zero if unlisted. In the case of Greek companies, the variable was scored one if the company was listed on the main market and zero if it was listed on the parallel market.

6.4.8 Auditor Type

A common corporate characteristic examined in previous studies is the size of a company's audit firm. However, the determination of whether a Cypriot audit firm is large or small is a difficult task. There is no information about the audit fees, total fees, number of clients or any other reliable information on the basis of which to classify Cypriot audit firms. However, given that: (1) the Big 5/non–Big 5 dichotomy has been used extensively in prior research as a proxy for audit size and quality (e.g.

Raffournier, 1995); (2) it is widely used and accepted in Cyprus as a proxy for audit size and quality[40], it was reasonable to categorise Cypriot audit firms into large and small on the basis of that dichotomy. In the case of Greece, however, the hypothesised relationship required the classification of audit firms on the basis of firm origin rather than of firm size. Thus, Greek audit firms were classified into SELE firms and indigenous firms (comprising SOL SA and ex–SOL firms).

As in the case of listing status, auditor type was measured on a categorical (nominal) scale and dummy variables were required. The variable was scored one if a Cypriot company was audited by a Big 5 audit firm and zero if otherwise. In the case of Greece, the auditor variable was scored one if the company was audited by a SELE member and zero if otherwise.

---

[40] As indicated by most of the practitioners and academics interviewed.

6.5   DATA QUALITY

6.5.1   Introduction

The quality of data used in this disclosure study depends on the measuring instruments used to extract it from the CAFSs. Sekaran (1992) proposes that two main criteria for testing the goodness of measures are reliability and validity. Validity is concerned with whether the right thing is being measured, whereas reliability is concerned with the accuracy in measurement [that is, how well the concept under investigation is being measured (Sekaran, 1992)]. Sections 6.5.2 and 6.5.3 consider the reliability and validity of the measuring instruments used to score the Cypriot and Greek CAFSs.

6.5.2   Reliability of the Measuring Instruments

Sekaran (1992) points out that the *reliability* of the measuring instrument[41] is concerned with the precision of measurement and indicates the stability and consistency with which the concept is being measured. Stability refers to the ability of the measuring instrument to stably measure the concept of interest no matter when it is measured, the testing condition and the state of the respondents themselves. Consistency, on the other hand, is indicative of the homogeneity of the items in the measure that tap the construct (that is, how the items hang well together as a set). In the context of this study, reliability refers to the degree of precision in the disclosure scores when the sample CAFSs are scored by different scorers.

The main threats to reliability of the index scores derive from the possibility of an incorrect application of the scoring instrument and the existence of subjectivity in the

---

[41] Marston and Shrives (1991) note that the issue of index reliability in disclosure studies is not a major problem as in behavioural sciences because the subjects of investigation (the CAFSs) are constant over time and an important obstacle to repetition is overcome.

scoring procedure. Owusu–Ansah (1998) points out that in disclosure studies the practice has been the use of correlation analysis in assessing the reliability of the constructed measuring instruments. Following Owusu–Ansah (1998), the reliability of the measuring instruments used in this study was measured by selecting randomly the CAFSs of 15 Greek and 10 Cypriot companies (that were already scored by the researcher) and asking another investigator[42] to score them.

TABLE 6.3:
RELIABILITY ANALYSIS ON THE
DISCLOSURE MEASURING INSTRUMENTS

PANEL A: DESCRIPTIVE STATISTICS

	CYPRUS		GREECE	
	Mean (n=10)	Std. Deviation	Mean (n=15)	Std. Deviation
ACTUAL SCORES – Researcher – Independent Investigator	76.30 76.10	30.80 31.67	158.73 158.07	35.50 35.75
MAXIMUM SCORES – Researcher – Independent Investigator	88.50 88.50	30.95 30.74	179.47 179.53	40.35 40.65
RELATIVE SCORES – Researcher – Independent Investigator	85.12 84.48	5.58 5.94	88.58 88.16	2.31 2.89

[42] The investigator was Mr. Panicos Charalambous, a Chartered Certified Accountant with eight years experience in public practice, as well as nine years experience in academia.

Table 6.3 – continued

PANEL B: CORRELATIONS

		ACTUAL SCORES	MAXIMUM SCORES	RELATIVE SCORES
Cyprus	– Pearson test	0.999**	0.999**	0.917**
	– Spearman test	0.997**	1.000**	0.867**
Greece	– Pearson test	0.999**	0.999**	0.885**
	– Spearman test	0.998**	0.998**	0.875**

** = correlation is significant at the 1 per cent level (2–tailed)

Several correlation tests were then performed on the independent investigator's and the researcher's scores. The results, presented in Tables 8.4, indicate that the scores are in substantial agreement. The means and standard deviations of the actual, maximum and relative scores for both Cypriot and Greek companies are similar. The Pearson correlation coefficients for the actual, maximum and relative scores of the Cypriot companies are 0.999, 0.999 and 0.917, while the Spearman correlations are 0.997, 1.000 and 0.867 respectively. In the case of Greek companies, the Pearson correlation coefficients for actual, maximum and relative scores are 0.999, 0.999 and 0.885 and the Spearman correlation coefficients 0.998, 0.998 and 0.875 respectively. All the above correlations are significant at 1 per cent for two–tailed tests. Although it is difficult to state at which correlation level the reliability of the measuring instrument is considered to be satisfactory, Carmines and Zeller (1979) propose that as a general rule correlations should not be below 0.80. Hence, the correlation levels reported in Table 6.3 indicate substantial agreement in the disclosure scores and minimal subjectivity in the scoring process. In addition, the reliability levels reported in the study are higher than those reported in prior similar studies (e.g. Owusu–Ansah, 1998). Hence, it can be assumed that the measuring instruments are reliable.

6.5.3   Validity of the Measuring Instruments

Validity is concerned with whether the right thing is being measured. Sekaran (1992) groups validity tests under three broad headings: construct validity, content validity and criterion–related validity. Construct validity indicates whether the instrument taps the concept of interest as theorised (Sekaran, 1992) and is assessed through convergent and discriminant validity. The former is established when the scores obtained by two different instruments measuring the same concept are highly correlated and the latter is established when the scores of the variable of interest has a low correlation with the score of another variable that is supposed to be unrelated to it (Sekaran, 1992). Content validity, on the other hand, indicates whether the measure adequately measures the concept of interest (Sekaran, 1992) and is usually established when the items that are supposed to measure the concept are evaluated by a group of expert judges to ensure that they do measure the concepts (Kidder and Judd, 1986). Finally, criterion–related validity ". . . is at issue when the purpose is to use an instrument to estimate some form of behaviour that is external to the measuring instrument itself, the latter being referred to as the criterion" (Nunually, 1978, p.87; cited in Owusu–Ansah, 1998). Owusu–Ansah (1998) notes that criterion–related validity has been used extensively in psychology and education to analyse the validity of certain types of tests and selection procedures but it has a rather limited use in social sciences. This is because, in many cases, there are no criteria against which the measure can be evaluated (Carmines and Zeller, 1979). Thus, only construct and content validity are relevant to this study.

The construct and content validity of the measuring instruments were assessed via a three step process. First, the initial selection of mandatory information items and their breakdown into sub–elements was made after reviewing the relevant disclosure requirements and thoroughly inspecting the mandatory disclosure checklists of two

audit firms in each country. The scoring instruments were then despatched to four audit firms, requesting a review of the list to ensure that the items and their sub–elements accurately capture the extent of mandatory disclosure. The comments of the two responded firms were used to revise the scoring instruments[43], which were finally discussed extensively with the thesis supervisors to conclude on their appropriateness to measure what they purport to measure. It is, therefore, safe to assume that the measuring instruments are valid for the purpose of measuring the extent of corporate disclosure in Cyprus and Greece.

---

[43] The disclosure checklists of KPMG and Ernst and Young in both Cyprus and Greece were used. The scoring instruments designed were reviewed by Coopers and Lybrand (Cyprus), Price Waterhouse (Cyprus), Coopers and Lybrand (Greece) and Deloitte and Touche (Greece). The kind assistance of Mr. George Loizou, partner at Coopers and Lybrand (Cyprus), Mr. Christakis Santis, partner at Price Waterhouse (Cyprus), Mr. Dino Michalatos, partner at Coopers and Lybrand (Greece) and Mrs. Dina Karsas, principal manager at Deloitte and Touche (Greece) is gratefully acknowledged.

6.6   DATA ANALYSIS

6.6.1   General

In trying to understand the influence of corporate characteristics on Cypriot and Greek corporate disclosure, economic theory was used to specify a statistical model where disclosure is a function of a number of explanatory variables and an error term. The explanatory variables are the corporate characteristics that are assumed to influence corporate disclosure (company size, profitability, listing status etc.). The error term represents all those factors that affect disclosure and are not taken into account explicitly (e.g. qualifications of a company's principal accounting officer, socio–cultural variables etc.). The estimation of the parameters of the model and the testing of the relevant economic theories were made using hypothesis testing.

In the hypothesis testing process, the sample results have been used to make inferences about a wider hypothetical population of Cypriot public and Greek listed companies in 1996. This wider hypothetical population comprises the disclosure practices that could have occurred if the study could have been repeated under the same conditions but where the unmeasured factors influencing the error term had different values (for example, companies with the same corporate characteristics as the sample companies which had their CAFSs prepared under the responsibility of a different principal accounting officer[44]). It is to this hypothetical population that the statistical inferences (standard errors, significant levels etc.) apply. The statistical process was conducted using both bivariate and multivariate statistical analysis.

---

[44] Cox and Wermuth (1996) point out that the empirical interpretation of the probability distribution is often rather hypothetical. They note that "... the interpretation is that we imagine a population of values produced by repeating the investigation under the same conditions; probability then refers to frequency in that population, i.e. specifies what would happen in the long run. This motion and that of an underlying parameter thus aim to capture aspects of the system under study that are free from the accidental disturbances in the particular set of data under analysis" (p.13–14).

In addition to the above, Kish (1987) argues that a welcome and necessary use of research data is to use the sample results beyond the originally designated target population in order to make inferences about a wide variety of other inferential populations which differ from the target in kind, time etc. Thus, with the appropriate caution, an attempt has also been made to make theoretical (and not statistical) inferences about Cypriot and Greek corporate disclosure practices in general.

6.6.2 Bivariate Statistical Analysis

6.6.2.1 Introduction

Bivariate statistical methods examine the statistical relationship between two variables. Siegel and Castellan (1988) note that although alternative and valid bivariate statistical tests are available for a particular research hypothesis, it is necessary to employ some rationale for choosing among them. In this study, the selection of a particular bivariate statistical test to examine each hypothesised relationship was influenced by two factors. First, the nature of the hypothesis under consideration influences the *kind* of statistical test to use (that is, a test of difference or a test of association). Second, if the assumptions of a parametric test are satisfied (that is, whether the variables have been measured in at least an interval scale and the samples are drawn from populations whose variances are homogeneous and whose distributions are normal), then a relevant parametric test is preferred because it is more powerful (Siegel and Castellan, 1988); otherwise a non-parametric test should be used. Nevertheless, although the procedure mentioned above were followed in order to determine the appropriateness of parametric or non-parametric tests, all hypotheses were tested using both. The main reason for this strategy is the fact that the necessity of satisfying certain conditions before a parametric test can be employed have been seriously

questioned. For example, Lord (1953) suggests that parametric tests can also be used with ordinal scale variables.

6.6.2.2   Selection of Bivariate Tests

Hypotheses 1, 2, 3 and 4 require a test of association. Given that the variables are measured on an interval scale, the parametric *Pearson product – moment* and the non–parametric *Spearman rank order* correlation were used to assess the strength and direction of association between the disclosure scores and the selected corporate characteristics. The Pearson correlation assesses the linear correlation between each pair of variables, while the Spearman correlation assesses their monotonic correlation.

Hypotheses 5, 6 and 7 require a test of difference. Given that the variables tested (disclosure scores) relate to unrelated samples and are measured in non–categorical scale, the tests selected for Hypotheses 6 and 7 were the parametric *t–test* and the non–parametric *Wilcoxon–Mann–Whitney test* for two unrelated samples. Hypothesis 5 was tested using the parametric ANOVA *test* and the non–parametric *Kruskal–Wallis one way analysis of variance by ranks test* for three unrelated samples. The t–test determined whether the means of the two groups (listed versus unlisted and Big 5 versus non–Big 5 audited companies) differ, by comparing their means with the standard error of the difference in the means. In view of the fact that the method of computing the standard error of the difference in means depends on whether the variances of the two groups are equal or not, equality of variances was tested using the Levene test. Depending on the results, the t–value for pooled or separate variances was used. The Wilcoxon–Mann–Whitney test assessed the difference in mean ranks between the unrelated samples, in order to determine whether they have been drawn from the same population. It was preferred to the Kolmogorov–Smirnov test because it is one of the most powerful of the non–parametric tests and evidence seems to indicate that for large samples (more than 25) it is slightly more efficient

(Siegel and Castellan, 1988). The parametric one way ANOVA and the non-parametric Kruskal–Wallis tests were used to assess the means of the three industry groups by comparing the between–groups estimated variance with the within–groups estimated variance. Given that the assumption of equal variances is essential in an ANOVA test (Gaito, 1980), the equality of variances of the three groups was tested using the Levene test. In choosing among the non–parametric tests, the Kruskal–Wallis was preferred to the extension of the median test, because it is more efficient as it utilises more of the information in the observations; by converting scores into ranks, rather than simply dichotomising them as above or below the median (Siegel and Castellan, 1988). When the tests indicated that at least one of the groups was different from at least one of the others, a multiple comparisons test was used to determine where any differences lay. The Scheffé test was selected as it provides an exact value for groups of unequal size and is more conservative, in the sense that the probability of Type I error is less than the nominal significance level (Cramer, 1994).

However, the tests of association and difference outlined above have a main potential drawback. Even though they may reveal a significant association or difference between the variables, this does not necessarily imply causation. This is because of the possibility that the statistical relationship between the variables is influenced by one or more other interfering variables (for example, because of spurious correlation). Similarly the absence of a significant association or difference does not signify that there is no causal connection, because of the possibility that the relationship is suppressed by the influence of one or more other interfering variables. This potential problem was overcome when the relationship between corporate disclosure and the

selected corporate characteristics was examined by a multivariate statistical technique.[45]

6.6.3   Multivariate Statistical Analysis

6.6.3.1   Introduction

Bivariate statistical tests were used to analyse the data because it is common in disclosure studies to commence the data exploration using those methods in order to obtain a preliminary indication about the relationships between the variables under investigation. However, multivariate methods were also used for two reasons. First, some researchers opine that the use of bivariate analysis to study corporate disclosure might be unsuitable, as disclosure is a phenomenon that depends on the joint effect of many factors (Adhikari and Tondkar, 1992). Hence, the use of multivariate analysis constitutes a more appropriate method to assess the collective influence of the selected corporate characteristics on corporate disclosure. Second, multivariate analysis enables an examination of the relationship between corporate disclosure (dependent variable) and each of the corporate characteristics (independent variables), while simultaneously controlling for the effects of other independent variables in the model. This helps avoid any spurious relationships between the dependent and each of the independent variables that may be produced by a confounding factor.

---

[45] Although multiple regression does take account of some of the interfering variables (those that have been measured), it does not take account of all possible interfering variables (those that have not been measured). Hence, technically, the problem of interfering variables is only partially overcome. However, the existence of other variables that may affect the dependent and independent variables is a general problem encountered by all researchers. It was taken into account by: (1) the careful selection of the potential explanatory variables; and (2), the careful interpretation of the results of the multivariate statistical tests (especially as far as the ascription of causal connection between corporate disclosure and some corporate characteristics is concerned). These issues are also discussed in Chapter 10 (limitations of the study).

To examine the statistical relationship between the corporate disclosure scores and the selected corporate characteristics, a multiple regression model was developed for each country. A model is defined as a representation of a set of relationships that aids in understanding it, while its specification is the act of stating its propositions (Vogt, 1993). The regression model is specified as follows:

For Cypriot Companies:

$$Y_i = \alpha + \beta_1 \, assets_i + \beta_2 \, sales_i + \beta_3 \, profit \; margin_i + \beta_4 \, ROCE_i + \beta_5 \, current \; ratio_i + \beta_6 \, conglomerate_i +$$

$$\beta_7 \, manufacturing_i + \beta_8 \, other_i + \beta_9 \, listing_i + \beta_{10} \, audit_i + \varepsilon_i$$

(possibly after logarithmic or other transformation of some of the variables) (6.5)

where:

Y_i = *disclosure score of the ith sample company*

α = *the intercept of Equation (6.5) to be estimated*

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}$ = *the coefficients of the explanatory variables (with the possibility that some of these coefficients may turn out to be zero)*

ε_i = *random disturbance for the ith sample company.*

For Greek Companies:

$$Y_j = \alpha + \beta_1 \, assets_j + \beta_2 \, sales_j + \beta_3 \, capitalisation_j + \beta_4 \, age_j + \beta_5 \, profit \; margin_j + \beta_6 \, ROCE_j + \beta_7 \, current$$

$$ratio_j + \beta_8 \, conglomerate_j + \beta_9 \, manufacturing_j + \beta_{10} \, other_j + \beta_{11} \, listing_j + \beta_{12} \, audit_j + \varepsilon_j$$

(possibly after logarithmic or other transformation of some of the variables) (6.6)

where:

Y_j = *disclosure score of the jth sample company*

α = *the intercept of Equation (6.6) to be estimated*

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}, \beta_{12}$ = *the coefficients of the explanatory variables (with the possibility that some of these coefficients may turn out to be zero)*

ε_j = *random disturbance for the jth sample company.*

The dependent variable is the relative disclosure score computed for each of the sample companies. The intercept has been included in order to capture the average effects (on corporate disclosure) of those variables excluded from the model, and is assumed to be constant across all the sample companies. The independent variables of the model are all those corporate attributes that have been identified as possible explanatory variables of corporate disclosure. The disturbance term[46] represents the net influence of those variables that may have an influence on corporate disclosure but have not been measured statistically (e.g. socio–cultural factors).

Kennedy (1996) stresses that an appropriate methodology should be employed when specifying an empirical model. Although the question as to which specification methodology is superior is an unresolved issue, the specification methodology used in this study is the Hendry's (or London School of Economics) approach to economic modelling, which is known as "the general to simple" model building approach. It begins with a model with several regressors and then testing is undertaken in order to simplify this general specification and whittle the model down to contain only the important variables. Then the model is subjected to several diagnostic tests and, if needed, the model is respecified. Although this methodology has been developed to deal mainly with time series data, its general principles equally apply to other contexts (Ramanathan, 1995). It was preferred for two reasons. First, there is no theoretical or other reason to suggest that a particular simple model is the correct one to explain the variations in Cypriot corporate disclosure practices; hence, "testing up" has no appealing preference in this case. Second, it has been used in similar disclosure studies with satisfactory results (e.g. Owusu–Ansah, 1998).

---

[46] Kennedy (1996) notes that the disturbance term is very important in econometrics. He points out that a major distinction between economists and econometricians is the latter's concern with the disturbance terms. This is because their nature determines the success of the econometric methods used to estimate the parameters of a model.

6.6.3.2   Estimating the Parameters of the Regression Models

Although there are several methods to estimate the regression function, the parameters of Equations (6.5) and (6.6) were estimated with the OLS procedure. This estimation procedure was preferred for several reasons. First, its computational procedure is fairly simple to understand and operate (Kennedy, 1996). Second, it has been used in a wide range of economic relationship studies with satisfactory results (Owusu–Ansah, 1998). Third, it is an essential component of most other econometric techniques (Koutsoyiannis, 1977). Finally, under certain assumptions the OLS procedure has some attractive statistical properties that have made it one of the most powerful and popular regression estimating methods. Given the assumptions of the classical linear regression model (CLRM), the least–squares estimators are the *best linear unbiased estimators* (BLUE) of the true value of the parameters (Gujarati, 1995). An estimator ($\hat{\beta}$) is an *unbiased* estimator of the true (β), if the mean of its sampling distribution is equal to (β) (that is, if we undertake repeated sampling an infinite number of times, we would get the correct estimate on the average; Kennedy, 1996, p.14). Also, the OLS estimators are a *linear* function of the observations on the dependent variable. This property reduces the task of finding the efficient estimator to mathematically manageable proportions since in many cases it is impossible to determine which of all unbiased estimators has the smallest variance (Kennedy, 1996, p.16). However, it is usually the case that whenever one unbiased estimator can be found, a large number of other unbiased estimators exists. In this case, OLS gives the linear *unbiased* estimator with the smallest variance. This is called the *best linear unbiased* (or most efficient) estimator among all unbiased estimators.

However, in order for OLS estimators to have these desirable properties the regression model must satisfy certain assumptions. First, the dependent variable must be a linear function of a specific set of independent variables plus a disturbance (that is, the model should be linear in parameters). Second, the expected value of the disturbances must

be zero. Third, the disturbances must be spherical [that is, they must have uniform variance (homoscedastic)] and must not be correlated with one another (have no autocorrelation). Fourth, the observations on the independent variables must be considered to be fixed in repeated sampling (that is, they must be non–stochastic)[47]. Fifth, there must be no perfect linear relationship between the independent variables (that is, there should be no perfect multicollinearity). A sixth assumption is usually added that renders the CLRM a normal linear regression model. This is the assumption that the disturbances are normally distributed. The addition of this assumption makes an OLS estimate Minimum Variance Unbiased Estimator (MVUE), in that it has minimum variance in the entire class of unbiased estimators, whether linear or not. This property is desirable if one wants to carry out hypothesis testing and draw influences about the true population values (Gujarati, 1995).

The second assumption required to be satisfied by the regression model (expected value of disturbances should be zero) is more a matter of definition; for if the expected value of the disturbance is not zero, then its value can be included in the constant term. Thus, it is regarded as being satisfied. The problem of autocorrelation is not considered to be a major threat to this study, because it is reasonable to assume that the observations in the dependent variable are not ordered in a particular way. Additionally, Gujarati (1995) states that autocorrelation is more common to time series than cross–sectional data. Finally, the assumption that the regressors are distributed independently of (or are uncorrelated with) the disturbances is often taken for granted in the disclosure literature, as it is reasonable to assume that there is no two–way influence among the disclosure scores and the explanatory variables. For the remaining assumptions specific diagnostic tests were carried out on the regression results.

---

[47] In this study certain regressors (such as sales and assets) cannot be regarded as truly fixed, in the sense that their values could have been different if this study was repeated under different conditions. In such a case, Gujarati (1995) suggests that if we assume that the regressors, although random, are distributed independently of (or at least are uncorrelated with) the disturbances, then for all practical purposes we can continue to operate as if the regressors were non–stochastic.

6.7   SUMMARY

This chapter has presented the basic aspects of the research design and methodology, with the exception of data analysis and interpretation which is undertaken in the next two chapters. Particular emphasis has been placed on the most important elements of data collection and measurement techniques. Data has been collected by contacting all elements of the population by post. A combination of follow up letters and telephone inquiries, as well as an analysis of the non-respondents, led to the conclusion that the samples can be considered representative of the targeted populations. Hence, by analysing the sample subjects, generalisations to the population elements can be made. Adequate disclosure is measured using Cerf's (1961) index methodology which is currently the most appropriate measurement tool for disclosure studies. The selected corporate characteristics are measured by operationalising their presumed indicants and assigning them suitable numerals to facilitate their statistical analysis. In addition, appropriate tests have confirmed that the measuring instruments used to measure the extent of corporate disclosure are valid and reliable. Finally, an overview was given of the bivariate and multivariate techniques that were used to analyse the financial disclose practices of the sample companies.

CHAPTER 7

FINANCIAL DISCLOSURE PRACTICES OF CYPRICT COMPANIES: STATISTICAL ANALYSES AND RESULTS

7.1   INTRODUCTION

The first three research questions, as posed in Chapter 1, were:

(1) What is the extent of mandatory information disclosure in the CAFSs of Cypriot and Greek companies?

(2) Is there any association between the extent of mandatory disclosure by Cypriot and Greek companies and each of a number of selected corporate characteristics?

(3) Can the variations in the extent of corporate mandatory disclosure practices of Cypriot and Greek companies be explained by the selected corporate characteristics together?

Chapter 7 reports and discusses the statistical methods employed to address these research questions relating to Cypriot companies. Research question one has been addressed by measuring the extent of Cypriot corporate disclosure using the index methodology. The testable hypotheses for research questions two and three have been addressed using both bivariate and multivariate statistical methods.

7.2   DESCRIPTIVE STATISTICS

Section 7.2 reports and discusses the results of the statistical methods employed to address research question one, that is, to examine the extensiveness of mandatory information disclosure in the CAFSs of Cypriot companies. The extent of disclosure is measured by a disclosure measuring instrument whose contents, development, reliability and validity were discussed in Chapter 6. An attempt is also made to judge the extensiveness of Cypriot corporate disclosure in the context of other mandatory disclosure studies reported in the literature. In this respect, disclosure extensiveness is not judged using a cut off disclosure score (above which disclosure is deemed to be adequate and below which inadequate), but by comparing the disclosure scores of Cypriot companies with the scores of other companies reported in previous mandatory disclosure studies. However, this comparison should be treated with caution as the comparisons are made with studies that: (1) examined companies operating in different countries and, possibly, within different social, political, economic and institutional environments; (2) have been carried out in different time periods; and (3), are probably inconsistent with this study in terms of sample type, research method and variables analysed. Nevertheless, this limitation and concern is inherent in any attempt to compare the results of different disclosure studies. Such comparisons are widespread in the literature when researchers evaluate the implications of their findings (e.g. Wallace and Naser, 1995; Owusu–Ansah, 1998), or summarise the results of previous studies (e.g. Marston and Shrives, 1995). Hence, provided such a comparison is made with caution, it will give a useful insight into the Cypriot and Greek corporate disclosure practices.

Table 7.1 reports the descriptive statistics for the relative disclosure scores and the selected corporate characteristics of Cypriot companies. The table shows that the range of the disclosure index varies from about 66 to 97 per cent with the mean disclosure score being 84.7 per cent. The disclosure practices of the Cypriot sample

TABLE 7.1:

CYPRUS: DESCRIPTIVE STATISTICS FOR THE RELATIVE DISCLOSURE SCORES AND THE SELECTED CORPORATE CHARACTERISTICS[48]

PANEL A: CONTINUOUS VARIABLES: UNTRANSFORMED DATA (n = 50)

VARIABLE	CODE–NAME	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM	SKEWNESS	KURTOSIS
Relative Score (%)	RELAT	84.7	7.1	66.20	97.0	-0.4	-0.3
Assets (CYP m)	ASSET	19.7	31.6	0.03	172.0	3.3	12.6
Sales (CYP m)	SALES	9.7	20.8	0.01	124.5	4.0	19.2
Profit Margin (%)	PRMAR	-44.8	222.4	-1249.10	83.8	-4.4	19.8
Return on Capital Employed (%)	ROCE	1.2	7.9	-23.60	16.2	-1.2	1.9
Current Ratio (times)	CURRE	3.9	10.7	0.12	70.3	5.4	31.7

PANEL B: CONTINUOUS VARIABLES: TRANSFORMED DATA (n = 50)

VARIABLE	CODE–NAME	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM	SKEWNESS	KURTOSIS
Natural Log of Assets	LGASS	1.8	1.9	-3.6	5.2	-0.8	0.7
Natural Log of Sales	LGSAL	0.5	2.2	-4.4	4.8	-0.5	-0.1
Natural Log of Current Ratio	LGCUR	0.3	1.2	-2.1	4.3	1.0	1.9

PANEL C: CATEGORICAL VARIABLES

CATEGORY	NUMBER OF COMPANIES	PROPORTION OF SAMPLE (%)	RELATIVE SCORES MEAN	RELATIVE SCORES STD. DEVIATION
INDUSTRY GROUP:				
Conglomerates	7	14	93.1	2.9
Manufacturing	13	26	84.5	5.6
Others	30	60	82.8	7.0
All Companies	50	100	84.7	7.1
LISTING STATUS:				
Listed	27	54	88.6	4.6
Unlisted	23	46	80.1	6.7
All Companies	50	100	84.7	7.1
AUDITOR TYPE:				
Big 5	42	84	86.1	6.5
Non–Big 5	8	16	77.1	4.8
All Companies	50	100	84.7	7.1

---

[48] All statistical tests and procedures reported in the thesis have been made using the statistical package SPSS 10.1.

198

companies, on the whole, appear to be extensive, as the minimum, maximum and mean disclosure scores reported compare favourably with those reported in some prior mandatory disclosure studies on both developed countries (e.g. Wallace et al., 1994) and developing countries (e.g. Patton and Zelenka, 1997 and Owusu–Ansah, 1998). For example, Wallace et al.'s (1994) study for Spanish companies reported (for the relative disclosure scores) a minimum score of 29 per cent, a maximum score of 80 per cent and a mean disclosure score of 59.3 per cent. The corresponding scores reported by Wallace and Naser (1995) for Hong Kong were 55 per cent, 87 per cent and 73 per cent; by Patton and Zelenka (1997) for the Czech Republic were 34 per cent, 80 per cent and 56 per cent; and by Owusu–Ansah (1998) for Zimbabwe were 63 per cent, 85 per cent and 74.4 per cent. Although this comparison should be treated with caution (for the reasons stated earlier), it does indicate that Cypriot companies disclose a reasonably high percentage of information items applicable to them.

The measures for skewness for some continuous variables suggest that their distributions are skewed. Histograms of all continuous variables were inspected which confirmed this suggestion. In order to reduce the skewness, the variables on assets, sales and current ratio were transformed using the natural logarithmic conversion of the original figures. Given that the standard methods of transformation (powers and logs) apply to positive values, the data for profit margin and ROCE were kept in their untransformed form. This is because they included some negative values and no standard method of transformation could have given meaningful results. Because a logarithmic transformation is monotonic, it changes the scale on which a variable is measured (and hence can reduce the skewness of a data set), but does not change the direction of the relationship between the dependent and the independent variable. A visual inspection of the histograms after the transformations revealed that the

skewness of the assets, sales and current ratio variables has been reduced.[49] The data for profit margin included three extreme negative values. The companies with these scores had exceptionally negative profit margins because of a significant downsizing in their operations that had resulted in insignificant sales for the year and huge losses (due to fixed costs). When the negative values were removed from the data set, the distribution of profit margin was not particularly skewed (skewness = 1.15). However, in view of the low number of observations it was decided to keep the data for the three companies in the distribution.

One of the bivariate methods that was used to assess the strength of linear association between the relative scores and the continuous independent variables was the Pearson correlation (Section 7.3). As the Pearson correlation coefficient measures the strength of the linear association between two variables, several scatterplots were plotted in order to check the linearity of the relationships between each of the continuous independent variables and the relative disclosure scores. The scatterplots disclosed that the log transformations had not only reduced the skewness of assets, sales and current ratio but had also made their relationships with the relative scores more linear. This is evidenced by the fact that the transformations have made the overall shape of the distribution of points more elliptical. The scatterplots also revealed that the relationship of the relative scores with profit margin was not linear, while in the case of relative scores with ROCE no clear relationship was evident (Figure 7.1). As noted earlier the data sets for those variables included some negative values and no method of transformation could have improved their skewness (or linearity). It was, therefore, decided to keep the data for profit margin and ROCE in its original form.

---

[49] A Shapiro–Wilks test showed that the data for the relative disclosure scores, log assets and log sales conformed to a normal distribution. Test statistics and significance levels were: 0.969 and p=0.39 for the relative scores, 0.948 and p=0.057 for log assets and 0.964 and p=0.280 for log sales.

FIGURE 7.1:
CYPRUS: SCATTERPLOTS OF RELATIVE SCORES WITH THE CONTINUOUS EXPLANATORY VARIABLES

LOG OF SALES

LOG OF ASSETS

Figure 7.1 – continued

LOG OF CURRENT RATIO

PROFIT MARGIN
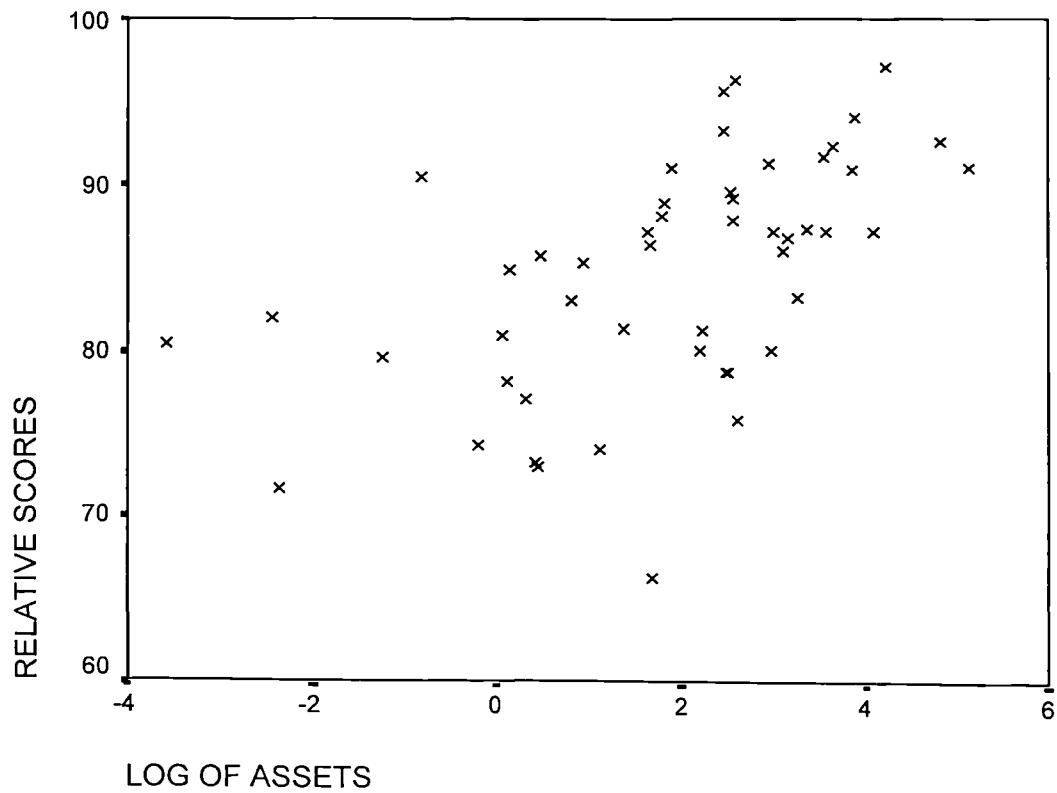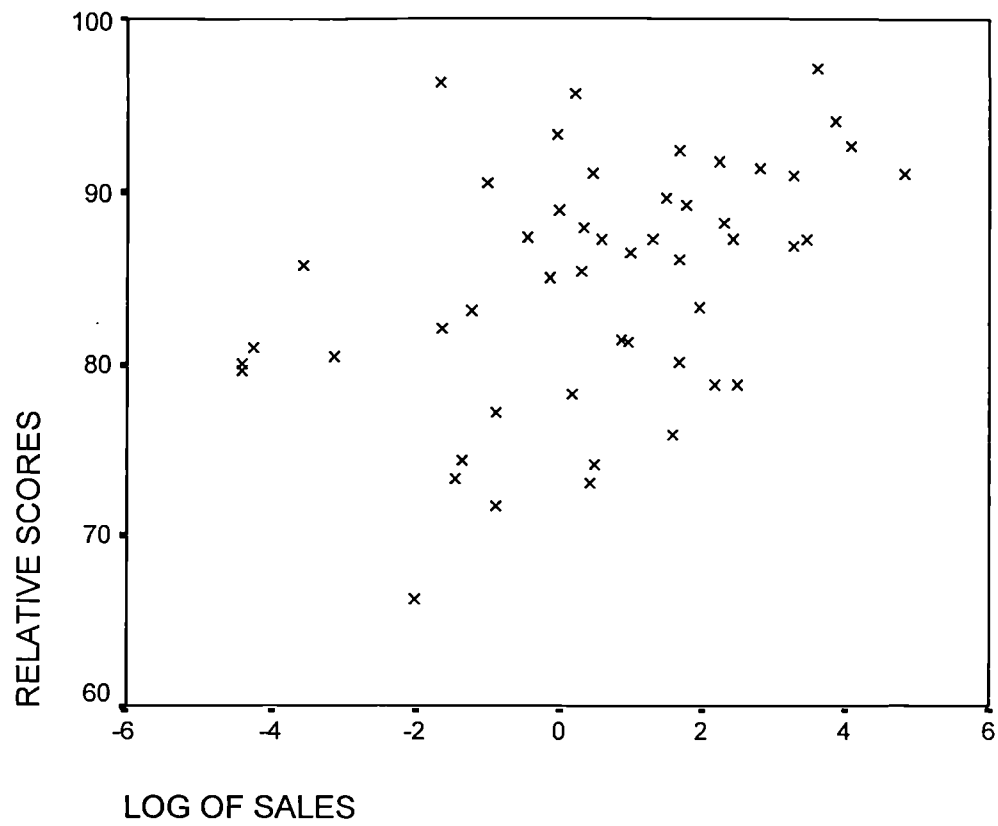
Figure 7.1 – continued
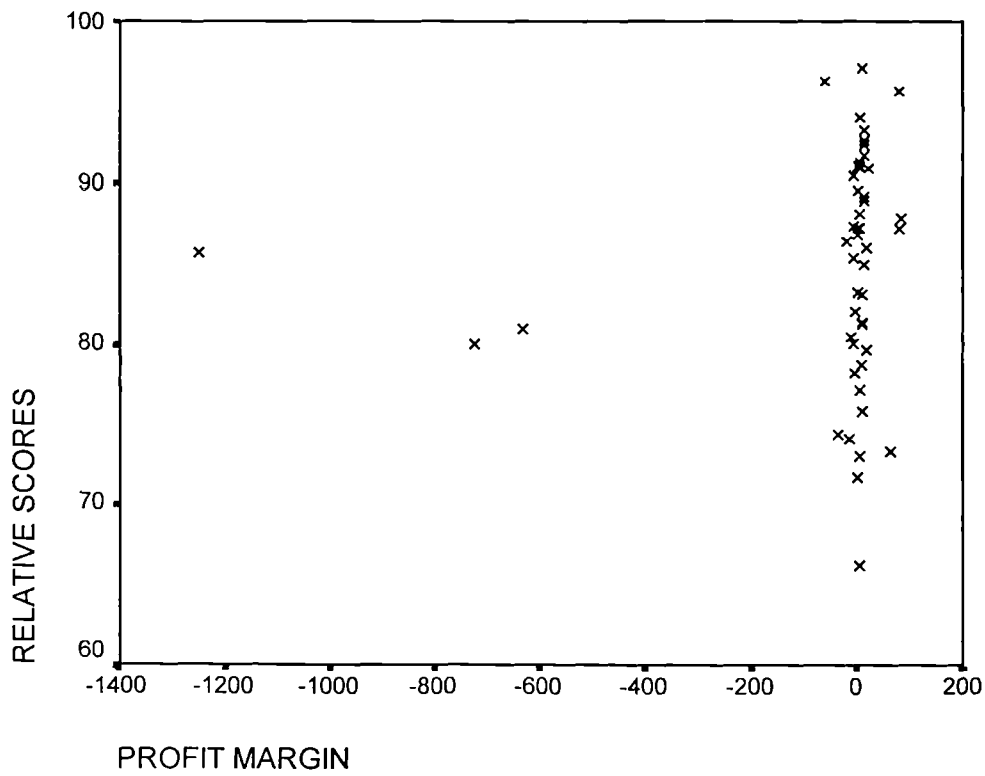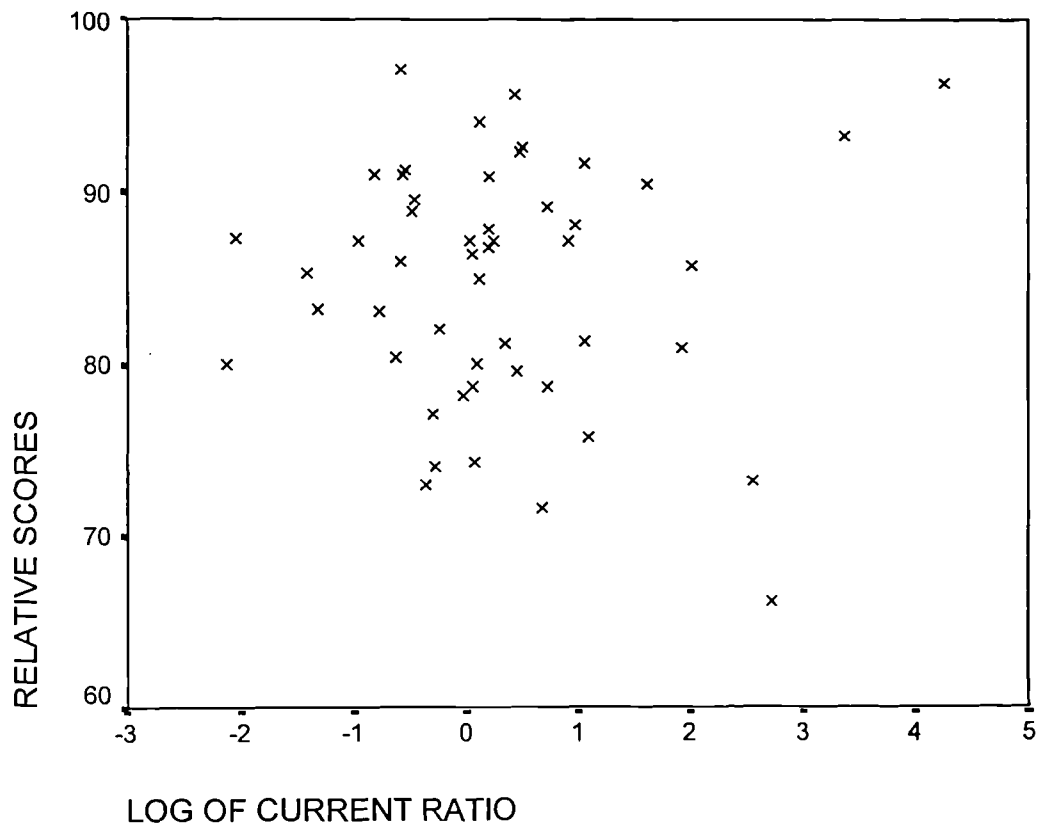
RETURN ON CAPITAL EMPLOYED
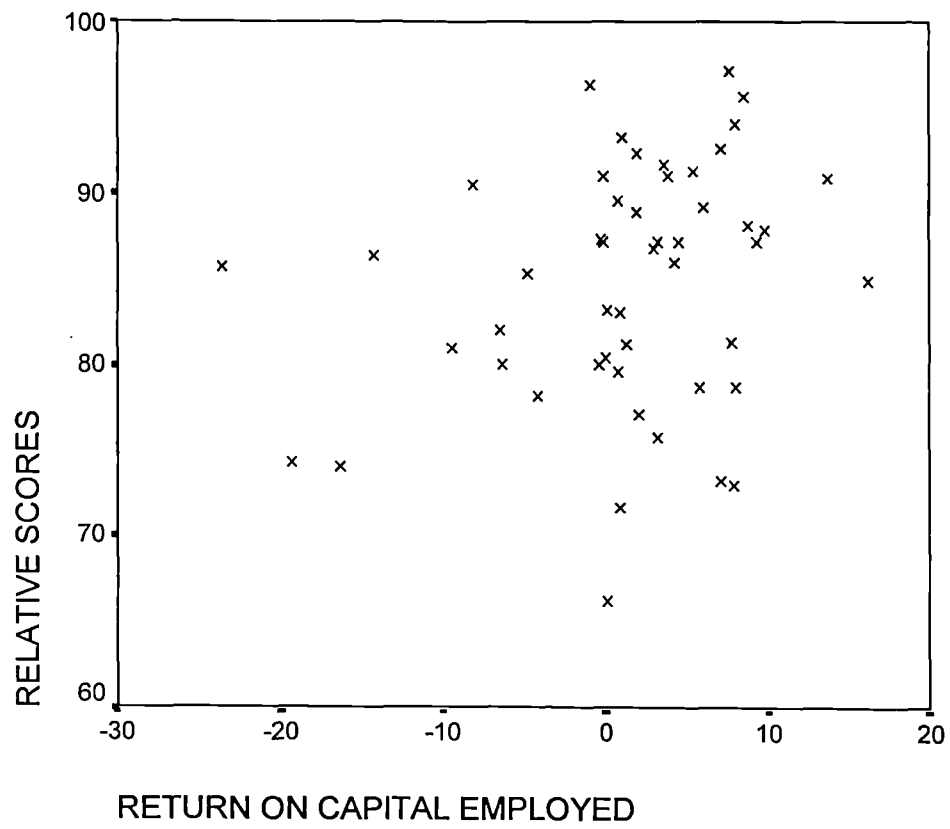
7.3 BIVARIATE STATISTICAL TESTS AND INTERPRETATION

7.3.1 Introduction

Section 7.3 answers the second research question posed for Cypriot companies. Specifically, it reports the results of the bivariate statistical methods employed to investigate whether there is an association between the extent of disclosure by Cypriot companies and each of a number of selected corporate characteristics. Section 7.3 also interprets the results in the context of the testable hypotheses in Chapter 5 for research question two and compares the results of the study with some previous disclosure studies.

7.3.2 Company Size Hypothesis

The company size hypothesis states that:

H1: *There is an association between a company's size and the extent of its disclosure practice.*

The appropriateness of a parametric test was evaluated by testing the normality and homogeneity of variances assumptions. Normality was tested by running a regression of the relative scores on each of log assets and log sales and inspecting the normal p–p plots of the residuals. No significant departures from normality were found. Additionally, a scatterplot of standardised residuals against the predicted values revealed that the spread of the residuals does not change with an increase in the predicted values, suggesting that the assumption of homogeneous variances is reasonably safe. These findings suggest that a parametric test may be more

appropriate. However, as pointed out earlier, the hypothesis was examined with both the parametric Pearson and the non–parametric Spearman correlation tests.

The results of the correlation tests are reported in Table 7.2. The Pearson and Spearman correlations are positive and significant at the 1 per cent level, suggesting that the corporate disclosure practices of Cypriot companies are positively associated with their size. Thus, Hypothesis 1 is supported and the results of the tests are consistent with the propositions of disclosure, agency and political cost theories, that large companies are more likely to disclose more extensive information. These results are in agreement with previous findings reported in the literature such as Cerf (1961) and Cooke (1989).

TABLE 7.2:
RESULTS OF TESTS OF ASSOCIATION BETWEEN CYPRIOT CORPORATE DISCLOSURE PRACTICES AND SIZE

CORRELATIONS	PARAMETRIC TESTS		NON–PARAMETRIC TESTS	
	Pearson Correlation	Significance (2–tailed)	Spearman Correlation	Significance (2–tailed)
Log Assets with Relative Score	0.538*	0.000	0.604*	0.000
Log Sales with Relative Score	0.432*	0.001	0.439*	0.001

* = correlation is significant at the 0.01 level (2–tailed).

7.3.3 Company Profitability Hypothesis[50]

The company profitability hypothesis states that:

H3:   *There is an association between a company's profitability and the extent*

of its disclosure practice.

Profitability was measured by ROCE and profit margin. A normal p–p plot and a scatterplot of standardised residuals against the predicted values revealed that the assumptions of normality and homogeneity of variances were reasonably safe for ROCE. In the case of profit margin there was some evidence of heteroscedasticity. Nevertheless, as in the case of company size, this hypothesis was examined with both the Pearson and the Spearman correlation tests.

The results of both tests are reported in Table 7.3. The correlation coefficients are not significant at the 5 per cent level and, thus, Hypothesis H3 is not supported. The result suggests that profitability is not related to the corporate disclosure practices of Cypriot companies. However, the presence of some outliers in the data set of profit margin suggests that the actual relationship of relative scores with profit margin might be different from the one reported because of the influence of those outliers. The effect of the outliers was examined by removing them from the data set and re-calculating the correlation coefficients. The correlations were still low and insignificant.[51] Hence, Hypothesis 3 is not supported and the result is not in line with the predictions of agency, signalling and political cost theories, which can be used to hypothesise either for a positive or a negative association between corporate

---

[50] As explained in Chapter 6 there is no test of Hypothesis 2 for Cypriot companies because it was not possible to measure the age of all Cypriot companies in the sample.

[51] The Pearson correlation was 0.095 and p=0.527 while the Spearman correlation was 0.219 with p=0.139.

TABLE 7.3: RESULTS OF TESTS OF ASSOCIATION BETWEEN CYPRIOT CORPORATE DISCLOSURE PRACTICES AND PROFITABILITY				
CORRELATIONS	**PARAMETRIC TESTS**		**NON–PARAMETRIC TESTS**	
	Pearson Correlation	**Significance (2–tailed)**	**Spearman Correlation**	**Significance (2–tailed)**
ROCE with Relative Score	0.255	0.074	0.269	0.059
Profit Margin with Relative Score	0.070	0.628	0.249	0.082

profitability and disclosure. It should be noted that although the bivariate test reported here revealed that ROCE is not significantly related to the extent of Cypriot corporate disclosure, the multivariate analysis reported in Section 7.4.4 revealed that ROCE has a significant positive influence. This conflicting result is discussed in Section 7.4.4. The evidence reported in this section (that ROCE is not significantly related to the extent of corporate disclosure) is not in line with the conclusions of Cerf (1961) and Singhvi (1967), but is consistent with that of Wallace et al. (1994).

7.3.4 Company Liquidity Hypothesis

The company liquidity hypothesis states that:

H4: *There is an association between a company's liquidity and the extent of its disclosure practice.*

Although a normal p-p plot showed that the assumption of normality was reasonably safe, a scatterplot of standardised residuals against standardised predicted values revealed a non-homogeneity in the variances. This result suggests that a non-parametric test may be more appropriate. However, the hypothesis was also tested using both the Pearson and the Spearman correlation tests.

Table 7.4 shows that both the Pearson and the Spearman correlation coefficients are not significant. Hence, Hypothesis H4 is not supported and the result suggests that there is no association between liquidity and disclosure. This result is not in line with the predictions of either signalling theory, which hypothesises for a negative relationship between liquidity and corporate disclosure, or with the capital need theory, that hypothesises for a positive relationship. This result is not in line with that reported by Wallace et al. (1994) but corroborates that of Belkaoui and Kahl (1978).

TABLE 7.4:
RESULTS OF TESTS OF ASSOCIATION BETWEEN CYPRIOT CORPORATE DISCLOSURE PRACTICES AND LIQUIDITY

CORRELATIONS	PARAMETRIC TESTS		NON-PARAMETRIC TESTS	
	Pearson Correlation	Significance (2-tailed)	Spearman Correlation	Significance (2-tailed)
Log Current Ratio with Relative Score	-0.009	0.951	0.015	0.917

7.3.5   Industry–type Hypothesis

The industry–type hypothesis states that:

H5:   *The extent of a company's disclosure practice varies depending on the*
industry to which it belongs (whether it is a manufacturing, conglomerate
or other).

The Shapiro–Wilks and the Levene's test confirmed that data sets of the three industrial groups are drawn from the populations whose distributions are normal and whose variances are equal.[52] Although this suggests that a parametric test might have been more appropriate, the hypothesis was examined with both the parametric one way ANOVA and the non–parametric Kruskal–Wallis tests.

The F statistic for the ANOVA test and the chi–square statistic for the Kruskal–Wallis test are significant at the 1 per cent level. They suggest that there are significant statistical differences in the mean disclosure practices of Cypriot companies in the three industrial groups. Nevertheless, further analysis is necessary to localise the differences among the group means. Kinnear and Gray (1996) argue that the question of exactly how one should proceed to further analysis after the F test in ANOVA is not a simple one. They suggest that different *a priori* and *a posteriori* tests can be used to localise the differences. However, the use of any of these techniques depends on whether the hypothesis being tested is directional or non–directional. Given that Hypothesis 5 is non–directional, the *a posteriori* technique (Scheffé test) was used. The Scheffé test was selected as it is more conservative, that is the

---

[52] The Shapiro–Wilk statistic is 0.951 for conglomerates, 0.884 for manufacturing and 0.978 for others; the respective significance levels are 0.742, 0.08 and 0.768. The Levene statistic is 2.4288 and p=0.0990.

TABLE 7.5:
RESULTS OF TESTS FOR EQUALITY OF MEANS OF CYPRIOT CORPORATE DISCLOSURE PRACTICES BY INDUSTRY TYPE

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	ᶜtd. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Conglomerates	7	93.1	2.89	1.09	90.4	95.8
Manufacturing	13	84.5	5.64	1.56	81.1	87.9
Others	30	82.8	6.99	1.28	80.2	85.4
Total	50	84.7	7.07	1.00	82.7	86.7

PANEL B: ONE WAY ANOVA TEST

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic	Significance (2–tailed)
Between Groups	599.961	2	299.980		
Within Groups	1847.008	47	39.298		
Total	2446.969	49		7.633	0.001

PANEL C: KRUSKAL–WALLIS TEST

Group	Number of Companies	Mean Rank	Chi–Square	Degrees of Freedom	Asymptotic Significance (2–tailed)
Conglomerates	7	44.21			
Manufacturing	13	24.27			
Others	30	21.67			
Total	50		13.707	2	0.001

probability of Type I error is less than the nominal significance level (Cramer, 1994). The results, reported in Table 7.6, show that the mean scores of the conglomerate group is significantly higher than that of the manufacturing and the other industrial groups. Hence, there is evidence to support the proposition that industry – specific factors, such as the complexity and nature of operations of the conglomerate industry, usually lead companies in that industrial group to disclose more detailed information. These results are consistent with those of Wallace and Naser (1995), but not with those of Wallace (1987).

TABLE 7.6:
RESULTS OF SCHEFFÉ MULTIPLE COMPARISONS TEST FOR THE CYPRIOT INDUSTRIAL GROUPS

First Group	Second Group	Mean Difference Between Groups	Std. Error	Significance (2–tailed)
Conglomerates	Manufacturing Others	8.5723* 10.2767*	2.939 2.631	0.020 0.001
Manufacturing	Conglomerates Others	-8.5723* 1.7044	2.939 2.082	0.020 0.717
Others	Conglomerates Manufacturing	-10.2767* -1.7044	2.631 2.082	0.001 0.717

* = The mean difference is significant at the 0.05 level.

7.3.6 Listing Status Hypothesis

The listing status hypothesis states that:

H6(C): *The extent of disclosure of a Cypriot listed company is greater than that of an unlisted one.*

Although the Shapiro–Wilks and the Levene test confirmed the normality and homogeneity of variances assumptions[53], both the parametric t and the non–parametric Mann–Whitney U tests were used to examine this hypothesis.

Table 7.7 shows that the t statistic is significant, suggesting that the mean disclosure indexes of listed companies is significantly higher than those of unlisted ones. This result is also confirmed by the non–parametric Mann–Whitney U test. Hence, Hypothesis H6(C) is supported and the result is consistent with the predictions of agency, capital–need and disclosure costs theories, that listed companies will disclose

TABLE 7.7:
RESULTS OF TESTS OF DIFFERENCE BETWEEN THE DISCLOSURE
PRACTICES OF CYPRIOT LISTED AND
UNLISTED COMPANIES

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	Std. Deviation	Std. Error of Mean
Unlisted Companies	23	80.1	6.73	1.40
Listed Companies	27	88.6	4.64	0.89

PANEL B: T-TEST

Test	t–value	Degrees of Freedom	Significance (1–tailed)	Mean Difference	Std. Error of Difference
Equality of Means	-5.23	48	0.000	-8.459	1.617

[53] The Shapiro–Wilks statistic is 0.9768 for the listed and 0.9776 for the unlisted group, with the respective significance levels being 0.7766 and 0.8280. The Levene statistic is 2.7362 and p=0.1046.

212

Table 7.7 – continued

PANEL C: MANN–WHITNEY U TEST

Group	Number of Companies	Mean Rank	Sum of Ranks	Z Statistic	Significance (1–tailed)
Unlisted Companies	23	16.17	372.00	-4.176	0.000
Listed Companies	27	33.44	903.00		

more extensively than unlisted companies (from among those information items that are not unique only to listed companies). The results reported here are consistent with those of Firth (1979) and Wallace et al. (1994), but not with those of Buzby (1972).

7.3.7   Auditor–type Hypothesis

The auditor–type hypothesis states that:

> *H7(C)*:   *The extent of disclosure of a Cypriot Big 5 audited company is greater than that of non–Big 5 audited one.*

Even though the Levene test confirmed the homogeneity of variances assumption, the Shapiro–Wilks test showed that the normality assumption cannot be maintained.[54] This suggests that a non–parametric test might have been more appropriate. However, the hypothesis was tested using both the parametric t and the non–parametric Mann–Whitney tests.

---

[54] The Shapiro–Wilks statistic is 0.9420 for the Big 5 audited and 0.7947 for the non–Big 5 audited groups, with the respective significant levels being 0.0499 and 0.0325. The Levene statistic is 1.734 and p=0.194.

Table 7.8 shows that, despite the non–normality of the data sets, the parametric and the non–parametric tests give very similar results. The t–statistic is significant at the 1 per cent level, suggesting that the mean disclosure indexes of companies audited by Big 5 firms is significantly higher than those audited by non–Big 5 firms. This result is also confirmed by the non–parametric Mann–Whitney U test. Thus, Hypothesis H7(C) is supported and the result lends support to the propositions derived from the collateral aspect, agency and economic dependency theories, that companies audited by Big 5 audit firms will disclose more extensively. The results are consistent with those reported by Ahmed and Nicholls (1994) but not with those of Raffournier (1995).

TABLE 7.8:
**RESULTS OF TESTS OF DIFFERENCE BETWEEN THE DISCLOSURE
PRACTICES OF CYPRIOT COMPANIES AUDITED BY BIG 5 AND
NON–BIG 5 AUDIT FIRMS**

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	Std. Deviation	Std. Error of Mean
Companies Audited by Non–Big 5 Firms	8	77.13	4.81	1.70
Companies Audited by Big 5 Firms	42	86.13	6.52	1.01

PANEL B: T-TEST

Test	t–value	Degrees of Freedom	Significance (1–tailed)	Mean Difference	Std. Error of Difference
Equality of Means	-3.706	48	0.001	-9.000	2.4290

Table 7.8 – continued

Group	Number of Companies	Mean Rank	Sum of Ranks	Z Statistic	Significance (1–tailed)
Companies Audited by Non–Big 5 firms	8	10.00	80.00	-3.282	0.000
Companies Audited by Big 5 Firms	42	28.45	1195.00		

215

7.4 MULTIVARIATE STATISTICAL TESTS AND INTERPRETATION

7.4.1 Introduction

Section 7.4 answers the third research question posed for Cypriot companies. Specifically, it reports the results of the multivariate statistical methods employed to investigate whether the variations in the extent of corporate disclosure practices of Cypriot companies can be explained by the selected corporate characteristics together. This is done through the specification of a multivariate regression model that seeks to explain the variations in the extensiveness of disclosure by the Cypriot sample companies. Section 7.4 also interprets the results of the multivariate statistical tests and evaluates the robustness of the regression model developed.

7.4.2 Correlations Between the Independent Variables

The parameters of the regression model developed in Section 7.4 were estimated using the OLS procedure. In order, however, for OLS estimators to be best linear unbiased estimators, certain assumptions must be satisfied. One of these assumptions is that there must be no perfect linear relationship between the independent variables (no multicollinearity). This assumption is examined in this section.

A popular method for the detection of multicollinearity in regression analysis is the existence of high pairwise correlations among the independent variables. A value of about 0.80 (in absolute value) of one of the pairwise correlations indicates a potential for a multicollinearity problem (Kennedy, 1996). In order to detect any multicollineary problem, the Pearson product–moment correlation matrix between all pairs of the independent variables was examined (Table 7.9). Although no pairwise correlation

216

TABLE 7.9:
CYPRUS: PEARSON PAIRWISE CORRELATIONS BETWEEN THE INDEPENDENT VARIABLES

	LGASS	LGSAL	PRMAR	ROCE	LGCUR	CONGL	MANUF	OTHER	LISTI	AUDIT
LGASS	1.000	0.705**	0.120	0.371**	-0.111	0.315*	0.128	-0.337	0.390**	0.323*
LGSAL	0.705**	1.000	0.497**	0.459**	-0.203	0.290*	0.348*	-0.517**	0.217	0.138
PRMAR	0.120	0.497**	1.000	0.515**	-0.106	0.078	0.128	-0.170	-0.089	-0.093
ROCE	0.371**	0.459**	0.515**	1.000	-0.053	0.184	0.068	-0.191	-0.048	0.006
LGCUR	-0.111	-0.203	-0.106	-0.053	1.000	0.086	0.083	-0.135	0.004	-0.047
CONGL	0.315*	0.290*	0.078	0.184	0.086	1.000	-0.239	-0.494**	0.025	0.176
MANUF	0.128	0.348*	0.128	0.068	0.083	-0.239	1.000	-0.726**	-0.002	-0.239
OTHER	-0.337	-0.517**	-0.170	-0.191	-0.135	-0.494**	-0.726**	1.000	-0.016	0.089
LISTI	0.390**	0.217	-0.089	-0.048	0.004	0.025	-0.002	-0.016	1.000	0.473**
AUDIT	0.323*	0.138	-0.093	0.006	-0.047	0.176	-0.239	0.089	0.473**	1.000

* = correlation is significant at the 0.05 level (2–tailed)
** = correlation is significant at the 0.01 level (2–tailed)

217

(among the independent variables) is higher than 0.80, Gujarati (1995) cautions that in models involving more than two explanatory variables, the simple (zero–order) correlation will not provide an infallible guide to the presence of multicollinearity. In addition ". . . high zero–order correlations are a sufficient but not a necessary condition for the existence of multicollinearity because it can exist, even though the zero order or simple correlation are comparatively low (say less than 0,50)" (Gujarati, 1995, p.336). For this reason, alternative techniques were used to investigate the severity of any multicollinearity problem, (e.g. Variance Inflation Factor and Condition Index). The results of those tests are reported in Sections 7.6.3 and 7.6.4.

7.4.3   Predictor Selection Procedure

In a regression routine the number of potential equations increases with the number of predictors. In order not to have to examine every possible regression equation, a predictor selection procedure is usually followed. One procedure that has been used extensively by previous researchers is the stepwise approach, where the independent variables are added to (or taken away from) the equation one at a time, the order of entry (or removal) being determined by statistical considerations (e.g. Cooke, 1989). Wallace and Naser (1995) have cautioned that such statistical search strategies could lead to an erroneous conclusion because they may exclude one or more variables with offsetting effects. That is, where the two variables are positively (negatively) related but their effects on the dependent variable have opposite (similar) signs. Instead, they propose the hierarchical selection of variables based on the frequency with which they have been found to be explanatory in previous studies. However, to be consistent with the testing–down specification methodology followed in the study the main procedure followed in this section is the backward stepwise regression. Under this method all predictors are initially entered into the model and are then assessed for removal on the basis of a specified criterion. As one variable is excluded, all other excluded variables

are assessed for entry, again on the basis of a specified criterion. This procedure continues until no more predictors are to be removed from, or entered into, the equation. However, in order to determine whether the predictor selection procedure had any impact on the selection of predictors, alternative procedures were also used.

7.4.4   Results of Regression Procedures

A summary of the results of the backward stepwise regression is presented in Table 7.10. Initially (Model 1) all possible predictors are entered into the model. Then all variables are assessed for removal if they are not significant at the 10 per cent level. As one variable is removed, all excluded variables are assessed for entry if they are significant at the 5 per cent level. The first variable to be excluded is one of the company size measures used, log sales. Its removal increases the unstandardised B coefficient of the other size variable (log assets) from 0.251 to 0.333 and has only a minor impact on the unstandardised B coefficients of other variables. Additionally, its removal has only a minor impact on R^2 (decreases from 0.659 to 0.658). This probably indicates that the multiple correlation of log sales with log assets is high. The next variables to be removed are profit margin and log current ratio, whose removal has only a minor impact on R^2 (decreases from 0.658 to 0.657). Similarly, their removal does not result in a dramatic change in the unstandardised B coefficients of the variables included in the model. In the final model (Model 8) the variables remaining are ROCE, listing and conglomerates. This model has a fairly high explanatory power as the adjusted R^2 indicates that almost 60 per cent of the variations in the Cypriot corporate disclosure practices can be explained by three corporate characteristics (that is, conglomerates, listing and ROCE[55]). The coefficients of conglomerates and listing

---

[55] Although adjusted R^2 is the most popular method used to judge the adequacy of a regression model, Gujarati (1995) cautions that its use is dangerous because some researchers play the game of maximising adjusted R^2. He stresses that in regression analysis the objective of the researcher should not be to obtain a high adjusted R^2 per se, but to provide a logical or theoretical relevance of the explanatory variables and draw statistical inferences about them. "If in this process he obtains a high adjusted R^2, well and good; on the other hand, if adjusted R^2 is low, it does not mean the model is necessarily bad" (Gujarati, 1995, p.211).

PANEL A: MODEL SUMMARY[a, b, c, d]

Model	Variables		R	R Square	Adjusted R Square	Std. Error of the Estimate
	Entered	Removed				
1	AUDIT ROCE LGCUR OTHER LISTI PRMAR CONGL LGASS LGSAL[e, f]		0.812	0.659	0.582	4.5692
2[g]		LGSAL	0.811	0.658	0.592	4.5159
3[h]		PRMAR	0.811	0.658	0.601	4.4633
4[i]		LGCUR	0.811	0.657	0.609	4.4162
5[j]		LGASS	0.807	0.652	0.612	4.4005
6[k]		OTHER	0.800	0.639	0.607	4.4285
7[l]		AUDIT	0.789	0.623	0.599	4.4772
8[l]		AUDIT[m]	0.789	0.623	0.599	4.4772

a. Dependent Variable: RELAT
b. Method: Enter
c. Method: Backward (Criterion: Probability of F–to–remove >=0.10).
d. Method: Stepwise (Criteria: Probability–of–F–to–enter <=0.05, Probability–of–F–to–remove >=0.10).
e. Independent Variables: (Constant), AUDIT, ROCE, LGCUR, OTHER, LISTI, PRMAR, CONGL, LGASS, LGSAL
f. All requested variables entered
g. Independent Variables: (Constant), AUDIT, ROCE, LGCUR, OTHER, LISTI, PRMAR, CONGL, LGASS
h. Independent Variables: (Constant), AUDIT, ROCE, LGCUR, OTHER, LISTI, CONGL, LGASS
i. Independent Variables: (Constant), AUDIT, ROCE, OTHER, LISTI, CONGL, LGASS
j. Independent Variables: (Constant), AUDIT, ROCE, OTHER, LISTI, CONGL
k. Independent Variables: (Constant), AUDIT, ROCE, LISTI, CONGL
l. Independent Variables: (Constant), ROCE, LISTI, CONGL
m. Probability of –F–to remove = 0.10 limits reached

Table 7.10 – continued

PANEL B: ANOVA

Model		Sum of Squares	Degrees of freedom	Mean Square	F	Signific.
8	Regression	1524.895	3	508.298	25.358	0.000
	Residual	922.073	46	20.045		
	Total	2446.969	49			

PANEL C: COEFFICIENTS

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Signific	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	78.687	0.968		81.329	0.000		
ROCE	0.183	0.083	0.204	2.211	0.032	0.964	1.038
LISTI	8.441	1.273	0.601	6.633	0.000^n	0.997	1.003
CONGL	8.698	1.857	0.431	4.682	0.000	0.965	1.036

PANEL D: EXCLUDED VARIABLES

Variables	Beta In	t	Signific.	Partial Correlation	Collinearity Statistics		
					Toler.	VIF	Minimum Tolerance
LGSAL	0.120	1.102	0.276	0.162	0.692	1.444	0.692
PRMAR	-0.021	-0.195	0.846	-0.029	0.730	1.370	0.714
LGCUR	-0.038	-0.412	0.682	-0.061	0.988	1.012	0.956
LGASS	0.144	1.282	0.206	0.188	0.640	1.563	0.640
OTHER	-0.091	-0.862	0.393	-0.127	0.745	1.342	0.745
AUDIT	0.147	1.420	0.163^l	0.207	0.749	1.334	0.749

PANEL E: COLLINEARITY DIAGNOSTICS

Mode	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	ROCE	LISTI	CONGL
8	1	2.026	1.000	0.08	0.03	0.08	0.08
	2	1.012	1.415	0.02	0.67	0.06	0.09
	3	0.704	1.697	0.02	0.30	0.04	0.81
	4	0.258	2.805	0.88	0.01	0.82	0.02

n Given that Hypotheses H6(C) and H7(C) (for the influence of listing status and auditor type on Cypriot corporate disclosures respectively) are directional, the significant levels should be for an 1–tailed test. This implies that the significant levels reported should be halved. If this is done the listing status variable is more significant whilst the auditor type is still insignificant.

are positive and highly significant, while that of ROCE is significant at the 3.2 per cent level. When the regression was run using the forward stepwise regression approach the results were identical. The listing variable explained 35 per cent of the variation in the corporate disclosure practices of Cypriot companies. The next variable entered into the regression was conglomerates (which increased adjusted R^2 to 0.565) and the last variable entered was ROCE (raising adjusted R^2 to 0.599). The results suggest that Cypriot companies which are listed on the CSE, are classified as conglomerates or are more profitable, disclose significantly more extensive mandatory information than other companies.

The finding that Cypriot listed companies disclose more extensively than unlisted ones supports a priori speculation, and corroborates with the results from previous research (e.g. Wallace et al., 1994). It provides empirical evidence to support the arguments stemming from agency, capital need and disclosure costs theories, which suggest that listed companies may disclose more extensively than unlisted ones. The finding that Cypriot conglomerate companies disclose more extensive information than companies in other industry types is consistent with the results of Wallace and Naser (1995). Also, it provides empirical evidence to support the argument that companies operating in more than one business category will have more information to disclose, and will actually disclose it, than those which do not. Finally, the result that Cypriot companies with higher ROCE tend to provide more extensive information in their CAFSs is consistent with the conclusions of Singhvi (1967). This result also lends support to the predictions of agency, signalling and political cost theories that more profitable companies are more likely to disclose more extensively than less profitable ones.

It is interesting to note that although the bivariate analysis revealed that ROCE is not significantly related to the extent of Cypriot corporate disclosure (Section 7.3.3), the multivariate analysis revealed otherwise. Hence, despite the absence of a significant association there is still a connection between the two variables. This suggests that in

222

the bivariate test their relationship might have been suppressed by the influence of one or more other variables. In order to examine for this possibility, several scatterplots of the relative disclosure scores with ROCE were inspected, setting markers by different qualitative variables and fitting lines for each sub–group. The scatterplot of ROCE with relative scores (setting markers by listing and fitting two lines for each of the listed and unlisted groups) shows that the relationship between ROCE and disclosure scores is influenced by a company's listing status (Figure 7.2). The partial correlation between ROCE and relative scores, while controlling for the influence of listing, is 0.3553 and is significant at the 5 per cent level (p=0.012). This indicates that in the calculation of the zero order correlation coefficient a significant relationship between the ROCE and relative scores has been suppressed by the influence of listing. This means that when both listed and unlisted companies are considered together (and without differentiating between the two groups), their disclosure scores do not associate significantly with their ROCE. However, when each of the listed and listed groups are considered independently, their disclosure scores do associate significantly with their ROCE.

In order to examine whether alternative selection procedures would have an effect on the conclusions of the backward stepwise and the stepwise procedures, several alternative regression models were run. For example, alternative combinations of variables were examined, dropping in each case some of the highly–correlated variables. The results of those regressions were similar to those of the backward stepwise and the stepwise procedure. Finally, in order to assess the impact of the three data sets with the extreme negative profit margin observations (referred in Section 7.3.3) the regressions were re–run excluding the extreme observations. The results were similar to the regression with all fifty observations and, as such, they are not reported in the study.

FIGURE 7.2:
CYPRUS: SCATTERPLOT OF ROCE WITH RELATIVE SCORES
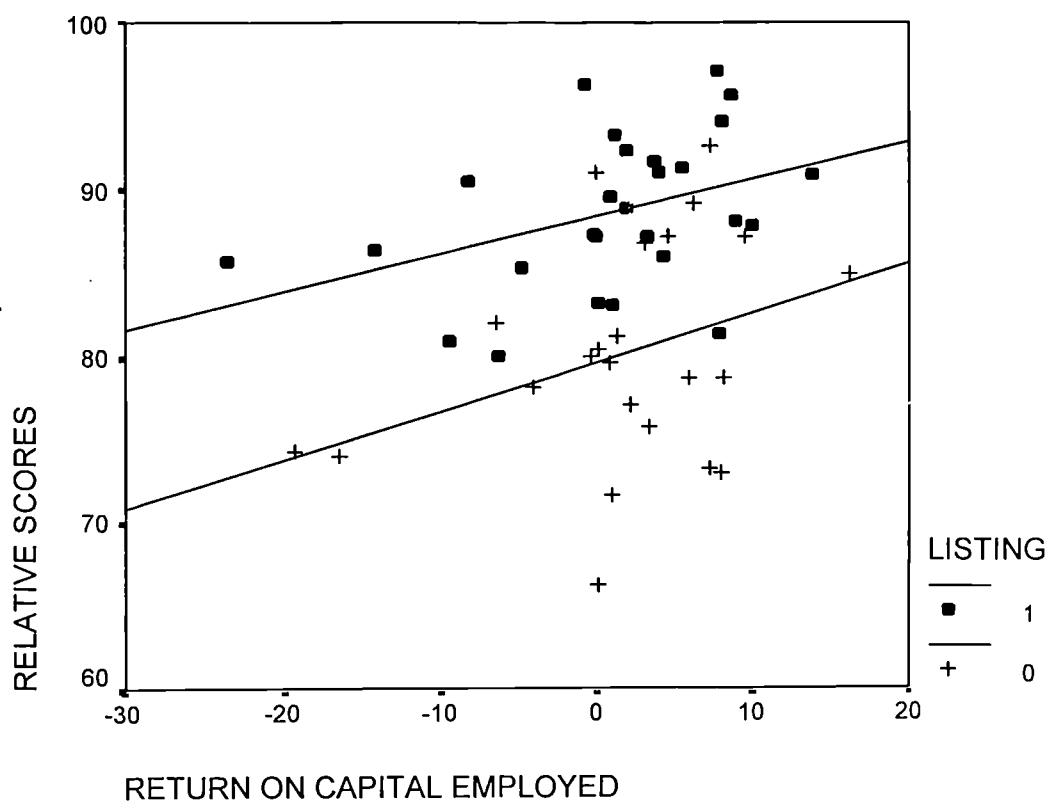
7.5 ASSESSING THE ROBUSTNESS OF THE REGRESSION MODEL

7.5.1 Economic a priori Criteria

Koutsoyiannis (1977) states that three different criteria can be used to assess the robustness of a model's estimates: economic, statistical and econometric criteria. The economic *a priori* criteria assess a model's robustness on the principles of economic theory and the prior assumptions underlying the hypothesised relationships between the dependent and the independent variables. The use of economic theory to assess a model's estimates is also of crucial importance if one wishes to ascribe causal connection between the dependent and the independent variables. This is because regression analysis does not necessarily imply causation. Kendall and Stuart (1961, p.279) caution that ". . . a statistical relationship, however strong and however suggestive, can never establish causal connection: our ideas of causation must come from outside statistics, ultimately from some theory or other". In this context, Gujarati (1995) stresses that to ascribe causality, one must appeal to a priori or theoretical considerations.

On the basis of economic criteria, the model developed for Cypriot companies is consistent with the predictions relating to listing status, industry type and ROCE. If listing on the CSE implies more shareholders and higher agency costs, then listed companies may disclose more extensive information in their annual reports in an attempt to reduce those costs. Similarly a listed company, being under more detailed scrutinisation by investors and analysts than an unlisted one, may disclose more extensively in an attempt to avoid attacks and criticisms for non–disclosure that are more likely to be brought to light by the detailed scrutinisation process. The results are also consistent with the capital need theory, in that listed companies, which are dependent on the market for their capital needs, may disclose more extensively in

order to lower their systematic risk and decrease their cost of capital. The result that conglomerates companies provide more detailed information than companies in other industry groups is consistent with the industry–specific factors proposition, that the complexity and nature of operations in specific industries (such as conglomerates) makes the disclosure of more detailed information by those companies essential, if that information is to be useful for decision making.

The positive effect of profitability on corporate disclosure is consistent with agency theory, which can be used to predict that managers of profitable companies will disclose more extensive information (than managers of less profitable companies) in order to show and explain to shareholders that they are acting in their best interests and justify their compensation packages. It is also in line with signalling theory which predicts that more profitable companies may be encouraged to disclose more extensively because failure to signal good news may be interpreted as bad news. Finally the positive effect of profitability on corporate disclosure is consistent with the political cost theory, which argues that more profitable companies may disclose more information in order to justify the level of their profits and counter potential government actions.

On the other hand, even though the bivariate analyses have shown that the effect of company size on corporate disclosure is significantly positive, the multivariate analysis did not find this influence to be significant. This is probably because the variables included in the model (listing and profitability) have captured most of the effect of the influences that are also captured by company size. For example, in the development of the research hypotheses, company size has been used as a proxy for disclosure, agency and political costs. These costs, however, have also been represented by the listing status and profitability variables. It may, therefore, be possible that listing status and profitability have captured most of the effect of those costs and have rendered the

additional explanatory power of the size variable insignificant.[56] In order to remove the

effect of the variables included in the final model (listing status, profitability and

industry–type variables) the partial correlation coefficient of log assets and log sales

with relative scores (controlling for the effects of listing, ROCE and conglomerates)

was calculated: the correlation coefficient of relative scores with both log asset and log

sales becomes insignificant (though remains positive[57]).

The insignificance of liquidity, although inconsistent with the prediction of signalling

and capital need theories, is in line with the findings of most empirical research (e.g.

Belkaoui and Kahl, 1978). In the case of auditor type, although its influence on

corporate disclosure is significantly positive when bivariate tests are used, this

influence disappears when the effect of auditor type on corporate disclosure is

examined simultaneously with other variables. This may be due to the possibility that

the influence of auditor type has been captured by the listing status variable included in

the model (all listed companies were audited by Big 5 auditors).

7.5.2   Statistical Criteria

Koutsoyiannis (1977) notes that the most commonly used statistical criteria to evaluate

the reliability of the estimates of a model's parameters are: (1) the standard error of

the estimate of the regression line; and (2) the adjusted R^2 of the model.   The

standard error of the estimate of the regression line measures the spread of the points

about the regression line and is often used as a measure of the "goodness of fit" of the

estimated regression line.   The adjusted R^2 gives an estimate of how much of the

---

[56] Ball and Foster (1982) note that as size has been used as a proxy for many influences, its meaning cannot be clearly stated.

[57] The correlation coefficient of relative scores with log assets was 0.1877 with the p value being 0.206; the respective values for log sales were 0.1621 and 0.276.

variation in the dependent variable is explained by the independent variables. In the case of the model for the Cypriot companies the standard error of the estimate of the regression line (4.48) is relatively low when compared to those reported in other studies.[58] This indicates that the disclosure of Cypriot companies is more predictable than those reported in some other studies. Additionally, the adjusted R^2 of the model for Cypriot Companies is almost 60 per cent indicating that the model has a reasonably high explanatory power, similar to that reported in some other studies.[59]

In an attempt to determine whether the explanatory power of the model can be improved, other variables found to be explanatory of corporate disclosure in other countries were incorporated in the model (e.g. gearing ratio and dividend ratio). Nevertheless, the explanatory power of the model could not be increased. This suggests that there might be other variables, such as ownership dispersion and ethnicity of management, that influence the disclosure practices of Cypriot companies. Unfortunately, it was not possible to test for the effects of those variables due to the lack of relevant data.

7.5.3   Econometric Criteria

Econometric criteria seek to ascertain whether the assumptions of the estimation technique employed are satisfied by the estimated model. As the OLS method has been used, the robustness of the developed model can be assessed by testing the validity of the OLS assumptions.

---

[58] For example, Khasharmeh's (1995) study of the disclosure practices of Jordanian companies reported a standard error of 5.888 while Cooke's (1989) study of the disclosure practices of Swedish companies reported a standard error of 7.300.

[59] For example, the adjusted R^2 reported by Khasharmeh (1995) and Cooke (1989) were 22.07 and 62.93 respectively.

The first assumption to be tested is the absence of multicollinearity. Multicollinearity exists when there is a high linear relationship between the independent variables. In the presence of multicollinearity between two or more independent variables, it is difficult (if not impossible) to determine their separate effects on the dependent variable (Vogt, 1993). Gujarati (1995) points out that if the sole purpose of regression analysis is prediction, then multicollinearity is not a serious problem. If, however, the purpose of regression analysis is not only prediction but also hypothesis testing then multicollinearity will be a problem. This is because multicollinearity leads to large standard errors of the estimators and the population values of the coefficients cannot be estimated precisely. However, Leamer (1983, p.300–1) stresses that ". . . that many of our explanatory variables are highly collinear is a fact of life". Hence, the issue is not whether multicollinearity exists or not, but the extent to which its presence is likely to cause major problems in hypothesis testing. Although an evaluation on the basis of a correlation matrix has indicated that the potential for multicollinearity is not severe (Section 7.6), two alternative approaches have also been used. The first was the use of the Variance Inflation Factor (VIF). The VIF is a widely used method of detecting the presence of multicollinearity. It shows how the variance of an estimator is inflated by the presence of multicollinearity and the higher the VIF the higher the extent of collinearity. Gujarati (1995) suggests that if the VIF of a variable exceeds 10, that variable is highly collinear. It can be seen from the collinearity statistics of Table 7.11 that the VIFs of all variables included in the model are less than 10. Hence, in the developed model for Cypriot companies there is no severe multicollinearity problem. Another method for detecting the presence of multicollinearity is the Condition Index (CI). Kennedy (1996) suggests that a CI greater than 30 indicates strong collinearity. Table 7.11 shows that the CI's of all dimensions are below 30. It can, therefore, be concluded that in the case of the Cypriot model multicollinearity is not a major problem.

The second assumption of OLS to be tested is that of homoscedasticity. Homoscedasticity exists when the disturbances of the model are spherical (they have

uniform variance). In the absence of homoscedasticity (and the presence of heteroscedasticity) internal estimation and hypothesis testing using the OLS estimators can no longer be trusted (Kennedy, 1996). This assumption was examined using a graphical method as suggested by Gujarati (1995). A visual inspection of the scatterplot of standardised residuals against standardised predicted values (Figure 7.3) shows that the spread of the residuals does not change with the predicted values, suggesting the absence of heteroscedasticity.

FIGURE 7.3:
CYPRIOT MODEL: SCATTERPLOT OF STANDARDISED RESIDUALS AGAINST STANDARDISED PREDICTED VALUES

Regression Standardised Residual
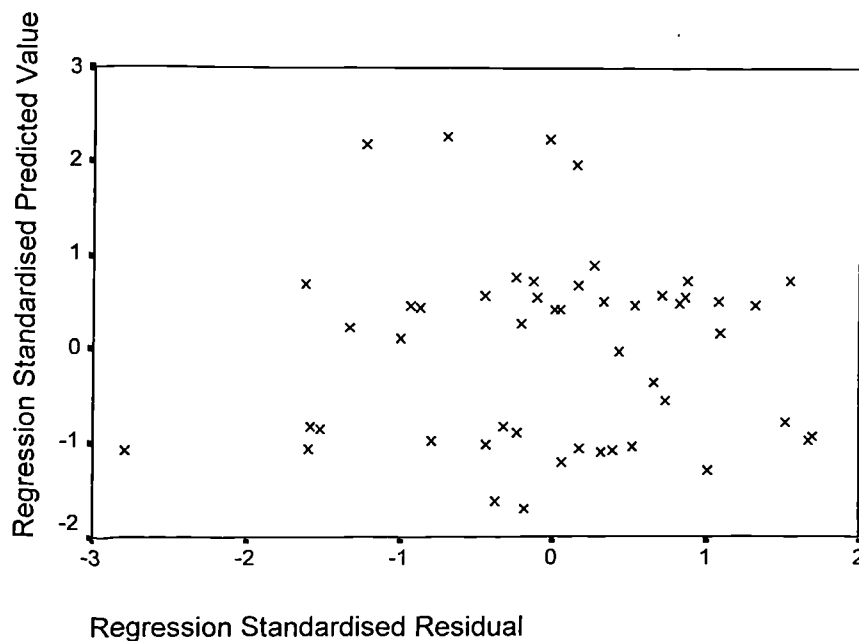
The third assumption to be tested is that of normality in the distribution of the disturbances of the regression model. Without this assumption we can still use the OLS procedure for point estimation (that is, estimate the sample regression function).

However, Gujarati (1995) points out that if our interest is not just point estimation but also hypothesis testing (that is, use of the sample regression function to draw inferences about the true population regression function) then we need to specify the probability distribution of the disturbances. With the normality assumption one can use the usual test procedures (the t and F tests) to test various statistical hypotheses regardless of the sample size (Gujarati, 1995). Kinnear and Gray (1996) point out that this assumption is fulfilled if the distribution of standardised residuals is normal. A normal p–p plot of standardised residuals (Figure 7.4) suggests that the disturbances are fairly normally distributed as the data points cluster around the diagonal line. Additionally, a Kolmogorov–Smirnov test for normality reveals that the standardised residuals have no significant departure from normality (z statistic is 0.581 and p=0.889).

FIGURE 7.4:
CYPRIOT MODEL: NORMAL P–P PLOT OF THE STANDARDISED RESIDUALS

Observed Cumulative Probability

231
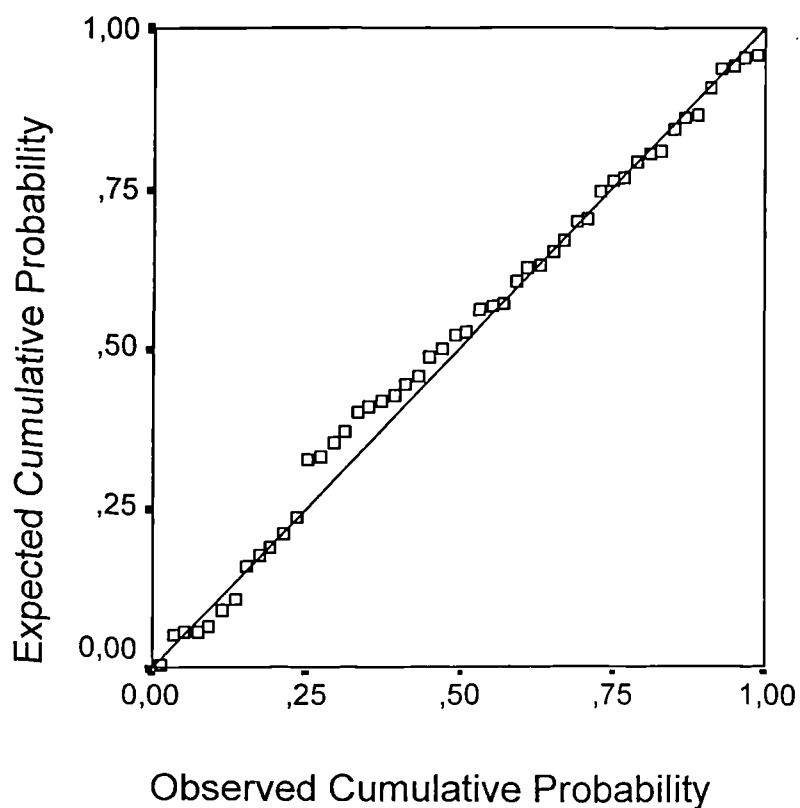
The last assumption to be examined is that of linearity in the parameters of the model. If the dependent variable is not a linear function of the set of independent variables and the disturbance term, then the standard OLS procedure cannot be used and must be revised to handle a non–linear functional form (Kennedy, 1996). Kinnear and Gray (1996) propose that a scatterplot of standardised residuals against standardised predicted values can provide useful information not only about the homogeneity of variance but about linearity as well. The scatterplot of standardised residuals against standardised predicted values (Figure 7.3) shows no discernible patterns, thereby confirming the assumptions of linearity and homoscedasticity.

Additionally, Gujarati (1995) points out that a model's residuals can also be examined, especially in cross–sectional data, to detect model specification errors, such as omission of an important variable or incorrect functional form. In case of such errors a plot of the residuals will exhibit distinct patterns. The absence of any noticeable patterns in the plot of the residuals (Figure 7.3) indicates that there are no major specification errors.

7.5.4   Testing for Interaction Effects

An interaction between two predictor variables means that the effect of one of them on the dependent variable depends on the level of the other. Gujarati (1995) stresses the importance of testing for interactions between the predictor variables, because an omission of a significant interaction term incorrectly will lead to a specification bias. In order to investigate the possibility of interactions between the predictor variables, several scatterplots of the relative scores with each independent variable were plotted, setting markers by different qualitative variables and fitting straight lines for each sub–group. A peculiar relationship is shown by one of the scatterplots. Figure 7.5 shows that the relationship between the corporate disclosure scores and the current ratios of

FIGURE 7.5:
CYPRUS: SCATTERPLOT OF CURRENT RATIO WITH RELATIVE SCORES
(fitting different regression lines for the listed and unlisted groups)
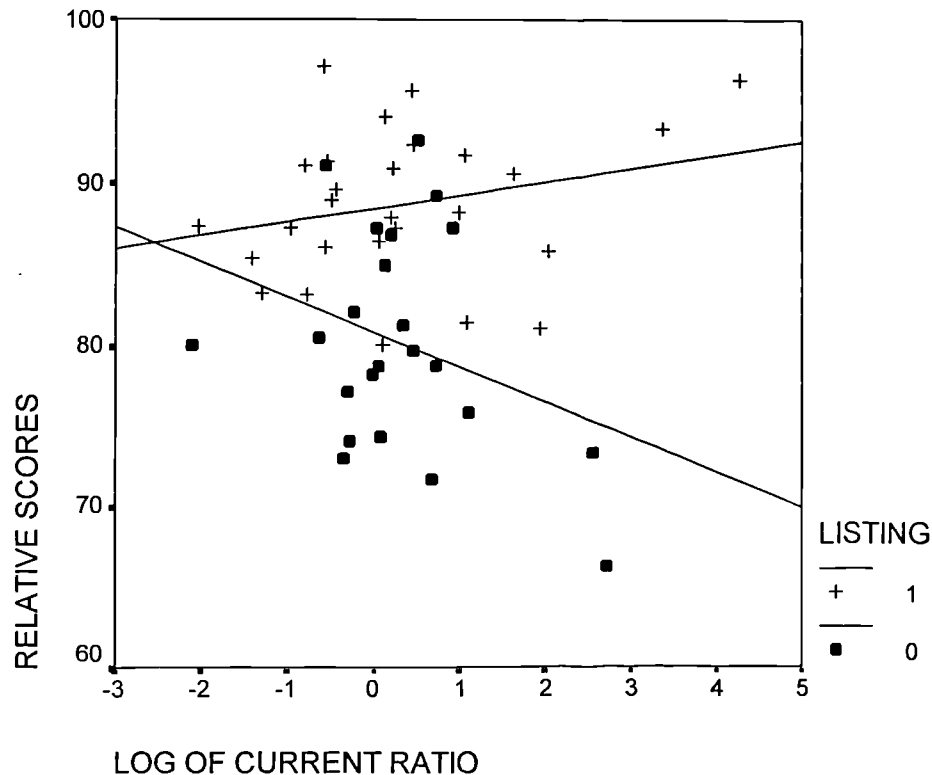
the sample companies is affected by their listing status. This is evidenced by the fact that in the case of listed companies (marked with a cross) their disclosure scores are positively related with current ratios, as the fitted regression line is upward sloping; whilst in the case of unlisted companies (marked with a dot) their disclosure scores are negatively related with current ratio, as the fitted regression line is downwards sloping.

It was decided to test for the effect of this interaction. Retherford and Choe (1993) propose that when we do not know the precise mathematical form of the interaction, we must choose as simple a form as possible. They state that the usual way of specifying an interaction between I and E is to add a multiplicative (I times E) term to the model. Thus, a new variable (log current ratio times listing) was created and another regression was run using the backward stepwise procedure used in the

233

original model. The new model had a greater explanatory power (adjusted R^2 = 0.654) than the original model. Furthermore, in addition to the variables included in the original model (conglomerates, listing and ROCE), it also incorporated log current ratio and the interaction of log current ratio with listing (Table 7.11). The result suggests that the relationship of a company's disclosure with its current ratio depends on whether the company is listed or not. The disclosure scores of unlisted companies are negatively related to their current ratio as the coefficient of log current ratio (-2.540) is significant. In contrast, the disclosure scores of listed companies are positively related to their current ratio, as the coefficient of the interaction log current ratio times listing

---

TABLE 7.11:
CYPRUS: RESULTS OF BACKWARD STEPWISE REGRESSION
INCLUDING THE INTERACTION EFFECT
(p values are for 2–tailed tests)

MODEL SUMMARY

Variables	R	R Square	Adjusted R Square	Std. Error of the Estimate
ROCE LISTI LGCUR CONGL LGCUR.LISTI	0.830	0.690	0.654	4.1545

COEFFICIENTS

Variables	Unstandardised Coefficient		Standardised Coefficient	t	Signific.	Collinearity Statistics	
	B	Std Error	Beta			Tolerance	VIF
(Constant)	79.407	0.933		85.153	0.000		
CONGL	8.114	1.745	0.402	4.649	0.000	0.941	1.063
LGCURxLISTI	3.324	1.095	0.493	3.037	0.004	0.268	3.737
LISTI	7.528	1.218	0.536	6.178	0.000	0.936	1.068
LGCUR	-2.540	0.905	-0.443	-2.805	0.007	0.283	3.532
ROCE	0.237	0.079	0.264	2.994	0.005	0.906	1.104

(3.324) is significant, making the coefficient of log current ratio for listed companies equal to -2.540 + 3.324 = 0.784. It was decided to investigate whether the interaction might have been caused by the peculiarities of the sample. A scatterplot of current ratio against relative scores indicated that the data set for current ratio included two companies whose current ratios were 70.30:1 and 28.90:1. The first was a property company that had an abnormally high amount of work in progress reported in its current assets due to uncompleted contracts (its work in progress was eight times higher than its sales). The second was a holding company which had an abnormal amount of cash and debtors (almost five times its sales). The data for these two companies were removed and a new regression was run to re–examine for the effect of the interaction. The new model excluded the log current variable as well as the interaction effect. The variables entered into the model were those of the original model (conglomerates, listing and ROCE). Furthermore, the model had similar explanatory power to the original model and the coefficients of the included variables were similar. The above procedure confirmed that it was the presence of the two outliers that made the interaction effect significant. Given the abnormality in the liquidity position of those two companies it was decided not to include the interaction effect in the final model.

The above procedure has pinpointed that the investigation of interaction effects is a very important issue in disclosure studies involving the use of multivariate statistical methods. This is because a failure to investigate and test for such interactions, runs the danger of omitting a significant interaction term incorrectly, thereby leading to a specification bias.

7.6   SUMMARY

This chapter answered the first, second and third research questions posed for Cypriot companies. Section 7.2 presented and discussed the descriptive statistics of the Cypriot relative corporate disclosure scores which aimed to measure disclosure extensiveness by Cypriot companies. The disclosure practices of the Cypriot sample companies, on the whole, appear to be extensive, as the minimum, maximum and mean disclosure scores reported compare favourably with those reported in previous mandatory disclosure studies. Section 7.3 presented and interpreted the results of the various bivariate and multivariate statistical tests performed on the second and third research questions posed for Cypriot companies. The results of the various bivariate statistical tests performed provided evidence that there is a significant association between the extent of disclosure by Cypriot companies and company size, industry type, listing status and auditor type. A multivariate regression model was specified that sought to investigate whether the variations in the extent of disclosure practices by the Cypriot sample companies could be explained by the selected corporate characteristics together. The bottom–up specification methodology has been used, starting with a general specification and testing it down for simplification. The parameters of the regression model were estimated using the OLS procedure which, under certain conditions, has some attractive statistical properties. The robustness of the regression model was assessed using economic, statistical and econometric criteria. It was found that the model was reasonably well specified and that there were no serious violations of the OLS assumptions. Based on the regression model reported in this chapter, which has an adjusted R^2 of 60 per cent and a standard error of the estimate of 4.48, the fitted equation of the disclosure index for Cypriot companies is:

$$\hat{Y}_i = 78.687 + 0.183\ ROCE_i + 8.698\ Conglomerate_i + 8.441\ Listing_i$$

where:

$\hat{Y}_i$ = *the estimate of the true disclosure score that the ith sample company will earn under the 1996 disclosure regulatory regime in Cyprus.*

In sum, the empirical evidence suggests that the variations in the extent of corporate mandatory disclosure practices of Cypriot companies is explained by the intercept and a company's profitability, industry type and listing. A detailed discussion and comparison of these results with those found for Greek companies is provided in Chapter 9.

CHAPTER 8

FINANCIAL DISCLOSURE PRACTICES OF GREEK COMPANIES: STATISTICAL ANALYSES AND RESULTS

8.1   INTRODUCTION

Chapter 8 answers the first, second and third research questions posed for Greek companies. It reports and discusses the statistical methods employed to address research question one and the testable hypotheses developed in Chapter 5 for research questions two and three. The statistical tests and procedures employed in this chapter are essentially the same as those used for Cypriot companies in Chapter 7. As the selection of those tests has already been justified, only the results of the tests and their interpretations are reported here.

8.2 DESCRIPTIVE STATISTICS

Section 8.2 reports and discusses the results of the statistical methods employed to address research question one, that is, to examine the extensiveness of mandatory information disclosure in the CAFSs of Greek companies. The extent of disclosure by the Greek sample companies is measured by a disclosure measuring instrument whose contents, development, reliability and validity were discussed in Chapter 6. As in the case of Cypriot companies (Chapter 7), an attempt is also made to judge the extensiveness of Greek corporate disclosure in the context of other mandatory disclosure studies. This is done by comparing the disclosure scores of the Greek sample companies with the disclosure scores of other companies reported in previous mandatory disclosures studies.

Table 8.1 presents the descriptive statistics for the relative disclosure scores and the selected corporate characteristics of Greek companies. The range of disclosure index varies from about 83 to 93 per cent with the mean disclosure index being 88.8 per cent. The disclosure practices of the Greek sample companies, on the whole, appear to be extensive, as the minimum, maximum and mean disclosure scores reported compare very favourably with those reported in Chapter 7 for Cypriot companies as well as to those reported in some prior studies on both developed and developing countries (e.g. Wallace et al., 1994, Wallace and Naser, 1995, Patton and Zelenka, 1997 and Owusu–Ansah, 1998). It is noticeable that the standard deviation of the index is very small when compared to that found for Cypriot companies (2.3% versus 7.1%). This indicates that the variability in the disclosure practices of Greek companies is less than those of Cypriot companies. This is probably because of the stringent disclosure regulations in Greece. Greek law sets out the disclosure requirements in a great extent of detail and effectively acts as a disclosure checklist which companies have to go through. In contrast, in Cyprus the main source of disclosure requirements are the IASs, which do not have the backing of the Cypriot

Companies Act 1951 and, in many cases, it is the accountant who determines the extent of detail to be disclosed about a particular item.

TABLE 8.1:
GREECE: DESCRIPTIVE STATISTICS FOR THE RELATIVE DISCLOSURE SCORES AND THE SELECTED CORPORATE CHARACTERISTICS

PANEL A: CONTINUOUS VARIABLES: UNTRANSFORMED DATA (n = 74)

VARIABLE	CODE–NAME	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM	SKEWNESS	KURTOSIS
Relative Score (%)	RELAT	88.8	2.3	83.3	92.8	-0.2	-0.6
Age (years)	AGE	36.2	25.0	4	116	1.2	1.1
Assets (GRD m)	ASSET	22,248	30,910	627	147,527	2.5	5.8
Capitalisation (GRD m)	CAPIT	21,519	55,526	696	432,008	6.0	42.1
Sales (GRD m)	SALES	21,460	32,148	14.9	143,191	2.5	5.8
Profit Margin (%)	PRMAR	9.6	32.7	-231.5	58.5	-5.8	41.4
Return on Capital Employed (%)	ROCE	16.2	13.5	-17.2	53.0	0.3	0.6
Current Ratio (times)	CURRE	2.2	2.4	0.5	17.7	4.4	24.9

PANEL B: CONTINUOUS VARIABLES: TRANSFORMED DATA (n = 74)

VARIABLE	CODE–NAME	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM	SKEWNESS	KURTOSIS
Natural Log of Age	LGAGE	3.3	0.8	1.4	4.8	-0.5	-0.1
Natural Log of Assets	LGASS	9.3	1.2	6.4	11.9	0.2	-0.3
Natural Log of Capitalisation	LGCAP	9.0	1.2	6.6	13.0	0.8	1.0
Natural Log of Sales	LGSAL	9.1	1.6	2.7	11.9	-1.2	3.2
Natural Log of Current Ratio	LGCUR	0.5	0.7	-0.7	2.9	1.0	1.7

Table 8.1 – continued

CATEGORY	NUMBER OF COMPANIES	PROPORTION OF SAMPLE (%)	RELATIVE SCORES	
			MEAN	STD. DEVIATION
INDUSTRY GROUP:				
Conglomerates	14	19	90.4	1.9
Manufacturing	31	42	89.4	2.0
Others	29	39		
All Companies	74	100	87.4	2.0
LISTING STATUS:				
Main Market	62	84	89.2	2.1
Parallel Market	12	16	86.8	2.0
All Companies	74	100	88.8	2.3
AUDITOR TYPE:				
SELE firms	22	30	88.8	2.6
Non–SELE firms	52	70	88.8	2.1
All Companies	74	100	88.8	2.3

The measures for skewness for some continuous variables (e.g. sales and assets) suggest that their distributions are skewed. In order to check the skewness of the distributions the histograms for all continuous variables were inspected, which confirmed that the variables on assets, sales, capitalisation, current ratio, age, profit margin and ROCE were skewed. To reduce the effects of skewness, the variables without negative values (all continuous explanatory variables except profit margin and ROCE) were transformed using the natural logarithmic conversion of the original figures. A visual inspection of the histograms after the transformations revealed that the skewness of all variables have been reduced.[60] The data for profit margin included one extreme negative value corresponding to a company with virtually no operations during the year. When this value was removed the skewness of the distribution improved substantially (skewness = 1.65). In view of the low number of observations it was decided to keep the data of the extreme observation in the distribution. Furthermore, the data sets for profit margin and ROCE were kept in their

---

[60] A Kolmogorov–Smirnov test showed that the data for the relative disclosure scores, ROCE, log age, log asset and log capitalisation conformed to a normal distribution.

untransformed form as they included negative values and no standard method of transformation could have given meaningful results.

Several scatterplots were inspected in order to check the linearity of the data sets for the continuous variables. With the exception of profit margin, all scatterplots revealed that the relationship of the continuous explanatory variables with the relative scores did not exhibit significant patterns of non–linearity (Figure 8.1). The scatterplot of profit margin indicates a pattern of non–linearity. This implies that in measuring the association between profit margin and the corporate disclosure scores the Pearson correlation (which measures the strength of linear association between two variables) may not be an appropriate test to use. This is discussed in detail in Section 8.3.4.

FIGURE 8.1:
GREECE: SCATTERPLOTS OF RELATIVE SCORES WITH THE
CONTINUOUS EXPLANATORY VARIABLES

LOG OF AGE

242

Figure 8.1 – continued

243
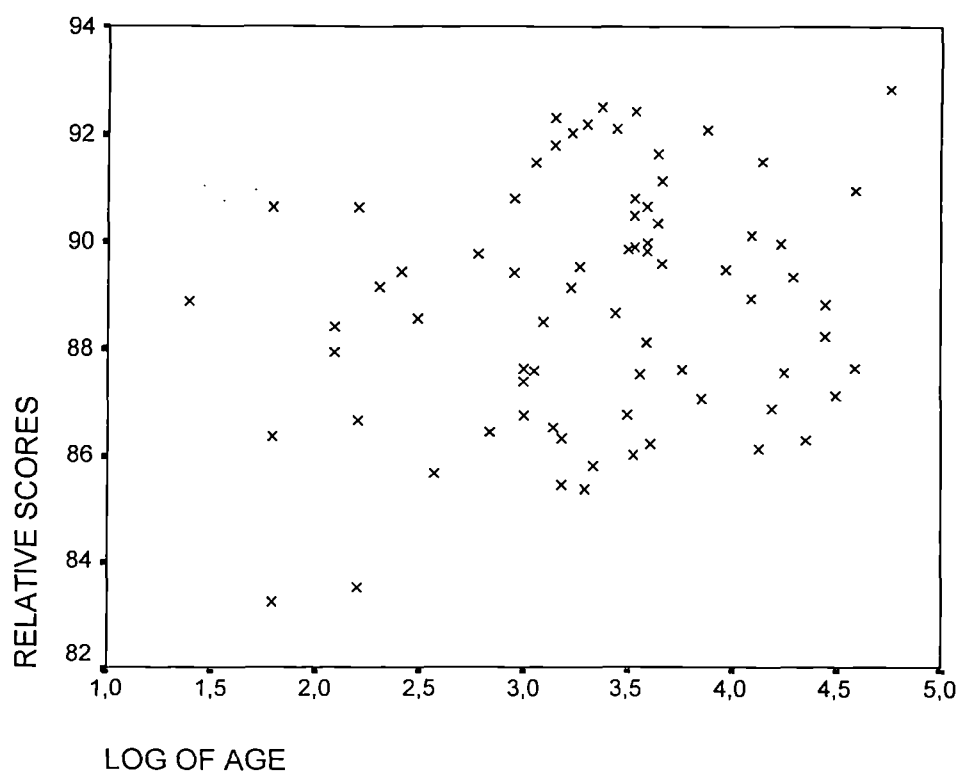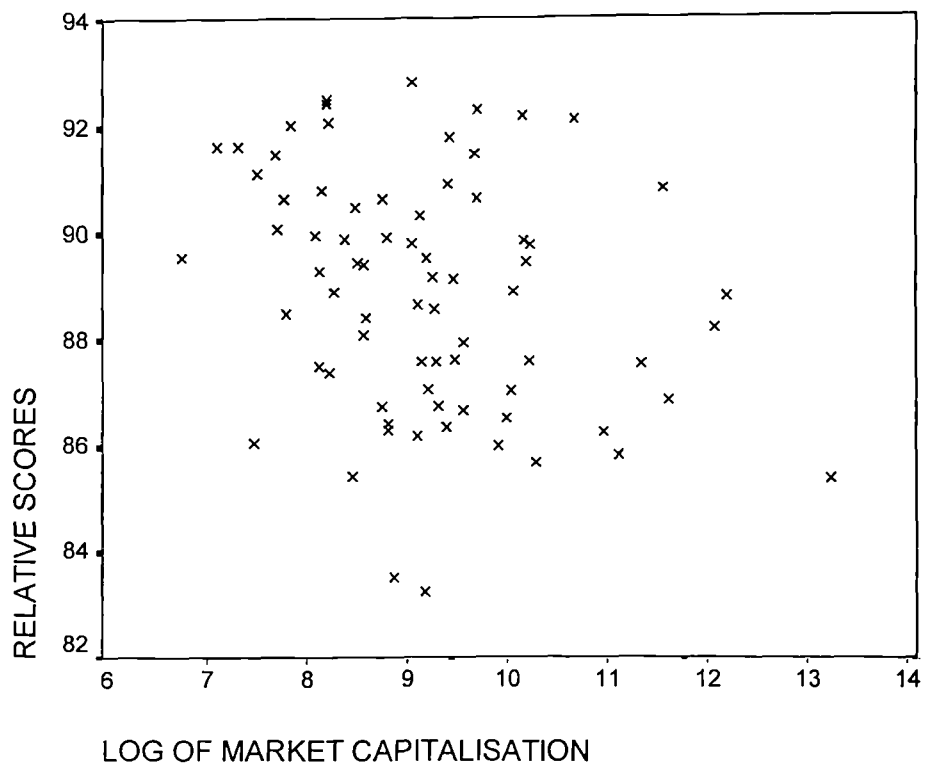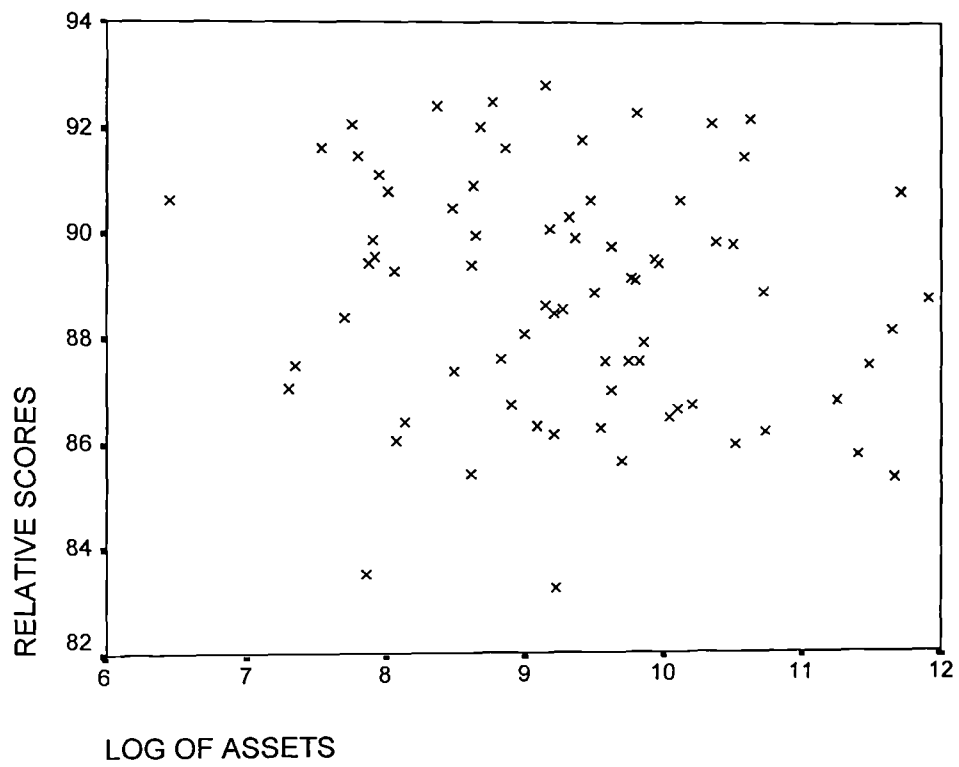
Figure 8.1 – continued

Figure 8.1 – continued

RELATIVE SCORES

RETURN ON CAPITAL EMPLOYED

RELATIVE SCORES

PROFIT MARGIN
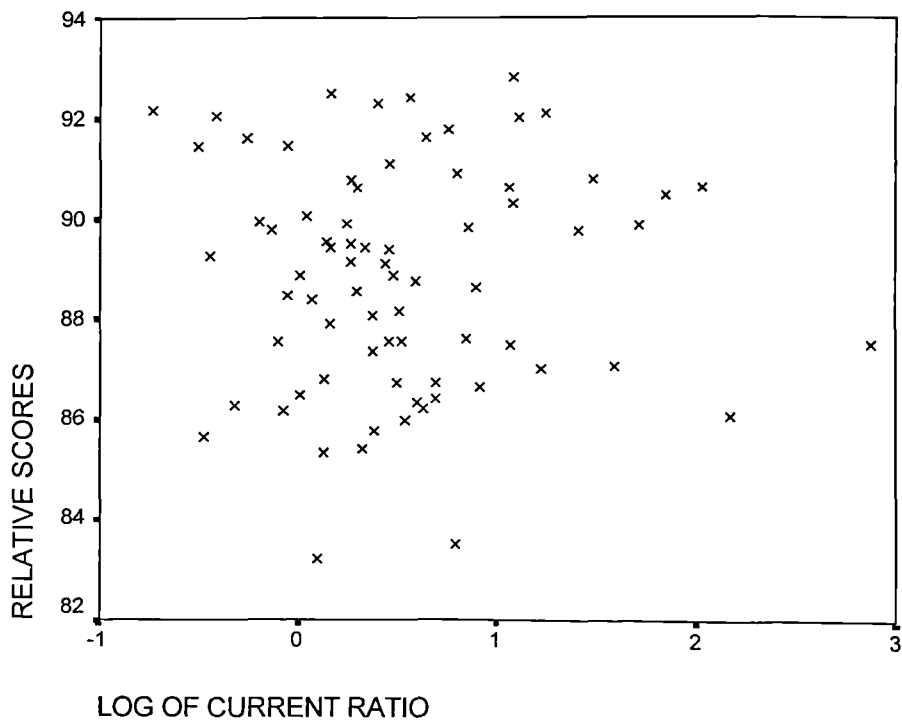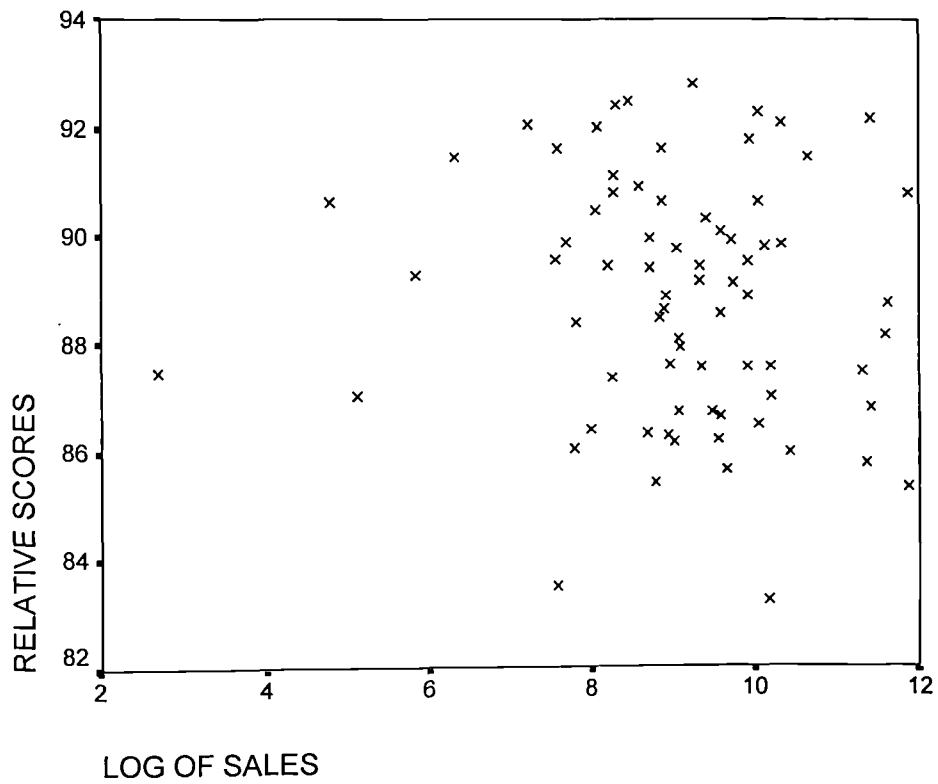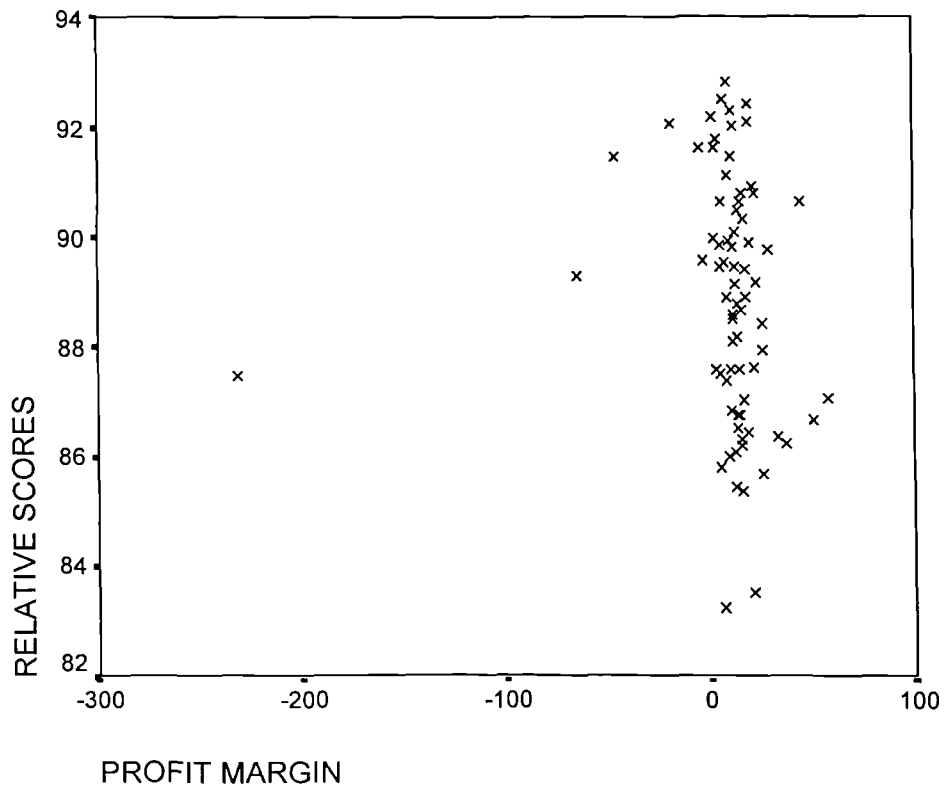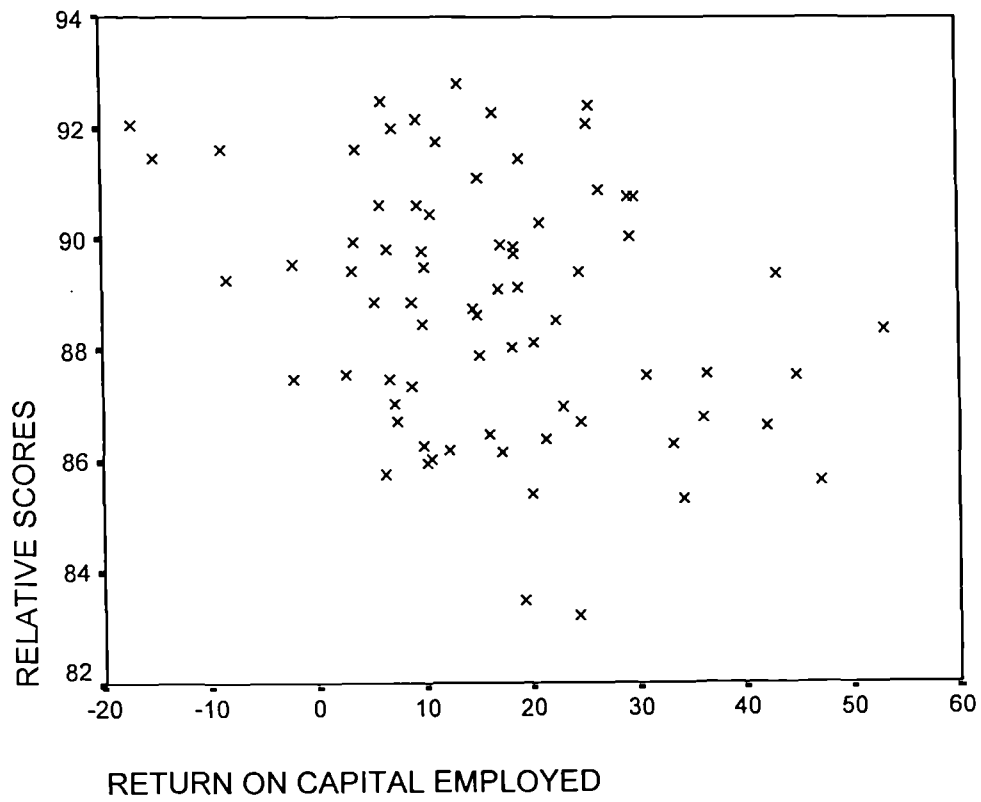
8.3   BIVARIATE STATISTICAL TESTS AND INTERPRETATION

8.3.1   Introduction

Section 8.3 answers the second research question posed for Greek companies. Specifically, it reports the results of the bivariate statistical methods employed to investigate whether there is an association between the extent of disclosure by Greek companies and each of a number of selected corporate characteristics. Section 8.3 also interprets the results in the context of the testable hypotheses in Chapter 5 for research question two and compares the results of the study with some previous disclosure studies.

8.3.2   Company Size Hypothesis

The company size hypothesis states that:

H1:   *There is an association between a company's size and the extent of its disclosure practice.*

The appropriateness of the Pearson correlation test was examined by running a regression of the relative scores on each of the company size measures. The residuals were examined for normality and homoscedasticity by inspecting the normal p–p plots of the residuals and the scatterplots of standardised residuals against standardised predicted values. It was found that the assumptions of normality and homoscedasticity were reasonably safe, suggesting that a parametric test would have been more appropriate. Nonetheless, both the Pearson and the Spearman tests were used to examine this hypothesis.

The results reported in Table 8.2 reveal a very interesting relationship. All correlation coefficients are negative, suggesting that in Greece company size is negatively associated with corporate disclosure practices. Nevertheless, the only significant relationship is revealed when company size is measured by log market capitalisation. This finding is not in line with the results from other studies (e.g. Cerf, 1961 and Cooke, 1991) and provides evidence to support the argument stemming from political cost theory, that large companies may reduce the likelihood of political action by disclosing less information so as to avoid the increased attention that comprehensive disclosure may draw to them. A detailed discussion of this result is undertaken in Chapter 9.

TABLE 8.2:
RESULTS OF TESTS OF ASSOCIATION BETWEEN GREEK CORPORATE DISCLOSURE PRACTICES AND SIZE

CORRELATIONS	PARAMETRIC TESTS		NON–PARAMETRIC TESTS	
	Pearson Correlation	Significance (2–tailed)	Spearman Correlation	Significance (2–tailed)
Log Assets with Relative Score	-0.161	0.171	-0.175	0.136
Log Sales with Relative Score	-0.096	0.417	-0.136	0.248
Log Capitalisation with Relative Score	-0.290*	0.012	-0.294*	0.011

* = correlation is significant at the 0.05 level (2–tailed).

8.3.3   Company Age Hypothesis

The company age hypothesis states that:

H2:   *There is an association between a company's age and the extent of its disclosure practice.*

Although the normal p–p plot and the scatterplot of standardised residuals against standardised predicted values showed that the normality and homogeneity assumptions were safe, both the Pearson and the Spearman correlation tests were used to examine this hypothesis.

The results, reported in Table 8.3, show that company age is not significantly related to the extent of Greek corporate disclosure. Thus, Hypothesis 2 is not supported. The results do not support the proposition that younger companies are less likely to disclose more information in their annual reports because this may harm their competitive position. This result is not in line with that of Owusu–Ansah (1998) but corroborates that of Henderson (1969).

TABLE 8.3:
RESULTS OF TESTS OF ASSOCIATION BETWEEN GREEK CORPORATE DISCLOSURE PRACTICES AND AGE

CORRELATIONS	PARAMETRIC TESTS		NON–PARAMETRIC TESTS	
	Pearson Correlation	Significance (2–tailed)	Spearman Correlation	Significance (2–tailed)
Log Age with Relative Score	0.206	0.078	0.172	0.143

248

8.3.4 Company Profitability Hypothesis

The company profitability hypothesis states that:

H3:   *There is an association between a company's profitability and the extent*

of its disclosure practice.

A visual inspection of the p–p plots and the scatterplots indicate that although in the case of ROCE with relative scores both parametric and non–parametric tests can be used, in the case of profit margin with relative scores a non–parametric test is more appropriate. However, both parametric and non–parametric tests have been used to measure the association between the disclosure indexes and ROCE and profit margin.

Table 8.4 reports the results of both the Pearson and Spearman correlation tests, which reveal that there is an association between a Greek company's profitability and the extent of its disclosure practice. The signs of both coefficients reveal another

TABLE 8.4:
RESULTS OF TESTS OF ASSOCIATION BETWEEN GREEK CORPORATE DISCLOSURE PRACTICES AND PROFITABILITY

CORRELATIONS	PARAMETRIC TESTS		NON–PARAMETRIC TESTS	
	Pearson Correlation	Significance (2–tailed)	Spearman Correlation	Significance (2–tailed)
ROCE with Relative Score	-0.297*	0.01	-0.250*	0.032
Profit Margin with Relative Score	-0.074	0.532	-0.272*	0.019

* = correlation is significant at the 0.05 level (2–tailed).

interesting relationship. The extent of disclosure by Greek companies is negatively related to their profitability. The negative correlations are all significant at the 5 per cent level with the exception of the Pearson correlation and when profitability is measured by profit margin. However, given that the relationship between profit margin and relative scores is not linear (Figure 8.1) and the fact that a non–parametric test has been found to be more appropriate, the results of the Spearman test seem to be more relevant. Hence, it can be concluded that there is a significant negative association between the extent of disclosure by Greek companies and their profitability. The result is consistent with the argument derived from political cost theory, that companies with large declared profits may be more politically sensitive and may disclose less details in order to avoid government or public attacks. Additionally, this finding lends support to the result reported in Section 8.3.2 between corporate size and disclosure. The result is also consistent with the argument derived from signalling theory that information disclosure can be used as a mechanism for explaining bad news. A detailed discussion of those findings is presented in Chapter 9. The result reported here corroborates that of Wallace and Naser (1995), but is not in line with that of Singhvi (1967) and Abu–Nassar and Rutherford (1994).

8.3.5   Company Liquidity Hypothesis

The company liquidity hypothesis states that:

H4:   *There is an association between a company's liquidity and the extent of its disclosure practice.*

Although a visual inspection of the p–p plot and the scatterplot indicates that a parametric test is more appropriate, the hypothesis was examined by both the Pearson and the Spearman correlation tests.

Table 8.5 suggests that there is no association between corporate liquidity and disclosure. This result is not in line with that reported by Wallace et al. (1994) but is consistent with that of Belkaoui and Kahl (1978). Furthermore, the result is not in line either with signalling theory, which predicts that liquidity and disclosure are negatively related, or with capital need theory, which predicts that this relationship in positive.

TABLE 8.5:
RESULTS OF TESTS OF ASSOCIATION BETWEEN GREEK CORPORATE DISCLOSURE PRACTICES AND LIQUIDITY

CORRELATIONS	PARAMETRIC TEST		NON–PARAMETRIC TESTS	
	Pearson_ Correlation	Significance (2–tailed)	Spearman Correlation	Significance (2–tailed)
Log Current Ratio with Relative Score	-0.008	0.947	0.022	0.855

8.3.6 Industry–type Hypothesis

The industry–type hypothesis states that:

H5: *The extent of a company's disclosure practice varies depending on the industry to which it belongs (whether it is a manufacturer, conglomerate or other).*

The Shapiro–Wilks and the Levene test confirmed that the data sets for the three industrial groups are drawn from populations whose distributions are normal and

whose variances are equal.[61] Although this suggests that a parametric test of difference may be more appropriate, the hypothesis was examined using both the parametric one way ANOVA and the non-parametric Kruskal–Wallis tests.

The results, reported in Table 8.6, indicate there are significant differences in the mean disclosure practices of the Greek sample companies in the three industrial groups. The F statistic for the ANOVA test and the Chi–square statistic for the Kruskal–Wallis test are significant at the 1 per cent level. An *a posteriori* Scheffé test

---

TABLE 8.6:
RESULTS OF TESTS FOR EQUALITY OF MEANS OF GREEK CORPORATE DISCLOSURE PRACTICES BY INDUSTRY TYPE

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Manufacturing	31	89.4	1.95	0.35	88.7	90.2
Conglomerates	14	90.4	1.89	0.50	89.3	91.4
Others	29	87.4	1.99	0.37	86.7	88.2
Total	74	88.8	2.26	0.26	88.3	89.4

PANEL B: ONE WAY ANOVA TEST

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic	Significance (2–tailed)
Between Groups	99.952	2	49.976		
Within Groups	271.297	71	3.821		
Total	371.250	73		13.079	0.000

---

[61] The Shapiro–Wilks statistic is 0.932 for conglomerates, 0.966 for manufacturing and 0.962 for others; the respective significance levels are 0.326, 0.424 and 0.372. The Levene statistic is 0.105 and $p = 0.900$.

Table 8.6 – continued

PANEL C: KRUSKAL–WALLIS TEST

Group	Number of Companies	Mean Rank	Chi–Square	Degrees of Freedom	Asymptotic Significance (2–tailed)
Manufacturing	31	42.95			
Conglomerates	14	52.07			
Others	29	24.64			
Total	74		18.794	2	0.000

was undertaken in order to determine which group has significantly different disclosure practices. The results of the Scheffé test, shown in Table 8.7, indicate that the extent of disclosure by companies in the others group is significantly lower than that of the manufacturing and the conglomerate groups.

TABLE 8.7:
RESULTS OF SCHEFFÉ MULTIPLE COMPARISONS TEST FOR THE GREEK INDUSTRIAL GROUPS

First Group	Second Group	Mean Difference Between Groups	Std. Error	Significance (2–tailed)
Manufacturing	Conglomerates	-0.9116	0.629	0.356
	Others	1.9997*	0.505	0.001
Conglomerates	Manufacturing	0.9116	0.629	0.356
	Others	2.9113*	0.636	0.000
Others	Manufacturing	-1.9997*	0.505	0.001
	Conglomerates	-2.9113*	0.636	0.000

* = The mean difference is significant at the 0.05 level.

Hence, the Scheffé test provides evidence that companies which are not conglomerates or manufacturing disclose significantly less information. This corroborates with prior empirical evidence reported by Wallace and Naser (1995) and Cooke (1991). It is also in line with the proposition that industry specific factors may make companies in different industries disclose differently.

8.3.7   Listing Status Hypothesis

The listing status hypothesis states that:

H6(G):   *The extent of disclosure of a Greek main–market listed company is greater than that of a parallel–market listed one.*

The normality in the distribution of the data sets of the two groups was confirmed by the Shapiro–Wilks and the Kolmogorov–Smirnov tests. Additionally, the Levene's test confirmed that the variances of the two groups are equal.[62] Nevertheless, the hypothesis was examined with both the parametric t and the non–parametric Mann–Whitney tests.

The statistics of the t and the Mann–Whitney U tests are significant at the 1 per cent level and provide evidence that Greek main market listed companies disclose more extensively than parallel market listed companies. The result corroborates that of Singhvi and Desai (1971) and is line with the prediction derived from agency theory, that Greek main market listed companies may disclose more extensively than parallel market listed companies in an attempt to reduce their agency costs.

---

[62] The Shapiro–Wilks statistic for the parallel–market group is 0.944 and the significance is 0.513. The Kolmogorov–Smirnov statistic for the main–market group is 0.090 and the significance > 0.200. The Levene statistic is 0.233 and the significance is 0.631.

TABLE 8.8:
RESULTS OF TESTS OF DIFFERENCE BETWEEN THE DISCLOSURE PRACTICES OF GREEK MAIN–MARKET AND PARALLEL–MARKET LISTED COMPANIES

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	Std. Deviation	Std. Error of Mean
Parallel–market Listed Companies	12	86.77	2.02	0.5843
Main–market Listed Companies	62	89.23	2.09	0.2649

PANEL B: T-TEST

Test	t–value	Degrees of Freedom	Significance (1–tailed)	Mean Difference	Std. Error of Difference
Equality of Means	-3.757	72	0.000	-2.4601	0.6548

PANEL C: MANN–WHITNEY U TEST

Group	Number of Companies	Mean Rank	Sum of Ranks	Z statistic	Significance (1–tailed)
Parallel–market Listed Companies	12	19.29	231.50	-3.204	0.001
Main–market Listed Companies	62	41.02	2543.50		

255

8.3.8   Auditor–type Hypothesis

The auditor–type hypothesis states that:

H7(G):   *There is an association between a Greek company's auditor type and the*

extent of its disclosure practice.

Although the Kolmogorov–Smirnov, Shapiro–Wilks and Levene tests confirmed the

normality and homogeneity of variances assumptions, the hypothesis was examined

using both the t and the Mann–Whitney tests.[63]

TABLE 8.9:
RESULTS OF TESTS OF DIFFERENCE BETWEEN THE DISCLOSURE
PRACTICES OF GREEK COMPANIES AUDITED BY SELE AND NON–SELE
MEMBER AUDIT FIRMS

PANEL A: DESCRIPTIVE STATISTICS

Group	Number of Companies	Mean	Std. Deviation	Std. Error of Mean
Companies Audited by Non–SELE Members	52	88.84	2.14	0.2963
Companies Audited by SELE Members	22	88.82	2.57	0.5474

---

[63] The Kolmogorov–Smirnov statistic for the non–SELE group is 0.089 and the significance > 0.200. The Shapiro–Wilks statistic for the SELE group is 0.963 and the significance 0.544   The Levene statistic is 0.366 and the significance 0.547.

Table 8.9 – continued

Test	t–value	Degrees of Freedom	Significance (2–tailed)	Mean Difference	Std. Error of Difference
Equality of Means	0.034	72	0.973	0.002	0.5775

PANEL C: MANN–WHITNEY U TEST

Group	Number of Companies	Mean Rank	Sum of Ranks	Z statistic	Significance (2–tailed)
Companies Audited by Non–SELE Members	52	37.41	1,945.50	-0.053	0.958
Companies Audited by SELE Members	22	37.70	829.50		

Table 8.9 shows that the statistics of the t and the Mann–Whitney tests are not significant, indicating that the extent of disclosure by Greek companies audited by SELE member firms is not significantly different from that of companies audited by non–SELE member firms. Thus, Hypothesis H7(G) is not supported and the result is not in line with the prediction of the theory of association that local audit firms which are internationally – affiliated are more likely (than local firms without such affiliation) to have a positive influence on the disclosure levels of their client companies. This result is consistent with that reported by Wallace et al. (1994).

8.4 MULTIVARIATE STATISTICAL TESTS AND INTERPRETATION

8.4.1 Introduction

Section 8.4 answers the third research question posed for Greek companies. Specifically, it reports the results of the multivariate statistical methods employed to investigate whether the variations in the extent of corporate disclosure practices of Greek companies can be explained by the selected corporate characteristics together. This is done through the specification of a multivariate regression model that seeks to explain the extensiveness of disclosure by the Greek sample companies. Section 8.4 also interprets the results of the multivariate statistical tests and evaluates the robustness of the regression model developed.

8.4.2 Correlations Between the Independent Variables

The correlation matrix presented in Table 8.10 indicates that the correlations between the proxies used to measure company size are high (0.836 between log capitalisation and log assets and 0.891 between log sales and log assets). Hence, multicollinearity may be a problem if all three size variables are entered into the same regression model. For this reason alternative techniques were used to investigate and control for the potential for multicollinearity. The results are reported in Section 8.5.3.

TABLE 8.10:
GREECE: PEARSON PAIRWISE CORRELATIONS
BETWEEN THE INDEPENDENT VARIABLES

	LGASS	LGCAP	LGSAL	LGAGE	PRMAR	ROCE	LGCUR	CONGL	MANUF	OTHER	LISTI	AUDIT
LGASS	1.000	0.836**	0.891**	-0.045	0.199	0.170	-0.278*	-0.062	0.056	-0.007	0.189	0.320**
LGCAP	0.836**	1.000	0.712**	-0.038	0.201	0.333**	-0.053	-0.220	0.105	0.070	0.099	0.280*
LGSAL	0.891**	0.712**	1.000	-0.142	0.438**	0.339**	-0.382**	0.042	0.055	-0.089	0.072	0.292*
LGAGE	-0.045	-0.038	-0.142	1.000	-0.252*	-0.339**	0.126	0.097	0.015	-0.093	0.402**	0.140
PRMAR	0.199	0.201	0.438**	-0.252*	1.000	0.415**	-0.147	-0.014	0.045	-0.035	-0.099	-0.016
ROCE	0.170	0.333**	0.339**	-0.339**	0.415**	1.000	0.021	-0.040	-0.180	0.214	0.267*	0.002
LGCUR	-0.278*	-0.053	-0.382**	0.126	-0.147	0.021	1.000	-0.065	0.094	-0.043	0.154	-0.224
CONGL	-0.062	-0.220	0.042	0.097	-0.014	-0.040	-0.065	1.000	-0.410**	-0.388**	0.025	-0.088
MANUF	0.056	0.105	0.055	0.015	0.045	-0.180	0.094	-0.410**	1.000	-0.682**	0.225	0.047
OTHER	-0.007	0.070	-0.089	-0.093	-0.035	0.214	-0.043	-0.388**	-0.682**	1.000	-0.248*	0.023
LISTI	0.189	0.099	0.072	0.402**	-0.099	-0.267*	0.154	0.025	0.225	-0.248*	1.000	0.126
AUDIT	0.320**	0.280*	0.292*	0.140	-0.016	0.002	-0.224	-0.088	0.047	0.023	0.126	1.000

* = correlation is significant at the 0.05 level (2–tailed)

** = correlation is significant at the 0.01 level (2–tailed)

8.4.3   Results of Regression Procedures

A summary of the results of the backward stepwise regression are presented in Table 8.11. Initially (Model 1) all possible predictors were entered into the model. The first variable to be excluded is log age. The fact that its removal has no impact on neither R^2 nor the unstandardised B coefficients of the variables remaining in the model, indicates that its multiple correlation with the other explanatory variables is very high. The next variables to be removed are audit, profit margin and log current. R^2 decreases from 0.449 to 0.444 whilst the unstandardised B coefficients of the variables remaining in the model do not change significantly. In the sixth model, when log assets is removed from the model, the unstandardised B coefficient of the other size variable (log capitalisation) changes from -0.836 to -1.364 and becomes significant (significance changes from 0.321 to 0.026). Nevertheless, adjusted R^2 increases only from 0.385 to 0.386. This reflects the high collinearity between those two size variables. When the third size variable (log sales) is removed from the model (Model 8) log capitalisation becomes highly significant (0.005) whilst the unstandardised B coefficients of the variables remaining in the model do not change significantly. In the final model (Model 10) the variables remaining in the model are listing, others and log capitalisation. Those three variables explain 39.3 per cent of the variance in the Greek corporate disclosure practices. When the regression was run using the forward stepwise procedure the results were identical. The variable others explains 23.7 per cent of the variation in the corporate disclosure of Greek companies. When variable listing was entered into the regression adjusted R^2 rose to 0.313. The last variable entered into the regression was log capitalisation which raised adjusted R^2 to 0.393. The results suggest that Greek companies that are listed on the main market of the ASE, are small (in terms of their market capitalisation) or are classified as conglomerates or manufacturers, significantly disclose more extensive mandatory information than other companies.

PANEL A: MODEL SUMMARY[a, b, c, d]

Model	Variables		R	R Square	Adjusted R Square	Std. Error of the Estimate
	Entered	Removed				
1	AUDIT ROCE CONGL LGCUR LISTI PRMAR OTHER LGASS LGAGE LGCAP LGSAL[e, f]		0.670	0.449	0.351	1.8172
2[g]		LGAGE	0.670	0.449	0.361	1.8027
3[h]		AUDIT	0.669	0.448	0.370	1.7895
4[i]		PRMAR	0.668	0.447	0.379	1.7776
5[j]		LGCUR	0.666	0.444	0.385	1.7690
6[k]		LGASS	0.661	0.437	0.386	1.7667
7[l]		ROCE	0.659	0.434	0.392	1.7578
8[m]		LGSAL	0.656	0.431	0.398	1.7498
9[n]		CONGL	0.647	0.418	0.393	1.7568
10[n]		CONGL[o]	0.647	0.418	0.393	1.7568

a. Dependent Variable: RELAT
b. Method: Enter
c. Method: Backward (Criterion of F–to–remove >=0.10)
d. Method: Stepwise (Criteria: Probability–of–F–to–enter<=0.05, Probability–of–F–to–remove>=0.10)
e. Independent Variables: (Constant), AUDIT, ROCE, CONGL, LGCUR, LISTI, PRMAR, OTHER, LGASS, LGAGE, LGCAP, LGSAL
f. All requested variables entered
g. Independent Variables: (Constant), AUDIT, ROCE, CONGL, LGCUR, LISTI, PRMAR, OTHER, LGASS, LGCAP, LGSAL
h. Independent Variables: (Constant), ROCE, CONGL, LGCUR, LISTI, PRMAR, OTHER, LGASS, LGCAP, LGSAL
i. Independent Variables: (Constant), ROCE, CONGL, LGCUR, LISTI, OTHER, LGASS, LGCAP, LGSAL
j. Independent Variables: (Constant), ROCE, CONGL, LISTI, OTHER, LGASS, LGCAP, LGSAL
k. Independent Variables: (Constant), ROCE, CONGL, LISTI, OTHER LGCAP, LGSAL
l. Independent Variables: (Constant), CONGL, LISTI, OTHER LGCAP, LGSAL
m. Independent Variables: (Constant), CONGL, LISTI, OTHER, LGCAP
n. Independent Variables: (Constant), LISTI, OTHER, LGCAP
o. Probability of–F–to remove = 0.10 limits reached

Table 8.11– continued

PANEL B: ANOVA

Model		Sum of Squares	Degrees of Freedom	Mean Square	F	Signific.
10	Regression	155.201	3	51.734	16.762	0.000
	Residual	216.048	70	3.086		
	Total	371.250	73			

PANEL C: COEFFICIENTS

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Signific	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	92.687	1.551		59.763	0.000		
LISTI	2.046	0.576	0.337	3.552	0.001[p]	0.925	1.081
OTHER	-1.805	0.434	-0.393	-4.160	0.000	0.930	1.076
LGCAP	-0.542	0.168	-0.296	-3.215	0.002	0.981	1.020

PANEL D: EXCLUDED VARIABLES

Variables	Beta In	t	Signific.	Partial Correlation	Collinearity Statistics		
					Toler.	VIF	Minimum Tolerance
LGAGE	0.028	0.274	0.785	0.033	0.832	1.202	0.777
AUDIT	0.050	0.521	0.604[p]	0.063	0.911	1.098	0.911
PRMAR	0.006	0.060	0.952	0.007	0.938	1.066	0.907
LGCUR	-0.095	-1.027	0.308	-0.123	0.972	1.029	0.903
LGASS	0.070	0.412	0.682	0.050	0.288	3.471	0.288
ROCE	-0.031	-0.302	0.764	-0.036	0.784	1.275	0.784
LGSAL	0.117	0.884	0.380	0.106	0.472	2.117	0.468
CONGL	0.126	1.250	0.215	0.149	0.810	1.235	0.793

PANEL E: COLLINEARITY DIAGNOSTICS

Mode	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	LISTI	OTHER	LGCAP
10	1	3.321	1.000	0.00	0.01	0.03	0.00
	2	0.575	2.402	0.00	0.04	0.80	0.00
	3	9,489E-02	5.915	0.03	0.95	0.18	0.04
	4	9,144E-03	19.056	0.97	0.00	0.00	0.96

p Given that Hypotheses H6(G) (for the influence of listing status on Greek corporate disclosure) is directional, the significance level should be for an 1–tailed test. This implies that the significance level should be halved. If this is done the listing status variable is more significant.

The finding that Greek companies which are classified as others disclose significantly less information (and that conglomerate and manufacturing companies disclose significantly more information) is consistent with the industry specific factors proposition and corroborates those reported by Cooke (1991) and Wallace and Naser (1995). Additionally, the finding that Greek main market listed companies disclose significantly more information than parallel market listed companies is consistent with the prediction of agency theory and is in line with the results of Singhvi and Desai (1971). The result that Greek larger companies disclose less extensive information than smaller companies is in contrast to the results reported in most single country disclosure studies (e.g. Cooke, 1991). However, it can be explained by theoretical, environmental, empirical and other considerations (a detailed discussion is presented in Chapter 9).

Following Cooke (1989) the potential for multicollinearity was also controlled by running three different regression routines, with each routine incorporating only one of the three size variables. The regression routine with log capitalisation produced identical results with those of the backward stepwise regression model (reported in Panels B – E of Table 8.11). On the other hand, the models that used log assets and log sales (as proxies for company size) had less explanatory powers (adjusted R^2 35.6 and 31.3 per cent respectively). All these regression routines revealed a negative association between company size and Greek corporate disclosure.

Alternative predictor selection procedures were also employed, such as forward selection, but their results were similar to those of the reduced and full regression models using the backward stepwise and the forward stepwise procedures. The results of all those regression routines are, therefore, not reported in the thesis.

8.5   ASSESSING THE ROBUSTNESS OF THE REGRESSION MODEL

8.5.1   Economic a priori Criteria

On the basis of economic criteria the model developed for Greek companies is consistent with the predictions of the industry–specific factors proposition and agency and political cost theories. The finding that Greek conglomerate and manufacturing companies disclose significantly more information than companies belonging in the others industrial group is consisted with the industry specific factors proposition; that is, that industry specific factors (such as the complexity and nature of operations of certain industries) can make companies within those industries disclose more extensive information. This result corroborates those reported by Cooke (1991) and Wallace and Naser (1995), who reported that Japanese manufacturing and Hong Kong conglomerate companies disclose more extensively than companies in other industry groups.

The finding that Greek main market listed companies disclose significantly more information than parallel market listed companies is consistent with the prediction of agency theory. If we assume that main market listed companies are more likely to have a greater number of shareholders (and hence have greater agency problems), then we can expect them to disclose more extensively than parallel market listed companies, in an attempt to reduce their agency costs. This result is in line with that of Singhvi and Desai (1971), who found that U.S. main market listed companies disclose more extensively than companies whose shares are listed on the OTC market.

On the other hand, the finding that Greek larger companies disclose less extensive information than smaller companies contradicts the empirical evidence provided by

most single country disclosure studies, where large companies have been found to disclose significantly more information than smaller ones. This finding, however, is in line with the argument derived from political cost theory: if large companies are considered to be more politically sensitive than smaller ones, they may disclose less information in an attempt to avoid the increased attention caused by increased disclosure and, hence, reduce the likelihood of political action. A detailed discussion of this result is provided in Chapter 9.

The multivariate analysis also revealed that auditor type, profitability, liquidity and age, do not have any significant relationship with the extent of Greek corporate disclosure. The insignificance of the auditor type variable may be attributed to the distinctive nature of Greek market for audit services. This market has recently been liberalised and there is evidence that the indigenous auditors have retained the majority of audit assignments, with SOL SA being the largest audit firm (Caramanis, 1997). Thus, although it is usually suggested that the big international firms, being larger and better known than local firms, exert more influence over the disclosure policies of their clients, this relationship does not seem to exist in Greece. One reason may be that the local affiliates of the big international firms, having been admitted to the register of qualified auditors in the last couple of years, are not perceived to offer a better quality of service than indigenous auditors. As a result, the clients of the big international firms are not more likely to accede to advice regarding the quality of their CAFSs than the clients of the indigenous auditors.

In the case of profitability, although the bivariate tests showed that it is negatively related to the extent of Greek corporate disclosure, the multivariate OLS model revealed no significant relationship. This may be due to minor multicollinearity effects between profitability and the variables included in the model. In order to investigate for this possibility the partial correlation of ROCE with relative scores, while controlling for the effects of log capitalisation and listing, was computed. The correlation

becomes insignificant (p=0.448), indicating that most of the influence of profitability has been captured by the other variables included in the model.

Finally, company age and liquidity have not been found to be significant in either the bivariate or multivariate analyses. This finding is consistent with the results of most prior empirical research that examined these variables (e.g. Wallace and Naser, 1995) and may indicate that company liquidity and age are not very important explanatory variables of corporate disclosure in many countries.

8.5.2   Statistical Criteria

The standard error of the estimate of the regression line (1.76) is very low, when compared to the standard errors of regression lines reported in other studies (e.g. Kasharhmeh, 1995; Cooke, 1989). It is also lower than the standard error of the regression line reported in Chapter 7 for Cypriot companies (4.48). This indicates that the disclosure of Greek companies is more predictable than the disclosure of Cypriot companies and companies examined in some other studies. Additionally, the adjusted R^2 of the Greek model, although not being among the highest reported in the literature, it has a reasonable explanatory power and it compares favourably to those reported in some other studies on developing countries (e.g. Kasharhmeh, 1995).

In an attempt to determine whether the explanatory power of the model can be improved, other variables found to be explanatory of corporate disclosure in other countries were incorporated in the model (e.g. gearing ratio and dividend ratio). Nevertheless, the explanatory power of the model could not be increased. This suggests that there might be other variables, such as ownership dispersion and ethnicity of management, that may influence the disclosure practices of Greek companies. Unfortunately, it was not possible to test for the effects of those variables due to the lack of relevant data.

8.5.3 Econometric Criteria

In addition to the correlation matrix method, the potential for multicollinearity was also evaluated with the use of VIF and CI. Table 8.11 reveals that the VIF of all variables included in the regression model is less than 10, while their condition indexes are less than 30. Hence, based on Gujarati (1995) and Kennedy (1996), it can be concluded that multicollinearity is not a major problem as the VIF and CI values of all variables are within acceptable limits.

Homoscedasticity was tested by a visual inspection of the scatterplot of standardised residuals against standardised predicted values (Figure 8.2). The scatterplot shows that the spread of the residuals does not change with the predicted values, suggesting the absence of heteroscedasticity.

FIGURE 8.2:
GREEK MODEL: SCATTERPLOT OF STANDARDISED
RESIDUALS AGAINST STANDARDISED PREDICTED VALUES

Regression Standardised Residual
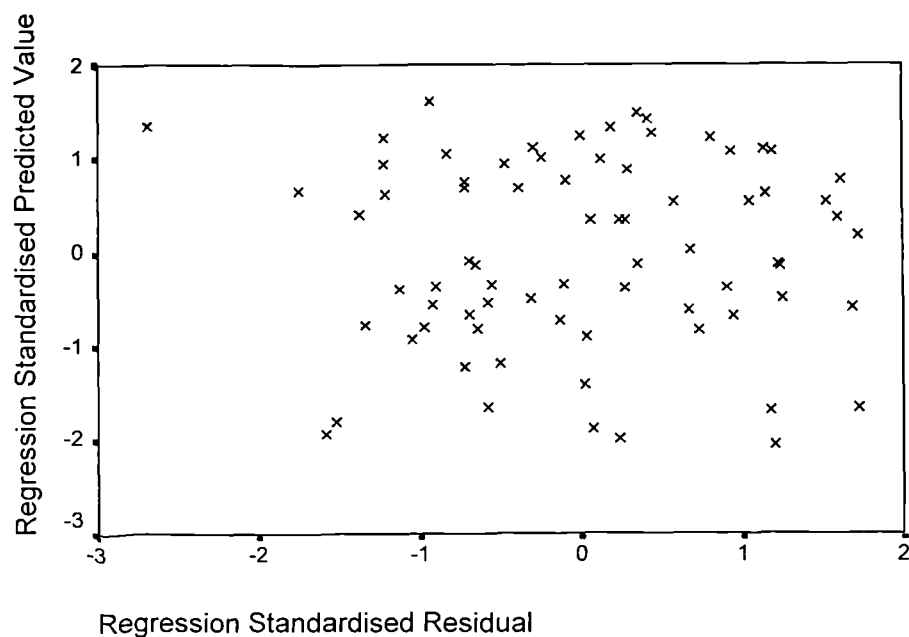
The normality of the disturbances was examined using different methods. Figure 8.3

presents a normal p–p plot of the standardised residuals of the reduced regression

model. The p–p plot shows that the disturbances are fairly normally distributed as the

data points cluster around the diagonal line. Additionally, a Kolmogorov–Smirnov test

for normality reveals that the standardised residuals have no significant departure

from normality (Z statistic is 0.592 and p=0.875).

Apart from the homoscedasticity test, the scatterplot of standardised residuals against

standardised predicted values (Figure 8.2) was also used to examine the assumption

of linearity and check for the omission of important variables and incorrect functional

form. The scatterplot shows no patterns, confirming that the assumption of linearity is

reasonably safe and that there are no major specification errors.

FIGURE 8.3:
GREEK MODEL: NORMAL P–P PLOT OF THE
STANDARDISED RESIDUALS

Observed Cumulative Probability
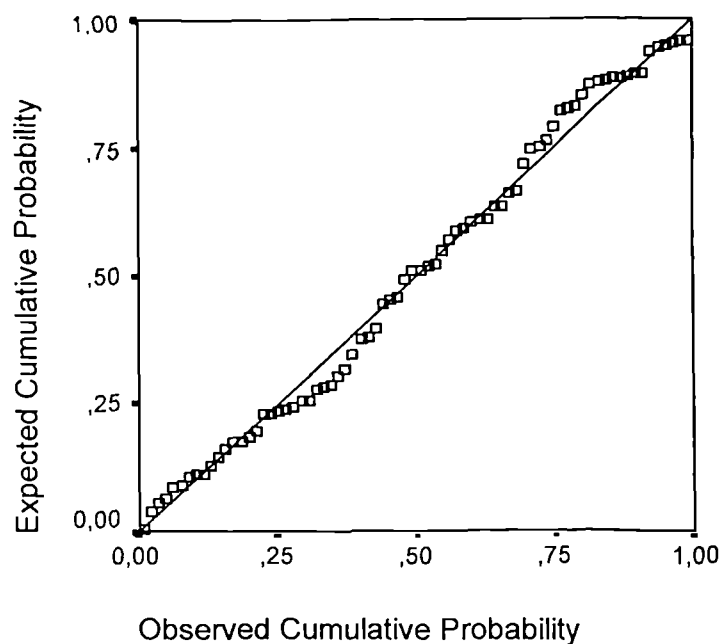
Finally, in order to investigate the possibility of interaction effects between the predictor variables, several scatterplots of the relative scores with each independent variable were plotted, setting markers by different qualitative variables and fitting straight lines for each sub–group. No peculiar relationships were found, indicating the absence of interaction effects.

8.6　　SUMMARY

This chapter answered the first, second and third research questions posed for Greek companies.　Section 8.2 presented and discussed the descriptive statistics of the Greek relative corporate disclosure scores which aimed to measure disclosure extensiveness by Greek companies.　The disclosure practices of the Greek sample companies, on the whole, appear to be extensive, as the minimum, maximum and mean disclosure scores reported compare favourably with those reported in previous mandatory disclosure studies.　Section 8.3 presented and interpreted the results of the various bivariate and multivariate statistical tests performed on the second and third research questions posed for Greek companies.　The results of the various bivariate statistical tests performed provided evidence that there is a significant association between the extent of disclosure by Greek companies and company size, profitability, listing status and industry type.　A multivariate regression model was specified that sought to investigate whether the variations in the extent of disclosure practices by the Greek sample companies could be explained by the selected corporate characteristics together.　As in the case of Cyprus, the bottom–up specification methodology and the OLS regression procedure have been used.　Several diagnostic tests confirmed that the model was reasonably well specified and that there were no serious violations of the OLS assumptions.　Based on the regression model reported in this chapter, which has an adjusted R^2 of 39.3 per cent and a standard error of the estimate of 1.76, the fitted equation of the disclosure index for Greek companies is:

$$\hat{Y}_j = 92.687 - 0.542 \, Log \, Capitalisation_j - 1.805 \, Other_j + 2.046 \, Listing_j$$

where:

$\hat{Y}_j$ = *the estimate of the true disclosure score that the jth sample company will*

earn under the 1996 disclosure regulatory regime in Greece.

In sum, the empirical evidence suggests that the variations in the extent of corporate

mandatory disclosure practices of Greek companies is explained by the intercept and a

company's size, industry type and listing status. A detailed discussion and comparison

of these results with those found for Cypriot companies is provided in Chapter 9.

PART IV

CONCLUSION

CHAPTER 9

A COMPARATIVE ANALYSIS OF THE CYPRIOT AND GREEK CORPORATE DISCLOSURE PRACTICES

9.1   INTRODUCTION

The fourth research question posed in Chapter 1 was: what are the similarities of, and differences between, the relationships between corporate characteristics and corporate mandatory disclosure found for Cypriot companies and those found for Greek companies?   Chapter 9 answers the fourth research question by undertaking qualitative and quantitative comparisons between the results obtained for research questions 1, 2 and 3. However, before the comparative analysis is made and in order to assist in the interpretation of the empirical results, Section 9.2 summarises the main differences between the Cypriot and Greek accounting environments found in Chapter 2.

It should be noted that the comparison between the Cypriot and Greek corporate disclosure practices is made using an indirect approach. As noted in Chapter 4, a direct comparison between the corporate disclosure practices in different countries can be made using a direct approach (that is, using a common disclosure index) when all of the following conditions are satisfied: (1) the countries concerned are comparable in terms of their socio–economic development; (2) the perceptions of the objectives of financial statements and the order of importance of disclosure items are broadly the same in both countries; and (3), the countries compared have the same disclosure minima. Since in the case of Cyprus and Greece these conditions are not satisfied the comparison is made using a separate index for each country (that is, effectively carrying out two single country disclosure investigations and making an indirect comparison of the results).

273

9.2 COMPARISON OF ACCOUNTING ENVIRONMENTS

9.2.1 Internal Accounting Environments

The British, as the last colonial rulers of Cyprus, introduced important socio–economic reforms in the island. Nonetheless, Cypriot accounting has (since then) tended to respond to its internal environmental stimuli. The common law legal system, along with the political turbulence of the post–independence years, contributed to the development of a flexible accounting system which has tended to be adaptable to individual company circumstances. The two main economic phases of the post–independence years have also been influential. The first was the 1960 – 1974 period, which was marked by political unrest and moderate economic development. During this period socio–economic development was not a high priority and the role of accounting was mainly that of a bookkeeping system. Then came the period from 1974 to the present, which was marked by a recovery from the 1974 catastrophe and an unprecedented economic boom. During this period accounting has revealed a capacity for responses to a wide variety of users' needs for sophisticated information and has extended into management consultancy and business services. Another characteristic of Cypriot accounting is that it has developed as an independent discipline. The main factors that contributed to this have been the existence of broad legal rules, the lack of a comprehensive conceptual framework of accounting and the fact that the government tended not to intervene in accounting matters. All of the above factors enabled Cypriot accountants to develop a self–constructed and self–regulated framework which has been flexible enough to reflect the needs and priorities of the business and socio–economic environment. In this respect, the Cypriot accounting system is more similar to the Anglo–Saxon rather than the Franco–German accounting system.

274

In contrast, accounting in Greece has followed a uniform development pattern and the government has, usually, been using it as an instrument of government policy. There has traditionally been a preference for extensive statutory control. Legal stipulations provide in great detail the accounting rules and regulations and the form and content of financial statements. The exercise of professional judgement has, traditionally, been restricted and the accountant's main task has been to interpret the law. These characteristics have mainly been the product of specific environmental factors. For example, being under Ottoman occupation from 1453 to 1830, Greece was left out of the mainstream of the Western world's main socio–economic achievements. Upon independence a decision was taken to adopt the French legal, commercial and accounting systems. As a result, the accounting system adopted was based on the French accounting values, which was (and is) characterised by more statutory control and uniformity than a typical Anglo–Saxon accounting system (e.g. Cyprus). Additionally, since independence Greece has gone through a series of national and civil wars that brought it to its knees. It is plausible that given the political and social unrest throughout the last two centuries, the government did not have either the time or the will to undertake a radical change of the transplanted accounting system. Also, the consequential economic underdevelopment of the country did not necessitate a sophisticated accounting system and accounting was mainly equated with bookkeeping. Perhaps the most distinctive feature of Greek accounting, which differentiates it from most other European and American accounting systems, is the fact that it has been highly politicised. This can mainly be attributed to the traditional "*party politics phenomenon*" which has resulted in frequent changes of the short and long–term socio–economic objectives and policies, depending on the priorities of the dominating political party. There is also a tendency for Greek people to mistrust accounting as a means of generating misleading information for tax evasion and pricing policies. It is possible, however, that as the Greek politico–economic system becomes more integrated with the other European systems, the Greek accounting environment will undergo some changes.

9.2.2   External Accounting Environments

One of the major external environmental factors on Cypriot accounting has been the IASs. Although not backed by statute, the IASs are generally accepted as formalisation of existing good practice and are believed to be followed by the majority of Cypriot companies. Another critical external environmental factor has been the presence and growth of the international accounting firms, which have acted as catalysts in the development of an independent accounting profession and significantly influenced the development of a respectable level of professional accounting education. At the beginning of the new millennium, Cyprus is facing a new challenge that is expected to have an important impact on local policies and practices: EU entry. Though not radical, the impact of the forthcoming adoption of the relevant EU Directives is expected to have an important impact on local accounting and disclosure practices. It is expected that it will introduce greater legal and governmental influence over financial accounting and reporting.

In the case of Greece, however, the EU has already been a very influential external environmental factor. Through its Directives, the EU brought important changes to the Greek accounting system that had existed for 160 years, resulting in a move towards more substance and fairness in accounting. Pressures from the EU have also led to the abolition of the quasi–governmental structure of the established accounting body and the liberalisation of the Greek accounting profession. In contrast to Cyprus, the influence of the IASs and the international accounting firms on Greek accounting have not been very significant. For example, many IASs (such as those dealing with leasing and deferred tax) are still in conflict with Greek accounting regulations.

9.2.3 Regulatory Frameworks for Accounting

As already noted the regulatory framework for financial accounting and reporting in Cyprus is characterised by broad rules laid down by statute, which are complemented by the IASs and the CSE's regulations. Furthermore, the Cypriot accounting system is influenced by the British accounting traditions. For example, the Cypriot Companies Act is a copy of the UK 1948 Act and the accounting profession is modelled on the ACCA and the ICAEW. Commenting on the impact of such transplantation on the development of accounting in many ex–British colonies, Briston (1978, p.108) contributes to an understanding of the development of Cypriot accounting:

> *Once a reporting system and a nucleus of an accounting profession have been established in this way, it becomes very difficult to modify the system.... Furthermore, the British system tends to be extended because, after independence, the small nucleus of qualified accountants will often create a monopolistic and elitist professional body which is virtually a carbon copy of the Institute of Chartered Accountants.*

The Cypriot accounting profession has flourished within an unregulated environment, whilst accounting education is heavily influenced by the British professional qualifications as the majority of accounting students are studying for the ACCA and the ICAEW qualifications. The CSE, which has been established in 1996, is at a developing stage. Furthermore, the regulatory system of the CSE is marked by the absence of a formal financial reporting watchdog which acts, and is seen to act, to ensure that accounting and reporting regulations are complied with.

Greek accounting, on the other hand, is influenced by French accounting traditions. There is strict prescription of accounting rules, with company and tax laws setting out in detail the valuation and measurement rules to be followed and the form and content of financial statements. Another characteristic of Greek accounting is the influence of financial statements by tax rules. Even though the incorporation of EU Directives in

Greek law has enabled company law to regain, to some extent, influence on accounting matters from tax law, Greek financial statements continue to a great extent to be tax oriented. Other important differences between the Cypriot and Greek regulatory frameworks of accounting is that in Greece an independent accountancy professional body was established only in 1992 and that accounting education has been relatively underdeveloped. For example, for many years accounting was considered a second–class course at Greek universities. Nevertheless, this situation is gradually changing. With the introduction of degree–level courses in universities, the availability of the local SOE qualification and the introduction of ACCA training, accounting education in Greece has a lot of scope for development. In contrast to Cyprus, however, the Greek stock market has been making significant strides and experiencing remarkable growth rates. The recent modernisation and internationalisation, the relaxation of exchange controls and the arrival of foreign investors are expected to increase the pressure for improvement in corporate reporting and disclosure practices. Nevertheless, as in the case of Cyprus, there is no formal financial reporting watchdog which systematically inquires into annual accounts of Greek companies to ensure conformity with regulations.

9.3 COMPARISON OF CORPORATE DISCLOSURE PRACTICES

9.3.1 Summary of Empirical Results

Tables 9.1 – 9.3 summarise the results of the empirical analyses carried out in Chapters 7 and 8. Table 9.1 reports the main descriptive statistics for the relative disclosure scores. The table shows that the mean disclosure scores of the 50 Cypriot and the 74 Greek sample companies are 84.7 and 88.8 per cent respectively. The range of the disclosure indexes for Cypriot companies varies from 66.2 to 97.0 per cent, while that for Greek companies ranges from 83.3 to 92.8 per cent. Respectively, the standard deviations are 7.1 and 2.3 per cent for Cypriot and Greek companies.

TABLE 9.1
SUMMARISED DESCRIPTIVE STATISTICS OF THE DISCLOSURE SCORES

DISCLOSURE SCORES	CYPRUS	GREECE
Mean	84.7	88.8
Maximum	97.0	92.8
Minimum	66.2	83.3
Std. Deviation	7.1	2.3
Number of Observations	50	74

The above statistics signify that the disclosure practices of the sample companies in both countries, on the whole, appear to be extensive when compared to the corporate disclosure practices reported in other mandatory disclosure studies (e.g. Wallace et al., 1994 and Patton and Zelenka, 1997). The mean disclosure scores indicate that,

279

on average, the disclosure of Greek companies is higher than those of Cypriot companies in terms of the items expected to be disclosed in each country. Furthermore, the standard deviations indicate that the variability in the disclosure practices of Greek companies is less than those of Cypriot companies.

Nevertheless, the above comparison should be treated with caution as the disclosure regulatory frameworks in the two countries are different, and separate disclosure measuring instruments have been used. It may, therefore, be possible that the comparison of the mean disclosure scores is biased in favour of the country with the more stringent disclosure regulations (Greece). The stringent disclosure regulations in Greece may also explain the low standard deviation of the index for Greek companies. This is because in Greece the law sets out the corporate disclosure requirements in a great extent of detail and, effectively, acts as a detailed disclosure checklist which companies have to go through. Additionally, since what a company must disclose is dictated by law, any departure from disclosure regulations is liable to legal action. This is likely to reduce the possibility of the reporting accountant exercising his/her own judgement about the items to be disclosed (even though judgement needs to be exercised in deciding the extent of detail with which mandatory items are to be disclosed). In contrast, in Cyprus the main source of disclosure requirements is the IASs which do not have the backing of the law. Thus, the reporting accountant has more flexibility to determine the extent of detail to be disclosed about a particular item. It may, therefore, be the case that the greater variability in the disclosure scores of Cypriot companies is a result of this liberal nature of the local disclosure regulations.

Table 9.2 presents a summary of the explanatory power of the selected corporate characteristics as revealed by the regression analyses.[64] It can been seen that the

---

[64] Bivariate tests were carried out as it is common in disclosure studies to commence the data exploration using theses methods. However, in this section the results of the bivariate tests are not compared as it has been cautioned in the literature that the use of bivariate analysis to study the effect of corporate disclosure might be unsuitable since disclosure depends on the joint effect of many factors (Adhikari and Tondkar, 1992).

TABLE 9.2
EXPLANATORY POWER OF CORPORATE CHARACTERISTICS
AS REPORTED BY THE MULTIVARIATE STATISTICAL TESTS

CORPORATE CHARACTERISTIC	HYPOTHESISED DIRECTION OF EFFECT ON CORPORATE DISCLOSURE	CYPRUS	GREECE
H_1 – Company Size	Unknown	**0**	✓ (-)
H_2 – Company Age	Unknown	N/A	**0**
H_3 – Company Profitability	Unknown	✓ (+)	**0**
H_4 – Company Liquidity	Unknown	**0**	**0**
H_5 – Industry–type	Unknown	✓ (+)[1]	✓ (-)[2]
H_6 – Listing Status	– Positive for Cypriot listed companies – Positive for Greek main–market listed companies	✓ (+) N/A	N/A ✓ (+)
H_7 – Auditor–type	– Positive for Cypriot Big 5 audited companies – Unknown for Greek companies	**0** N/A	N/A **0**

KEY

✓ (+)	= Significant positive relationship
✓ (-)	= Significant negative relationship
✓ (+)[1]	= Significant positive relationship with Cypriot conglomerate companies
✓ (-)[2]	= Significant negative relationship with Greek other companies
0	= No significant relationship
N/A	= Not applicable

results of the empirical analyses of Cypriot companies are in line with the results of most previous studies (e.g. Wallace et al., 1994, Wallace and Naser, 1995). Cypriot companies which are more profitable, are classified as conglomerates or whose shares are listed on the CSE, tend to disclose significantly more extensive mandatory information in their CAFSs. In the case of Greece, the results of the empirical analyses corroborate those found for Cypriot companies as far as listing status and industry type are concerned. Greek companies which are listed on the main market of the ASE or are classified as conglomerates or manufacturing, tend to disclose significantly more extensive mandatory information than other companies. However, an interesting relationship between company size and Greek corporate disclosure has been revealed: larger Greek companies tend to disclose significantly less information than smaller ones.

Table 9.3 presents a summary of the Cypriot and Greek regression models. The table indicates that the regression line of the Greek model has a lower standard error than the regression line of the Cypriot model (1.77 versus 4.48), indicating that the disclosure of Greek companies is more predictable than those of Cypriot companies. Additionally, the table indicates that the fitted model for Cypriot companies has a higher explanatory power (adjusted R^2 = 60 per cent) than the fitted model for Greek companies (adjusted R^2 = 39 per cent). The lower adjusted R^2 in the case of the Greek model reflects, to some extent, the smaller variation in the disclosure practices of the Greek companies. This is consistent with the fact that the variance of the Greek disclosure indexes is smaller than that of the Cypriot indexes. Nevertheless, as previously noted, this comparison should be treated with caution as the disclosure regulatory frameworks in the two countries are different and separate disclosure measuring instruments have been used.

TABLE 9.3
SUMMARISED REGRESSION MODELS

PANEL A: VARIABLES

VARIABLE	COEFFICIENTS	
	CYPRIOT MODEL	GREEK MODEL
Intercept	78.68	92.68
Log Capitalisation	N/A	-1.25
ROCE	0.18	NI
Conglomerates	8.70	NI
Others	NI	-1.81
Listing	8.44	2.0

PANEL B: STATISTICS

STATISTIC	CYPRIOT MODEL	GREEK MODEL
Adjusted R Square	0.60	0.39
Std Error of the Estimate	4.48	1.76
F statistic	25.36	16.76
Significance of F statistic	0.0000	0.0000
Number of Observations	50	74
Residual Degrees of Freedom	46	70

KEY

N/A = Not applicable
NI   = Not included in the model

9.3.2 Deriving a "Minimal Model"

In addition to the indirect comparison between the Cypriot and Greek corporate disclosure practices presented in the previous section, a more direct comparison was attempted. This was made by fitting two models (one for each country) with similar explanatory variables in an attempt to find a "minimal model". A "minimal model" is defined as one which satisfies the following criteria: (1) it comprises the highest number of significant explanatory variables; (2) these explanatory variables are also included in the fitted models for both Cyprus and Greece; and (3), the model has an explanatory power (adjusted R^2) which is not materially different from that of the original models developed in Chapters 7 and 8. Such a minimal model can enable a more direct comparison to be made, because any similarities or differences (between the impact of specific corporate characteristics on national corporate disclosure practices) can emerge more clearly.

Different combinations of similar independent variables were fitted into a regression model for each country. The variables were chosen on the basis of their inclusion in the initial fitted models and their level of significance. The most significant results are presented in Table 9.4. It is noticeable that the results of the above models are not significantly different from those reported in Chapters 7 and 8. The table indicates that the impact of listing and industry type on the disclosure practices of Cypriot and Greek companies is similar. Listing is included in all eight models and its coefficient is, in all cases, significantly positive. In the case of industry–type the impact, although not identical, is similar. When both conglomerate and other variables are included in the models (Model 1), the conglomerate variable is significantly positive for Cypriot companies and other variable is significantly negative for Greek companies. When the conglomerate variable is excluded from the models (Model 3), the coefficient of the other variable is significantly negative for both Cypriot and Greek companies. Additionally, when the other variable is excluded from the models (Model 4), the

284

coefficient of the conglomerate variable is significantly positive for both Cypriot and Greek companies. On the other hand, the impact of company size on the extent of Cypriot and Greek corporate disclosure is clearly different. In the case of Greece, the coefficient of log assets is significantly negative in all four models. In the case of Cyprus, log assets is significantly positive in the case of Models 3 and 4. In the case of Models 1 and 2, the impact of log assets is not significant because of the existence of other more influential variables in the model (listing and conglomerates).

TABLE 9.4
SUMMARY OF DIFFERENT REGRESSION MODELS WITH SIMILAR EXPLANATORY VARIABLES

	MODEL 1		MODEL 2		MODEL 3		MODEL 4	
	Cyprus	Greece	Cyprus	Greece	Cyprus	Greece	Cyprus	Greece
Variables Entered:								
• Listing	✓	✓	✓	✓	✓	✓	✓	✓
• Log Assets	✓	✓	✓	✓	✓	✓	✓	✓
• Conglomerate	✓	✓	✓	✓			✓	✓
• Other	✓	✓	✓	✓	✓	✓		
• ROCE	✓	✓						
Adjusted R²	0.599	0.373	0.587	0.373	0.518	0.356	0.592	0.284
Std Error of the Estimate	4.4776	1.7858	4.5423	1.7853	5.063	1.8095	4.5132	1.9077
F	15.610	9.682	18.399	11.870	16.485	14.461	24.711	10.669
F Significance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unstandardised Coefficients:								
• Listing	7.707	2.007	7.240	2.168	6.944	2.100	7.155	2.671
• Log Assets	0.488	-0.377	0.738	-0.419	1.010	-0.436	0.801	-0.428
• Conglomerate	7.444	1.011	7.562	0.986			8.155	1.735
• Other	-0.934	-1.504	-0.997	-1.579	-3.303	-1.898		
• ROCE	0.137	-1.6E-02						
Significance:								
• Listing	0.000	0.002	0.000	0.001	0.000	0.001	0.000	0.000
• Log Assets	0.271	0.046	0.079	0.023	0.030	0.019	0.049	0.029
• Conglomerate	0.001	0.085	0.001	0.092			0.000	0.003
• Other	0.545	0.003	0.524	0.002	0.040	0.000		
• ROCE	0.136	0.331						

KEY

✓   = Variables entered in the model

The conclusion emerging from the above analysis is clear. In both Cyprus and Greece listed companies and companies classified as conglomerates tend to disclose more extensive mandatory information than unlisted and non–conglomerate companies. On the other hand, while larger Cypriot companies tend to disclose more extensive mandatory information than Cypriot smaller companies, their Greek counterparts tend to disclose less extensive information than Greek smaller companies.

9.4 DISCUSSION OF MAIN EMPIRICAL RESULTS

9.4.1 Listing Status and Corporate Disclosure

In spite of the environmental differences between Cyprus and Greece there is some evidence that the influence of listing status on Cypriot and Greek corporate mandatory disclosure is similar. The empirical evidence presented in this study suggests that Cypriot listed and Greek main market listed companies tend to disclose more extensive mandatory information than Cypriot unlisted and Greek parallel market listed companies.

These findings are consistent with the theoretical predictions of *agency theory*. If listing on the CSE or the main market of the ASE implies more shareholders and more potential conflicts between managers (as agents) and capital providers (as principals), this can lead to higher agency costs which decrease the value of the company to the detriment of both groups. A plausible explanation can be that managers of Cypriot listed and Greek main market listed companies try to reduce their agency costs by disclosing more information in their CAFSs, in order to assure their shareholders and the market in general, that they are not exploiting their fiduciary positions for personal gains.

Additionally, the existence of a statistically significant relationship between the extent of disclosure in Cypriot CAFSs and the independent variable listing status is consistent with the theoretical predictions of *capital need* and *disclosure costs theories*. A plausible explanation is that Cypriot managers may try to reduce the cost of capital of their companies through the disclosure of more information. If Cypriot listed companies are more dependent on the stock market for their capital needs than Cypriot unlisted companies, then they are likely to disclose more extensive

information because they possibly have more to gain by such disclosure. This is because more information is likely to reduce investors' uncertainty and their required rates of return, with a consequential reduction in the company's cost of capital and an increase in its market value. Similarly, it is probable that the more extensive mandatory information provided by Cypriot listed companies (compared to Cypriot unlisted companies) is attributed to the lower costs associated with such disclosure. This is because a listed company would have already gathered and published such information in its prospectus (required by the CSE when a company applies for listing), and the marginal direct and indirect costs of such disclosure are likely to be minimal.

9.4.2 Industry Type and Corporate Disclosure

As in the case of listing status, the empirical evidence suggests that in spite of the environmental differences between Cyprus and Greece, the influence of industry–type on national corporate disclosure practices is, on average, similar. There is evidence that Cypriot conglomerate and Greek conglomerate/ manufacturing companies tend to disclose relatively more information in their CAFSs than Cypriot non–manufacturing and Greek non–conglomerate/manufacturing companies. This is consistent with the theoretical prediction (derived from the *industry – specific factors proposition*) that the extent of disclosure in CAFSs is likely to differ across different industries.

A plausible explanation for this evidence may be that the activities of Cypriot conglomerate and Greek conglomerate/manufacturing companies are more complex and generate more reportable events than Cypriot non–conglomerate and Greek non–conglomerate/manufacturing companies. Additionally, Cypriot conglomerate and Greek conglomerate/manufacturing companies may provide more extensive information than other companies, because the scope of their operations subsumes the operations of the other companies. Thus, it can be claimed that on the basis of the empirical evidence reported in this study, in spite of the environmental differences

between Cyprus and Greece the effect of industry–type on the national corporate disclosure practices is similar.

9.4.3   Company Size and Corporate Disclosure

In contrast to the above similarities, there is evidence that the influence of company size on the mandatory disclosure practices of Cypriot and Greek companies is different. In the case of Cyprus, the results of the bivariate analyses indicate that company size associates positively with the extent of mandatory information disclosed, while the multivariate analyses suggest that the relationship, although positive, is insignificant. In the case of Greece, however, both the bivariate and the multivariate analyses reveal that company size has a negative effect on the extent of mandatory information disclosed. Although this result is inconsistent with those of most previous studies (e.g. Cerf, 1961 and Cooke, 1991), it can be explained by theoretical, environmental, empirical and other considerations.

Firstly, the above result can be explained by *political cost theory*. Jensen and Meckling (1976) suggested that larger companies are subject to more government and public scrutiny than smaller companies. Zimmerman (1983) used effective corporate tax rates as a proxy for political costs and demonstrated that large U.S. companies are less likely to circumvent their tax liabilities and more likely to pay more taxes. Zimmerman calls this a political cost of being a large company. In this context, some disclosure researchers have extended the political cost argument to corporate disclosure. However, there is some controversy about how political costs may affect corporate disclosure. Some disclosure researchers argue that another political cost of being a large company is increased corporate disclosure. They propose that larger companies, being more politically sensitive, will disclose more extensive information in order to reduce the likelihood of political action either from the government or from a

particular pressure group (e.g. Inchausti, 1997). However, some other disclosure researchers have an exactly opposite view. They contend that politically sensitive companies will disclose less information in an attempt to avoid the increased attention that comprehensive disclosure may draw to them (Wallace, 1987; Wallace et al., 1994; Wallace and Naser, 1995). Although most empirical evidence supports the argument that larger companies tend to disclose more information in an attempt to reduce their political costs (e.g. Inchausti, 1997), the findings of this study lend support to the latter theoretical argument that the threat of political action may (in some countries) make larger companies disclose less extensively.

Secondly, the negative influence of company size on the mandatory disclosure practices of Greek companies can be attributed to, and explained by, the distinctive accounting environment in Greece. Chapter 2 has illustrated that Greek companies operate within an environment which is different from that found in other countries in which a positive relationship between company size and corporate disclosure has been reported [for example the U.S. (Cerf, 1961) and Canada (Belkaoui and Kahl, 1978)]. Indeed, the empirical evidence (summarised in Appendix D of the study) shows that most countries in which a positive association between company size and corporate disclosure has been reported, follow the Anglo–Saxon model of accounting (e.g. the US, UK and Canada). Quite distinctive from such Anglo–Saxon accounting environments, the Greek accounting environment is characterised by a strong influence of party politics, that has rendered accounting an instrument of public policy aiming to enforce the decisions of the party in power. Ballas (1998) notes that in Greece there is extensive state intervention in accounting matters and a propensity to regulate even minute details of business activity because social actors call upon the government to intervene whenever they disagree. Bourantas et al. (1990) suggest that in Greece matters are continuously debated in long parliamentary discussions which end up, most of the time, in legislation. In the rest of the developed world, these matters would be considered as managerial prerogatives or tasks. Papas (1993)

290

opines that in Greece people tend to mistrust accounting and regard it as a means of generating misleading information for tax evasion purposes and pricing policies. Papas (1993, p.77) also notes that in Greece:

> *Accountants do not feel obliged to disclose any reliable information beyond that required by law or custom. They are loyal to members of the family that owns or controls the business and serve its interests.* ***They often use the occasional anti-business bias of the general public to justify the withholding of sensitive data.*** [Emphasis added].

It may, therefore, be possible that the disclosure practices of large companies in such a highly politicised environment are different from those of companies operating in more flexible and laissez–faire environments. In line with the argument derived from political theory earlier, large Greek companies may fear that in such an environment extensive disclosure may attract greater public or government attention, leading to a detailed scrutinisation of their operational and financial affairs. The increased visibility may lead to greater exposure to political attacks in the form of pressure for greater regulation such as price controls, higher corporate taxes and the threat of nationalisation (Jensen and Meckling, 1976). Consequently, it is likely that in such a highly politicised environment, large Greek companies may try to reduce the likelihood of political action through the disclosure of less information in the general purpose CAFSs.

Thirdly, some support for the negative influence of company size on the extent of mandatory information disclosed by large Greek companies can also be provided by empirical evidence reported in this as well as in other studies. This is because the results of the bivariate statistical tests reported in Section 8.3.4 show that company profitability (which , like company size, can also be used as a proxy for political costs) has also been found to have some negative (though weak) influence on Greek mandatory disclosure practices. Some researchers have cautioned the use of

company size as a proxy for political costs and argued that in certain cases a better proxy may be a company's profitability (Watts and Zimmerman, 1986). It can be claimed that the reported negative influence of company size on Greek mandatory disclosure practices is consistent with the reported (weak) negative influence of company profitability on Greek mandatory corporate disclosure. In other words, Greek companies which are politically sensitive, either because of their size or of their profits, tend to disclose less mandatory information in an attempt to decrease their political costs. It is interesting to note that a similar result has been reported by Craig and Diga (1998) who presented evidence that politically sensitive companies (banks and utilities) in Singapore, Malaysia, Indonesia, the Philippines and Thailand had the lowest levels of mandatory information disclosure. Similar evidence has also been reported by Kim and Limpaphayom (1998), who found a negative relation between firm size and effective tax rates (which are also used as a proxy for political costs) in Hong Kong, Korea, Malaysia, Taiwan and Thailand.

Finally, another plausible explanation for the reported negative relationship between company size and Greek mandatory disclosure may be that Greek large companies disclose fewer details in their statutory annual reports but: (1) use alternative channels for communicating the undisclosed mandatory information to specific user groups, for example through special reports to the tax authorities, lenders, employees, shareholders etc.; or (2), given that mandatory and voluntary disclosures are sometimes used as substitutes (Dye, 1985; Wallace and Naser, 1995), it is possible that some Greek large companies may avoid disclosing extensive mandatory information but, instead, disclose extensively information which is entirely voluntary. For example, a Greek company may avoid giving a breakdown and details of employee remuneration (mandatory information) but may provide details about employee productivity, performance, fringe benefits, remuneration policy etc. (voluntary information). Indeed, the researcher noticed that in their 1996 CARs some large Greek companies disclosed detailed information about voluntary items (e.g.

292

Goodies S.A.) or have prepared a separate report which was attached to the CAR and included voluntary information on specific areas (e.g. Titan S.A.). It is possible that not taking into account information items that are entirely voluntary has caused the results on the size variables to be inconsistent with prior results. For this reason, it would be very interesting if future researchers investigate the disclosure of voluntary information in Greece and examine the relationship of company size with the voluntary disclosure practices of Greek companies.

It should be emphasised that although both corporate size and listing status are often found to associate positively with corporate disclosure (Ahmed and Courtis, 1999), this is not so in the case of the Greek sample companies. Although the Greek main market listed companies have been found to disclose more extensively (than parallel–market listed companies), Greek large companies have been found to disclose less extensively (than smaller companies). It is also noticeable that the Greek main market listed companies included in the sample (non–financial companies), are not significantly bigger (in terms of size) than the parallel market listed companies.[65] It must also be noted that, in contrast to most previous studies, the listing status variable in Greece does not capture the effect of being listed or unlisted, but the effect of being listed on one of the two markets of the ASE.

To summarise, it can be claimed that the reported negative influence of company size on Greek mandatory disclosure can be explained by theoretical, environmental, empirical and other considerations. For example this relationship can be attributed to the distinctive nature of the highly politicised Greek accounting environment and can be explained by political cost theory. The implication is that political cost theory, whose predictions have extensively been tested in empirical studies in the U.S., does not necessarily represent a set of propositions that are applicable in all accounting

---

[65] A t–test was carried out on the mean company sizes (log cap) of the two listing groups. The t–statistic was -1.586 with the p value being 0.118.

environments. Hence, it is possible that different predictions about the disclosure of corporate information may be derived from political cost theory (and possibly other theories of corporate disclosure) depending on the environment within which the theory is examined. Thus, whilst in some countries the existence of political costs may induce large companies to disclose more extensive information, in other countries with specific environmental and regulatory characteristics, the existence of such costs may make large companies disclose less extensively. A similar caution has been made by Kim and Limpaphayom (1998) who found a negative relation between firm size and effective tax rates (which are also used as a proxy for political costs) in Hong Kong, Korea, Malaysia, Taiwan and Thailand. Their results also contradict the common prediction for a positive relation put forth by the political cost hypothesis and is in stark contrast to the majority of other U.S. findings such as Zimmerman (1983).

Finally, it must be pointed out that the reported relationship between company size and the extent of Greek corporate disclosure is sensitive to the choice of company size as a proxy for political costs. Some researchers have argued that the actual reason why size is important could vary from one country to another and size could act as a proxy for the complexity of company operations in one country and for political costs in another (Craig and Diga, 1998). As using company size as a proxy for political costs has been questioned in the literature, it is possible that a better proxy for political costs may not give identical results. Alternatively, it may be the case that large Greek companies disclosed less extensive mandatory information but more extensive voluntary information, either in their annual reports or through other communication mediums.

9.4.4   Company Profitability and Corporate Disclosure

The empirical evidence reported in Chapters 7 and 8 suggests that the influence of corporate profitability on the extent of information disclosed by Cypriot and Greek

companies is different. While Cypriot more profitable companies tend to disclose more information, there is evidence that profitability has no (or a very weak negative) influence on Greek corporate disclosure. This result lends support to Lang and Lundholms' (1993, p.250) proposition that "the results from the theoretical and empirical research suggest disclosure could be increasing, constant, or even decreasing in correspondence with firm performance".

The reported positive association between profitability and Cypriot corporate disclosure is in line with most previous empirical research (e.g. Singhvi, 1967; Abu–Nassar and Rutherford, 1994). The reported positive association is also consistent with the prediction of agency theory, that managers of profitable companies will want to disclose extensive information in order to show and explain to shareholders that they are acting in their best interests and to justify their (the managers') compensation packages. Additionally, the result for Cypriot companies lends support to the prediction of signalling theory, that more profitable companies may be encouraged to disclose more adequate information to the market because failure to signal good news may be interpreted as bad news. Finally, the positive association between corporate profitability and Cypriot corporate disclosure is in line with the prediction of political cost theory, that very profitable companies may disclose more information in order to justify the level of their reported profits and counter political government intrusions.

9.5 SUMMARY

This chapter answered the fourth research question. Section 9.2 summarised and compared the background information about the Cypriot and Greek accounting environments provided in Chapter 2. The comparison showed that in spite of their similarities in terms of ethnicity, language and religion, Cyprus and Greece have important differences in terms of their accounting environments and corporate disclosure practices. Due to historical, political, economic and other reasons, Cyprus follows the Anglo–Saxon accounting model while Greece follows the Franco-German accounting traditions. Furthermore, the adopted accounting system in each country has evolved to reflect its respective local environmental characteristics. Section 9.3 summarised and compared the evidence produced by the empirical investigation of the mandatory disclosure practices of the Cypriot and Greek sample companies that was undertaken in Chapters 7 and 8. Although an indirect comparison of the results was made, a more direct comparison was also attempted by trying to derive a "minimal model". The comparisons confirmed that there are some similarities in terms of the influence of listing status and industry type on the mandatory disclosure practices of Cypriot and Greek companies. Nevertheless, the comparison also confirmed an interesting difference as far as the influence of company size on Cypriot and Greek corporate disclosure is concerned. Although company size has not been found to have any significant influence on the extent of mandatory information disclosed by Cypriot companies, the empirical evidence has shown that in Greece company size has a negative influence on mandatory corporate disclosure. This finding is in contrast to the results of most previous disclosure studies which indicated that in most countries company size is positively associated with corporate disclosure. This result can be explained by theoretical, environmental, empirical and other considerations.

CHAPTER 10

CONCLUSIONS, POLICY IMPLICATIONS, LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

10.1   INTRODUCTION

This chapter is divided into three sections. The first section presents the main conclusions of the study and discusses the related policy implications. The first section also points out some broader issues relating to Cypriot and Greek accounting which were noticed during the course of this investigation and may deserve some attention by policy makers in the two countries. The second section discusses the limitations of the study and the third section identifies and recommends some areas of further research on the topic.

10.2 CONCLUSIONS AND POLICY IMPLICATIONS

10.2.1 Research Objectives

The main objectives of this study were:

(1) To investigate empirically the extensiveness of the Cypriot and Greek corporate mandatory disclosure practices.

(2) To examine the relationship between each of a number of specific corporate characteristics and the Cypriot and Greek corporate mandatory disclosure practices.

(3) To assess whether the variations in the extensiveness of Cypriot and Greek corporate mandatory disclosure practices can be explained by the selected corporate characteristics together.

(4) To make appropriate comparisons between the ways in which corporate characteristics influence Cypriot corporate mandatory disclosure practices and the ways in which they influence Greek corporate mandatory disclosure practices.

In order to throw light on Cypriot and Greek accounting, background information about the respective accounting environments was presented in Chapter 2. The background information provided, together with a synthesis of the theoretical framework for corporate disclosure that was undertaken in Chapter 3 and a literature review presented in Chapter 4, enabled the generation of testable hypotheses in Chapter 5. The hypotheses were statistically tested in Chapters 7 and 8. The results of the

statistical analyses undertaken were summarised and compared in Chapter 9. These results are used in this chapter as a basis on which to formulate appropriate policy recommendations.

10.2.2 Main Conclusions

The empirical analyses of the Cypriot and Greek corporate disclosure practices have led to four main conclusions.

First, on the basis of the statistical results for research question one, it can be concluded that the mandatory disclosure practices of the Cypriot and Greek sample companies, on the whole, appear to be extensive. Applicable information items disclosed ranged from 66.2 to 97 per cent for Cypriot companies and 83.3 to 92.8 per cent for Greek companies. Respectively, the mean disclosure scores were 84.7 and 88.8 per cent for Cypriot and Greek companies. These percentages compare favourably with those reported in some prior mandatory disclosure studies (e.g. Wallace et al., 1994; Wallace and Naser, 1995; Patton and Zelenka, 1997).

Second, on the basis of the statistical results for research questions two and three, the second main conclusion of the study is that Cypriot public companies which are more profitable, are classified as conglomerates, or whose shares are listed on the CSE, tend to disclose significantly more extensive mandatory information in their 1996 CAFSs.

Third, on the basis of the statistical results for research questions two and three, the third main conclusion of the study is that Greek listed companies which are smaller, are classified as conglomerates or manufacturing, or whose shares are listed on the

main market of the ASE, tend to disclose more extensive mandatory information in their 1996 CAFSs.

Finally, on the basis of the comparative analyses undertaken in Chapter 9, it can be concluded that although the influence of listing status and industry type on Cypriot and Greek corporate mandatory disclosure is similar, the influence of company size is different. In contrast to Cyprus and evidence reported in previous studies, company size has a negative influence on the extent of Greek corporate mandatory disclosure. This difference can be explained by theoretical, environmental, empirical and other considerations.

10.2.3 Policy Implications

The conclusions presented above have at least three important implications for the regulation of Cypriot and Greek corporate disclosure, the use of corporate information by interested users of CAFSs and the use of political cost theory to make predictions about corporate financial disclosure. The approach followed in presenting these implications is to point out the general policy implication arising out of the conclusions of the study and, then, offer practical recommendations for its implementation.

The first implication relates to the statistical results of the analyses made for research question one and arises out of the first main conclusion of the study. Although the Cypriot and Greek corporate mandatory disclosure practices, on the whole, have been found to be extensive, improvements in mandatory disclosure can still be made. This is because there is evidence that some companies do not provide sufficiently extensive mandatory information required under the respective regulatory regimes. For example, the minimum disclosure scores were 66.20 per cent for Cypriot companies and 83.3 per cent for Greek companies. It is also noticeable that no company in either Cyprus

or Greece disclosed all sub-elements of mandatory information that could have been disclosed (maximum relative disclosure scores were 97 per cent for Cypriot companies and 92.8 per cent for Greek companies). Improvements in corporate mandatory disclosure can be achieved by several measures. For example, policy makers can consider introducing better disclosure monitoring mechanisms in order to ensure stricter compliance with mandatory minima. One measure can be the setting up of a financial reporting watchdog, that will formally undertake detailed reviews of corporate disclosure practices and be empowered to take remedial action in case of non-compliance with disclosure requirements. Another measure that can be taken is the introduction of educational policies to raise the awareness of companies (that tend to disclose less extensively) about their disclosure responsibilities. For example, policymakers can consider the circulation of technical notes clarifying disclosure regulations and/or making recommendations about the extent of information to be disclosed. Finally, policymakers can consider organising seminars on a regular basis, to update practitioners on newly introduced disclosure regulations and to clarify the provisions of existing regulations on corporate accounting and reporting.

The second implication relates to the statistical results of the analyses made for research questions two and three and arises out of the second and third main conclusions of the study. Corporate stakeholders who rely on CAFSs to get useful information to assist them in their decision making should be wary of Cypriot companies which are less profitable, are classified as non–conglomerates or are not listed on the CSE; and Greek companies which are larger, are classified as others or are listed on the parallel market of the ASE. This is because these companies have been found to disclose significantly less extensive mandatory information. The users of the CAFSs of such companies are likely to find out that the CAFSs do not include all information details that could or should have been disclosed. In such a case, and if they are interested to get more extensive information about particular aspects of corporate performance or financial position, they may have to rely on other sources of

information. These sources can be internal (from within the company) or external (outside the company). For example, users may have to rely on internal sources such as voluntary information disclosed in CARs or other specialised voluntary reports (such as employee reports, environmental reports etc.). Alternatively, users can rely on external sources such as financial newspapers, government reports, stockbrokers' research reports, stock exchange statistics etc.

The third implication relates to the results of the comparative analyses undertaken for research question four and arises out of the fourth main conclusion of the study. It is possible that different predictions about the disclosure of corporate information may be derived from political cost theory, depending on the environment within which the theory is examined. Although it is usually claimed that politically sensitive companies may disclose more extensively in order to reduce their political costs, the opposite may be true in the case of countries with specific environmental characteristics (similar to those existing in Greece in 1996): politically sensitive companies may disclose less extensively. If company size can be used as a proxy for political costs of Greek companies, it could be suggested that politically sensitive companies operating within a highly politicised accounting environment (similar to that existing in Greece in 1996), could be expected to disclose less extensive mandatory information. It can also be argued that political cost theory may not necessarily represent a set of propositions that can be used to derive similar predictions about the disclosure of corporate information in all accounting environments. As Watts and Zimmerman (1986) put it, there exist no perfect accounting theories because "theories are simplification of reality and the world is complex and changing" (Watts and Zimmermann, 1986, p.10).

10.2.4 Broader Issues Arising Out of this Study

This study was empirical in nature. However, during the process of gathering background information about the Cypriot and Greek accounting environments, several policies and/or practices were noted which, in the opinion of the researcher, deserve some attention by accounting regulators and researchers. It should be made clear, however, that these issues do not arise out of the statistical analyses made.

For example, in the process of analysing the Cypriot regulatory framework for accounting it was noted that Cypriot company law is out of date and has not kept abreast of the rapid development of the Cyprus economy. Additionally, in the process of gathering background information about the Cypriot accounting profession and education, it was noted that although Cyprus has a developed and respected accounting profession, there are virtually no rules and regulations about the training and education of accountants and the issue of practising certificates. Finally, it was noticed that the over–emphasis on professional accounting training at the expense of academic accountancy education has resulted in research on accounting in Cyprus being poor.

The above issues deserve some attention by accounting regulators and researchers in Cyprus. For example, it is the opinion of the researcher that the attempt to modernise Cypriot company law and regulate the Cypriot accounting profession should proceed without any further delay. In this respect, Cyprus can draw on the experiences of other countries that have modernised their accounting systems and harmonised them with EU regulations and practice (e.g. Poland). Additionally, accounting professionals and academics, possibly in co–operation with the government and other accounting regulators, can proceed with the establishment of a broad–based national committee to advance accounting education. The degree programmes in accounting offered in

the University and the private colleges could be developed to reflect local realities, and accounting research could be encouraged and supported financially by both the corporate sector and the government.

In the process of gathering background information about the Greek accounting environment, some other broader issues arose. For example, it was noticed that in many cases the local accounting practices are heavily influenced by tax rules. Additionally, specialised transactions such as leasing and deferred tax are not reflected in Greek financial statements. The effect of such practices is to make Greek CAFSs inconsistent with financial statements prepared under the IASs. Another characteristic of Greek accounting which deserves some attention is the fact that some companies do not make the notes to the accounts easily accessible to users other than existing shareholders. This is because these companies do not include the notes to the accounts in their CAFSs but, instead, file them with the Ministry of Finance and interested users have to visit the Ministry to obtain a copy.

It is the opinion of the researcher that the above issues need some attention by accounting regulators in Greece. For example, the current tax influence of certain accounting practices could be mitigated through, for example, the introduction of one set of accounting and disclosure rules for tax reporting purposes, and another set of rules for reporting to other stakeholder groups. Additionally, accounting regulators can consider the non–comparability of Greek CAFSs with those of other European countries and, in case it is desirable, introduce rules to remedy this situation (e.g. introduce lease and deferred tax accounting). Finally, accounting regulators can amend the annual reporting requirements in order to make the notes to the accounts of all listed companies easily accessible to prospective investors, the public at large and other interested users; for example by requiring the publication of the notes to the accounts in the set of CAFSs released to prospective investors.

10.3 LIMITATIONS

10.3.1 General

There are several limitations of this study that should be taken into account in considering the conclusions and policy implications outlined in the previous section. Some of the limitations relate to the kind of research design employed and are inherent in any study following a similar approach. Other limitations have, effectively, been forced on the investigator (for example due to missing data). Finally, some of the limitations arise out of decisions made by the researcher in the process of this investigation and could have been avoided had an alternative decision been taken. These limitations have been grouped into three categories and are discussed below.

10.3.2 Limitations Relating to the Research Design

The first limitation relates to the operational definition of disclosure extensiveness used. The definition has been based on the extent of detail disclosed and assumes that the more disclosure the better. Hence, as in the case of Wallace (1987) and Owusu–Ansah (1998), this study suffers from "the more disclosure the better" syndrome and ignores the information–overload problem. Although there is no empirical evidence to support the existence of the information–overload problem in emerging economies (Owusu–Ansah, 1998), it should be cautioned that giving a sheer volume of all required disclosures may overwhelm users' ability to comprehend all information and focus on the most important items. Additionally, the definition used ignores the possibility of incorrect or immaterial information given. Nevertheless, this problem is faced by all researchers and it is usually ignored, since the possibility of misinformation in annual reports is a problem that it is not logically feasible to investigate (Wallace and Naser, 1995).

The second limitation relates to the subjectivity inherent in the scoring process (that is, confirming whether a particular information item was, in fact, relevant to a company). In spite of the different safeguards employed to avoid subjectivity in scoring the CAFSs of the sample companies, the problem may not be completely eradicated. A more safe method to confirm item applicability is to go directly into a company and, by searching the records and interviewing the company's officers, decide whether an information item is relevant or not. However, this is usually not feasible especially in studies where very detailed disclosure measuring instruments are used.

The third limitation relates to the fact that the results of this study have, in certain cases, been compared to the results of previous studies. For example, the study compared the ways in which some corporate characteristics influence Cypriot and Greek corporate disclosure practices and the ways in which they influence corporate disclosure practices in other countries (as reported in previous studies). This was done in order to evaluate whether the results of the study corroborate with prior empirical evidence. However, any conclusions drawn should be evaluated with caution because the studies compared examined companies operating in different countries and, possibly, within different socio–economic environments. Additionally, the studies have been carried out in different time periods and are probably inconsistent with this study in terms of sample type and research method. Nevertheless, such comparisons are widespread in the literature and this limitation and concern is inherent in any attempt to compare the results of different disclosure studies.

The fourth limitation is associated with the ascription of causal connection between corporate disclosure and some corporate characteristics. Based on the definition of causality adopted in this study, an attempt has been made using regression analysis and economic theory to establish a cause–effect relationship between corporate disclosure and a number of corporate characteristics. However, the term causality is one of the most troublesome concepts in statistics and highly respected researchers

disagree about what constitutes a cause (Vogt, 1993). Furthermore Kennedy (1996) stresses that by using the dictionary definition of causality, it becomes impossible to statistically test for it. It is important to clarify that the term causality, as used in this study, is used to refer to multiple causation. This implies that: (1) any of the several causes (corporate characteristics) can produce the same effect (disclosure); and (2), no one of the causes will necessarily produce the effect; but several of them in combination make it more likely. Therefore, the term causation used does not imply that whenever the cause (corporate characteristics) happens, the effect (corporate disclosure) always does too (simple causation).

Another problem relates to the fact that in undertaking different statistical analyses it was assumed that the relationships between corporate disclosure and the selected corporate attributes is linear. Ramanathan (1995) has cautioned that this may be an unrealistic constraint on a model. However, several approaches were used to investigate and cater for any non–linear relationships (e.g. transformation of data sets and investigation for interaction effects) that enabled the researcher to conclude that the assumption of linearity is reasonably safe.

Finally, there is the issue of the external validity of the study and the extent to which the findings of this investigation are relevant to subjects and settings beyond those in the present study. Although the conclusions presented in Section 10.2.2 above are based on the analysis of the CAFSs of 50 Cypriot and 74 Greek sample companies, the results can be generalised for all Cypriot public and Greek listed companies which prepared and published CAFSs in 1996 that could have been used as a meaningful basis for informed decision making. This generalisation can be made as the sampling procedures outlined in Section 6.2 of Chapter 6, show that it is reasonable to assume that the Cypriot and Greek samples are representative of the target populations. However, generalisation to other settings or to other groups has to be done on other, non statistical bases (Robson, 1993). For example, generalisability of the findings to

the post–1996 disclosure practices of the Cypriot public and Greek companies, should be made with caution; especially in view of the dynamic nature of the Cypriot and Greek accounting environments in the late 1990s (for example the EU harmonisation moves in Cyprus and the integration of the Greek economy into the EMU).

10.3.3   Forced Limitations

The first forced limitation relates to the fact that the comparative analysis between the Cypriot and Greek corporate disclosure practices has been carried out using an indirect approach (that is, by developing a separate index for each country, carrying out two single country disclosure investigations and making an indirect investigation of the results). Nevertheless, this approach was effectively forced on the researcher as the conditions required to use a direct approach were not satisfied. The countries compared do not have the same disclosure minima, have certain socio–economic differences, and there is no empirical evidence about the perceptions of the objectives of financial statements and the order of importance of disclosure items.

The second forced limitation relates to the selection of the particular corporate characteristics that have been examined as potential explanatory variables of corporate disclosure. The corporate characteristics selected have been those capable of being measured easily and believed to be influential by the researcher and the practitioners and academics interviewed. The relationships between corporate disclosure and the selected corporate characteristics were then expressed in the form of research hypotheses to facilitate their statistical analysis. However, there might have been other potential hypotheses that could have been derived from the theoretical framework (such as the existence of share compensation plans for directors and the existence of audit committees) that would have been very interesting to examine, but the lack of relevant information made these impossible to consider.

The measurement of corporate characteristics is not without its limitations. Given that some of the corporate characteristics cannot be measured directly, it was decided to infer them by specifying appropriate operational definitions (for example, company size in Greece was defined on the basis of market capitalisation, net sales and total assets). However, it is possible that an alternative definition and measurement (for example, measuring company size on the basis of the total number of shareholders or the total number of employees) could have had an impact on the selection of explanatory variables included in the regression model and, thus, could have resulted in different conclusions. Nevertheless, in most cases, it was the absence of data that prevented the measurement of a particular characteristic using an alternative approach.

10.3.4 Study–specific Limitations

The first study–specific limitation is associated with the form of the corporate communication medium examined. This study focuses on the CAFSs of Cypriot and Greek non–financial companies. Companies, however, use other media through which they communicate information (such as prospectuses, press reports, press releases and interim reports). Information disclosed through such disclosure media were left out of the empirical investigation. Additionally, the study focuses on information disclosed by non–financial companies and its conclusions may not necessarily be applicable to financial companies such as banks and insurance companies.

Another limitation relates to the time horizon of the study. The extent of Cypriot and Greek corporate disclosure has been examined in this study cross–sectionally. However, the accounting environments in both Cyprus and Greece are undergoing important changes (such as the EU harmonisation exercise in Cyprus and the gradual integration of the Greek economy with other EU economies). Hence, although 1996

was a convenient and suitable year to use in a comparative analysis of the Cypriot and Greek corporate disclosure practices, it is still possible that the relative influence of the selected explanatory variables have changed in view of the dynamic nature of the Cypriot and Greek accounting environments. Nevertheless, the study does give a point in time comparison and provides a starting point for future longitudinal research endeavours.

Thirdly, the definition and measurement of extensive disclosure is not without its drawbacks. The definition of disclosure extensiveness used in this study has been based on the extent of compliance with a set of legal and other institutional requirements. Although this enabled a convenient operationalisation and measurement of the term extensiveness, it should be admitted that there are alternative measurement techniques. For example, disclosure extensiveness could have been evaluated by asking a group of financial analysts to evaluate the CAFSs and their ratings could have been used as the measure for disclosure extensiveness.

Similarly, disclosure extensiveness was measured by the extent to which companies disclose mandatory information items. Although this definition captures and element of voluntary disclosure as well (in the sense that the extent of detail with which mandatory information is disclosed is up to the discretion of management), it ignores items that are entirely voluntary. Thus, it may be possible that some of the companies that have been found to disclose less extensive mandatory information than others may, in fact, be offering more extensive disclosure about the items that are entirely voluntary. Perhaps an investigation of voluntary disclosure would result in different conclusions from those reported in this study.

Finally, the selection of information items included in the scoring instruments have been based on the disclosure minima in the respective countries, which are believed to represent what the average user of CAFSs requires in order to take informed

decisions. Instead, a questionnaire survey could have been used to identify the stated information needs of all (or particular) groups of users and the scoring instruments could have been designed accordingly. Similarly, it has been *assumed that each item* is equally important to the average user of CAFSs but in practice some information items may be more important to decision makers than others. Hence, weighted disclosure scores might have given different results.

10.4 SUGGESTIONS FOR FURTHER RESEARCH

Future work might extend this type of research by examining information disclosed through other communication media (such as interim reports) or information disclosed by other types of companies (such as banks and other financial institutions). Future research might also examine the disclosure of information by Cypriot and Greek companies longitudinally. This may give a useful insight on how disclosure practices change in the Cypriot and Greek accounting environments.

There are also other approaches that can be used to make a comparison of cross-national corporate disclosure practices. For example, if the relevant conditions are satisfied one can make a direct comparison of common mandatory disclosure items. In such a case a researcher can develop a multiple regression model and use as a potential explanatory variable a company's country of origin. This can reveal whether corporate disclosure levels are influenced by a company's country of origin and whether Cypriot or Greek companies provide the highest levels of disclosure. Alternatively, one may investigate common voluntary disclosure items and disaggregate the disclosure indexes into categories (or even individual items) of information. Another cross-national comparative disclosure research endeavour could be to adopt a multi-country approach, where more than two countries would be examined. In such a case, researchers should be careful to use a representative sample of companies from each country in order to be able to separate the effect of country of origin on corporate disclosure practices. Another development of this type of research could be to study other aspects of disclosure quality, such as readability of information disclosed. This would give a more complete picture of national corporate disclosure practices. Of particular interest would also be a voluntary disclosure study, especially in the case of Greek companies where the result for

company size is in contrast to most previous studies. Such a study should enrich our understanding of Greek corporate financial disclosure.

In measuring corporate disclosure, it would be interesting to use alternative measurement techniques. For example, questionnaires can be used to elicit the opinion of specific user groups (such as financial analysts) about the importance of different information items and assign weights accordingly. Additionally, given that data availability limited the researcher's ability to study some factors that have been found to be important in other disclosure studies (such as ownership structure), the effects of such factors could be examined as additional information becomes available.

In analysing the data, alternative approaches can be employed. For example, in cases where some of the OLS assumptions are not satisfied (e.g. the residuals are not normally distributed) robust regression can be used (such as the least absolute deviations squares). Additionally, a researcher can employ alternative methods of transformation when dealing with non–linear relationships (such as rank regression) or attempt to model the relationships between corporate disclosure and corporate attributes using non–linear models (such as exponential regression).

Finally, given that the effect of company size on the mandatory disclosure practices of Greek companies has been found to be in contrast to previous research findings, it would be interesting to investigate this relationship during a later period to see if this relationship was not time specific. Similarly, it would be interesting to examine whether the impact of company size on corporate mandatory disclosure practices is not country specific. For this reason, a similar study on countries with environmental characteristics similar to those of Greece (strong influence of party politics, extensive state intervention in accounting matters, negative attitude of people towards accounting) would be a welcoming initiative.

10.5   CONCLUDING REMARKS

This study empirically investigated the 1996 financial disclosure practices of Cypriot and Greek companies. The main findings of the study are:

(1)   The 1996 mandatory disclosure practices of Cypriot public and Greek listed companies, on the whole, appear to be extensive.

(2)   Cypriot public companies which are profitable, are classified as conglomerates or whose shares are listed on the CSE tend to disclose significantly more extensive mandatory information in their 1996 CAFSs.

(3)   Greek listed companies which are smaller, are classified as conglomerates or manufacturing, or whose shares are listed on the main market of the ASE tend to disclose significantly more extensive mandatory information in their 1996 CAFSs.

(4)   Although the influence of listing status and industry type on Cypriot and Greek mandatory disclosure practices is similar, the influence of company size is different. In contrast to Cyprus and most evidence reported in previous studies, company size has a negative influence on the extent of Greek corporate mandatory disclosure. This difference can be explained by theoretical, environmental, empirical and other considerations.

Despite its limitations, it is claimed that this study constitutes a significant addition to the corporate disclosure literature. Nevertheless, the study concludes by indicating that corporate financial disclosure has still a long list of unexplored research topics; or in Socrates' words: we, still, "know nothing except the fact of our ignorance" (469 – 399 BC; cited in Bartlett and Kaplan, 1992).

PART V

APPENDICES AND BIBLIOGRAPHY

N°	PRACTICE	CYPRUS	GREECE
1	Organisation of Bookkeeping	At the discretion of the directors.	The chart of accounts outlines the names, content and interrelationships among the accounts to be kept.
2	Preparation of Annual Financial Statements	• - Profit and Loss - Balance Sheet - Cash flow Statement - Notes to the accounts • IAS 5 specifies the information to be presented but no specific formats are required.	• - Income Statement - Balance Sheet - Table of Appropriation of Profits - Prosartima (Notes to the accounts) • The General Accounting Plan specifies in detail the form and content of the financial statements.
3	Basic Accounting Model Used	Historic Cost Accounting modified by subjective revaluations.	Historic Cost Accounting modified by tax/legally induced revaluations.
4	Fundamental Accounting Assumptions and Policies (Principles) followed	Going Concern, Consistency, Accruals, Prudence, Substance over Form, Materiality.	• Prudence, Consistency, Historic Cost, Accruals, Matching, Revenue Recognition, Adequate Disclosure, Periodicity, Going Concern, Materiality, Objectivity. • Prudence must prevail in case of conflict.
5	Property, Plant & Equipment	Valued at purchase price/production cost subject to subjective revaluations/ impairment according to IAS 16.	Valued at purchase price/production cost subject to revaluations (according to special legislation) or permanent devaluations.
6	Depreciation	• Depreciable amount should be allocated on a systematic basis over the useful life of the asset. • Useful life, residual values and depreciation methods are subjectively determined by the directors.	• Depreciation should be based on estimated economic life. Rates may be estimated by management but maximum rates are prescribed by law. • Accelerated depreciation may be provided under various laws.
7	Government Grants	• Grants should be matched with the related costs which they intend to compensate. • Capital grants should either be deducted from the carrying amount of the asset or separately disclosed as deferred income.	Capital grants should be credited to a deferred account and taken to the Income Statement in proportion to the depreciation of the asset concerned.
8	Capitalisation of Borrowing Costs	Should be written off to the P & L account unless they are directly attributable to the acquisition, construction or production of a qualifying asset in which case they should be capitalised as part of the cost of the asset.	May be written off to the Income Statement or capitalised and amortised over 5 years.
9	Intangible Fixed Assets	• No requirement. • E50 which became a standard in 1997 is not applicable to accounting periods ending in 1996.	• Valued at historic cost and amortised over the period of their productive use. • Revaluation is not allowed.
10	Goodwill	Purchased goodwill must be capitalised and amortised over a period not exceeding five years unless a longer period, not exceeding twenty years, can be justified.	Purchased goodwill is either written off immediately or capitalised and amortised over 5 years.
11	Research & Development	• Research costs should be recognised as an expense in the year incurred. • Development costs should be recognised as an asset if certain strict criteria are met; otherwise, they should be written off.	• Research and development costs can either be written off immediately or capitalised and amortised over 5 years. • No definition of what constitutes research and development is offered by accounting law except in the case of mineral extraction resources.
12	Incorporation Expenses	No specific provisions but usually written off immediately to undistributable reserves.	Either written off immediately or capitalised and amortised over 5 years.

Nº	PRACTICE	CYPRUS	GREECE
13	*Leases*	• Lessees should recognise a finance lease as an asset and show the lease obligations as a liability. • Lessors should derecognise assets on finance leases and set up a receivable equal to the net investment in the lease. • Rentals on operating leases should be recorded as income payable and income receivable by the lessee and the lessor respectively.	• Lessee records rentals as operating expenses and an appropriate value is recorded in both assets and liabilities in the memo accounts. • Lessor depreciates the asset and takes income to the Income Statement. The value of the asset is recorded in the memo accounts as property in the hands of third parties.
14	*Stocks*	• Valued at the lower of cost and net realisable value. • Acceptable methods to determine cost are FIFO, Weighted Average and LIFO.	• Valued at the lower of cost and market (replacement) price. • Acceptable methods to determine cost are FIFO, LIFO, Average, Individual and Base Stock.
15	*Construction Contracts*	• When outcome can be estimated reliably contract revenue and costs should be recognised by reference to the stage of completion. • An expected loss should be recognised immediately.	• Not specifically addressed. • Usually the percentage of completion method is followed.
16	*Receivables*	• Revenue is recognised when realised. • Receivables are stated at the lower of cost or net realisable value. • Provisions are subjectively determined based on the prudence concept.	• Usually shown at their stated value reduced by provisions to cover specific losses. • Usually the provisions charged are the maximum allowed against tax and are not prudently determined.
17	*Investments*	• Current asset investments should be carried either at market value or the lower of cost and market value. If the latter method is used the carrying amount should be determined either on a portfolio or on an individual basis. • Long term asset investments should be carried either at cost or revalued amounts or, in the case of marketable securities, at the lower of cost and market value determined on a portfolio basis. • Valuation differences should be taken to the P & L account or to the owners' equity subject to the rules of IAS 25.	• Investments in corporations are valued at the lower of cost, market value or the value in previous financial statements determined on a portfolio basis. • Investments in unincorporated enterprises are valued at the lower of cost and market value determined on an individual basis. • Any differences arising should be taken to the Income Statement.
18	*Liabilities*	• Current liabilities are those obligations payable within one year and are stated at their repayment values. • Long term liabilities are usually stated at their maturity value.	• Current liabilities are shown at their face or repayment value. • Long term liabilities are shown at their maturity value reduced by the amount of unrealised interest which appears in the contra liability account.
19	*Provisions* *(including pension costs)*	• Provisions for identified liabilities should be made based on the probability of crystallisation. • Provisions for bad debts are subjectively determined based on the prudence concept. • Provisions for pensions and other retirement benefits are made during the service life of the employee in accordance with the accruals concept.	• In theory companies should make adequate provisions for bad debts, employees severance pay etc. • In practice, provision for bad debts is calculated at a percentage of sales as stipulated by tax law. • Provision for severance pay is not usually made because it is not tax deductible. • Provisions are not defined as liabilities or reserves but accountants consider them as "special purpose reserves".

Nº	PRACTICE	CYPRUS	GREECE
20	*Taxation*	• Tax is shown as an expense including over/under adjustments for the tax charge of previous years. • Deferred tax should be provided for using the deferral or liability method, on all timing differences. The tax expense may exclude the tax effects of certain timing differences when there is reasonable evidence that they will not reverse for some considerable period ahead.	• Tax is shown as an appropriation of profit and may also include additional taxes assessed by the tax authorities for prior years. • Deferred tax is not reflected in financial statements.
21	*Contingencies and Other Commitments*	• Contingent gains should be disclosed if it is probable that the gain will be realised. • Contingent losses should be recognised if it is probable, and disclosed in the notes if possible, that they will be incurred.	They are usually recorded in the memo accounts which do not interchange with the regular accounts.
22	*Reserves*	• If share capital is issued at a premium the surplus is credited to a share premium account. • Only realised profits are credited to the P & L account. • Reserves are classified as either revaluation, P & L, capital redemption and other reserves.	• A legal reserve of one–third of share capital should be created via the annual appropriation of at least 5% of annual profits. • General reserves can be formed freely but their distribution needs AGM approval. Both legal and general reserves are taxable. • "Hidden" (tax free) reserves are usually provided through undervaluation of assets and overprovision of liabilities because of the influence of tax requirements.
23	*Capital*	• Called–up share capital must be disclosed as the aggregate amount of the calls made, whether or not they have been paid. • Own shares may be purchased under specific circumstances. • Called–up share capital not paid is shown as a debtor.	• Capital is shown at par value with share premium disclosed in a separate equity account. • Own shares may be purchased under exceptional cases and are usually extinguished. • If any shares are outstanding at year end there are shown as a current asset and an off–setting reserve is set up out of current year's profits.
24	*Foreign Currency Translation*	• The general rule for individual company transactions is that they are recorded using the rate at the date of the transaction. Monetary items are reported at the balance sheet date using the closing rate and non–monetary items using the historic rate. Exchange differences are normally recorded to the P & L account. • The financial statements of a foreign operation that is integral to the operations of the reporting enterprise should be translated using the individual company rules. • The financial statements of foreign entities should be translated using the closing rate for monetary and non–monetary assets and liabilities and historic rates for income and expenses. All exchange differences should be classified as equity.	• The general rule for individual company transactions is that each asset, liability, revenue or expense is translated using the transaction rate. Monetary assets and liabilities are translated using the closing rate. • The general rule for the translation of the financial statements of foreign subsidiaries is that they should be translated using the historic rate for non–monetary items, the closing rate for monetary items and the average rate for the profit and loss items. Exchange differences are normally taken to the Income Statement.

APPENDIX A – continued

Nº	ACCOUNTING PRACTICE	CYPRUS	GREECE
25	*Revenues and Expenses*	• Income and expenses are classified as ordinary or extraordinary. If ordinary items are of such size, nature or incidence that their separate disclosure is necessary then it should be made. • In the case of discontinued operations the revenue and the profit or loss from ordinary activities of the operation should be disclosed.	• Revenues and expenses are classified as ordinary or extraordinary. • Overstatement of expenses is common practice, with provisions and depreciation being the most frequently overstated items, giving rise to hidden reserves.
26	*Appropriations*	Net profit is appropriated to dividends and transfer to reserves. The balance is retained as the P & L reserve.	Net profit is appropriated to dividends, legal reserves, income taxes and directors' fees. The balance is retained as an optional reserve.
27	*Earnings per Share*	• No requirement. • E52 became a standard in 1997.	No requirement.
28	*Memo Accounts*	No requirement.	They are a separate category of accounts that operate dually in an autonomous accounting system.
29	*Definition of a Subsidiary*	The definition of a subsidiary is based on control rather than ownership.	As in the case of Cyprus.
30	*Basic Consolidation Methods*	• A business combination which is an acquisition should be accounted for by use the of the **purchase** method of accounting and one which is a unification of interests by the **pooling of interests** method. • Positive differences arising under the **purchase** method should be capitalised and written off over 5 (or maximum) 20 years. Negative differences are either eliminated by reducing proportionately the fair values of non–monetary assets or treated as negative goodwill and recognised as income over 5 (or maximum) 20 years. • Differences arising under the **pooling of interests** method should be adjusted against equity.	• All business combinations should be accounted for using **acquisition** accounting. • Positive differences on consolidation should either be written off immediately or capitalised and amortised over a period of 5 years. • Negative differences may be shown as a reserve and transferred partly or wholly to the Income Statement if they correspond to a realised profit or to an expectation of unfavourable future results.
31	*Equity Accounting*	• The equity method of accounting should be used for an associate company. • For jointly controlled operations the assets controlled, liabilities incurred, income earned and expenses incurred should be reported. • Jointly controlled entities should be accounted for using the equity method or the proportional consolidation method.	• Equity accounting should be used for participating interests in associated companies. • Proportional consolidation is not allowed.
32	*Segmental Information*	A reporting entity should report for each reported industry and geographical segment the sales, results, assets employed and basis of inter–segmental pricing.	No requirement.
33	*Financial Instruments*	• Financial instruments should be presented as liabilities or as equity in accordance with the substance of the item concerned. • Interests, dividends, losses and gains of a financial liability should be reported as expense or income. • Information about credit risk exposure and about interest rate risk exposure should be reported for each class of financial assets and liabilities.	No requirement.

Nº	ACCOUNTING PRACTICE	CYPRUS	GREECE
34	*Cash Flow Statement*	A Cash Flow Statement should be prepared and presented as an integral part of the financial statements.	No requirement.
35	*Changing Prices*	• Disclosure of a depreciation adjustment, cost of sales adjustment, monetary items adjustment and the effect of borrowing on equity interests should be made when such adjustments have been taken into account. • The overall effect on results of the above adjustments are encouraged.	No requirement.
36	*Distributions*	• No mention of distributable profits in company law. • Table A simply states that no dividend shall be paid out otherwise than out of profits. • Current UK practice is normally followed where distributions can only be paid out of accumulated realised profits after taking into account accumulated realised losses.	• A minimum amount equal to 5% of annual profits must be transferred to a **statutory reserve** until it reaches $^1/_3$ of share capital. This is undistributable but can be used to offset a deficit. • Of the remaining profits, a **minimum dividend** of at least 6% of the paid up capital or 35% of annual profits (whichever is greater) must be paid. This can be waived by a majority vote representing 95% of the paid up capital taken at an AGM.

SUMMARY OF MARK ALLOCATION[66]

			MARKS
1.	**GENERAL DISCLOSURES**		
	1.1 General Presentation	14	
	1.2 Accounting Policies	29	
	1.3 Changes in Accounting Policy	7	
	1.4 Fundamental Errors	8	
	1.5 Other items	1	
	1.6 Business Combinations During the Period	6	
	1.7 Acquisitions	3	
	1.8 Uniting of Interests	4	
	1.9 Consolidated Financial Statements	8	
	1.10 Foreign Currency	4	84
2.	**BALANCE SHEET**		
	2.1 Current Assets	18	
	2.2 Long–term Assets	45	
	2.3 Current Liabilities	14	
	2.4 Long–term Liabilities	12	
	2.5 Shareholders' Equity	8	
	2.6 Surplus and Reserves	3	100
3.	**INCOME STATEMENT**		
	3.1 Revenue	7	
	3.2 Cost of Sales	2	
	3.3 Other Items	32	41
4.	**CASH FLOW STATEMENT**		15
	C/F		240

---

[66] The measuring instrument is mainly based on information items required to be disclosed by the IASs applicable as at 31 December 1996 (IAS 1–32). This is because the IASs tend to demand more detailed disclosure than the Cypriot Companies Act 1951. In case an information item is required to be disclosed under either the IASs or the Act, the most comprehensive requirement is selected. Part 6 of the measuring instrument includes those information items which are more comprehensively required to be disclosed under the Act. The measuring instrument has been validated by the international accounting firms of Coopers & Lybrand (Cyprus) and Price Waterhouse (Cyprus).

B/F   240

5.   OTHER DISCLOSURES

**6.   ADDITIONAL DISCLOSURES REQUIRED BY
         THE CYPRIOT COMPANIES ACT 1951 –
         CHAPTER 113**

CORPORATE DEMOGRAPHIC DATA

COMPANY NAME: ....

RESEARCH CODE: ....

DISCLOSURE SCORE:

       (1)   ACTUAL: ....

       (2)   MAXIMUM: ....

       (3)   RELATIVE: ....

STRUCTURE RELATED VARIABLES:

       (1)   COMPANY SIZE:

               (i)   Total Sales: ....

               (ii)   Total Assets: ....

       (2)   COMPANY AGE:

               Number of Years Since Date of Incorporation: ....

PERFORMANCE RELATED VARIABLES:

       (1)   PROFITABILITY:

               (i)   Profit Margin: ....

               (ii)   Rate of Return: ....

       (2)   LIQUIDITY:

               Current Ratio: ....

MARKET RELATED VARIABLES:

(1)   INDUSTRY TYPE:

(i)   Manufacturing: ....

(ii)   Conglomerate: ....

(iii)   Other: ....

(2)   LISTING STATUS:

(i)   Listed: ....

(ii)   Unlisted: ....

(3)   AUDITOR TYPE:

(i)   Big 5: ....

(ii)   Non–Big 5: ....

```
PART 1 – GENERAL DISCLOSURES
```

1.1   GENERAL PRESENTATION

		YES	NO	N/A	
1.1.1	**General**				
	1.1.1.1 Name of the enterprise	O	O	O	1
	1.1.1.2 Country of incorporation	O	O	O	2
	1.1.1.3 Balance sheet date	O	O	O	3
	1.1.1.4 Period covered by the financial statements	O	O	O	4
	1.1.1.5 Brief description of the nature of its activities	O	O	O	5
	1.1.1.6 The legal form of the enterprise (IAS 5, Par. 7)	O	O	O	6
1.1.2	**Reporting Currency**				
	1.1.2.1 Reporting currency	O	O	O	7
	1.1.2.2 Reasons why reporting currency is not the currency of the country of domicile	O	O	O	8
	1.1.2.3 Reasons for change in reporting currency (IAS 5, Par. 7 and IAS 21, Par. 43)	O	O	O	9
1.1.3	**Classification, Aggregation and Offsetting**				
	Explanations of classification, aggregation and offsetting of items if necessary to make their meanings clear (IAS 5, Par. 8)	O	O	O	10
1.1.4	**Corresponding Figures**				
	Corresponding figures for preceding period (IAS 5, Par. 9)	O	O	O	11
1.1.5	**Fundamental Accounting Assumptions**				
	1.1.5.1 Departures from fundamental accounting assumptions (going concern, consistency, accruals)	O	O	O	12
	1.1.5.2 Reasons for departures	O	O	O	13
	1.1.5.3 Different accounting bases (IAS 1, Par. 3)	O	O	O	14

1.2   ACCOUNTING POLICIES

		YES	NO	N/A	
1.2.1	**General**				
	1.2.1.1 Significant accounting policies	O	O	O	15
	1.2.1.2 Overall valuation policy (IAS 1, Par. 8)	O	O	O	16
1.2.2	**Change in Accounting Estimate**				
	Nature and amount of material change in accounting estimate or impracticality of quantifying the amount (IAS 8, Par. 3)	O	O	O	17

1.2.3   **Property Plant and Equipment**

1.2.3.1 Accounting policies adopted for each class of property, plant and equipment   O   O   O   18

1.2.3.2 Depreciation methods and rates, or useful lives   O   O   O   19

1.2.3.3 Restoration costs [IAS 4, Par. 15; IAS 16, Par. 16 (a), (b) and (d); IAS 16, Par. 67 (c)]   O   O   O   20

1.2.3.4 Effect of changes in estimated useful lives of depreciable assets (IAS 4, Par. 8)   O   O   O   21

1.2.3.5 Effect and reason for changing depreciation methods (IAS 4, Par.12)   O   O   O   22

1.2.4   **Investments**

1.2.4.1 Accounting policy for investments   O   O   O   23

1.2.4.2 Determination of carrying amounts   O   O   O   24

1.2.4.3 Treatment of changes in market value of current assets   O   O   O   25

1.2.4.4 Treatment of revaluation surpluses on sale of revalued investments [IAS 25, Par. 49 (a)]   O   O   O   26

1.2.5   **Subsidiaries and Associates**

1.2.5.1 Method used to account for subsidiaries [IAS 27, Par. 29 (a) & (b); IAS 27, Par. 30; IAS 27, Par. 32 (c)]   O   O   O   27

1.2.5.2 Method used to account for associates [IAS 28, Par. 14; IAS 28, Par. 27 (b)]   O   O   O   28

1.2.6   **Inventories**

Accounting policies for measuring inventories (stock and work–in–progress), including cost–formula used [IAS 2, Par. 34 (a)]   O   O   O   29

1.2.7   **Goodwill and Intangible Assets**

Accounting treatment for goodwill, negative goodwill and intangible assets [IAS 4, Par. 14; 15; IAS 5, Par. 12; IAS 22, Par. 72 (a)]   O   O   O   30

1.2.8   **Retirement Benefits**

1.2.8.1 Accounting treatment for retirement benefit costs   O   O   O   31

1.2.8.2 Description of actuarial valuation method [IAS 5, Par. 10 (c); IAS 19, Par. 51 (b)]   O   O   O   32

1.2.9   **Tax**

Accounting method for tax–effect accounting (IAS12, Par. 1)   O   O   O   33

	YES	NO	N/A	

1.2.10 **_Borrowing Costs_**
Accounting policy for borrowing costs
[IAS 23, Par. 9; IAS 23, Par. 29 (a)]   O   O   O   34

1.2.11 **_Research and Development_**
Accounting policy for research and development costs
[IAS 9, Par. 30 (a)]   O   O   O   35

1.2.12 **_Revenue Recognition_**
Accounting policy for revenue recognition [IAS 18, Par. 35 (a)]   O   O   O   36

1.2.13 **_Construction Contracts_**
1.2.13.1 Accounting policy for recognition of revenue from long–term construction contracts   O   O   O   37

1.2.13.2 Methods of determination of revenue and stages of completion [IAS 11, Par. 39 (b) & (c)]   O   O   O   38

1.2.14 **_Finance Leases_**
Accounting basis used by lessor to recognise income on finance leases [IAS 17, Par. 53)]   O   O   O   39

1.2.15 **_Government Grants_**
Accounting policy for government grants and method of presentation [IAS 20, Par. 39 (a)]   O   O   O   40

1.2.16 **_Financial Instruments_**
Accounting policy for recognition, measurement and hedge accounting of financial instruments (IAS 32, Par. 49 (b); IAS 32, Par. 93)   O   O   O   41

1.2.17 **_Discontinuance of Operations_**
Accounting policy used to measure gains or losses on discontinuance of operations [IAS 8, Par. 20 (e)]   O   O   O   42

1.2.18 **_Changing Prices_**
Methods adopted, and nature of indices used, to reflect the effects of changing prices (IAS 15, Par. 23)   O   O   O   43

1.3 **CHANGES IN ACCOUNTING POLICY**

1.3.1 **_Benchmark Treatment – Adjust Opening Retained Earnings_**
1.3.1.1 Reasons for material changes (IAS 8, Par. 53 (a); IAS 19, Par. 50)   O   O   O   44

1.3.1.2 Effect of changes in accounting policies relating on the current period and each period presented
(IAS 8, Par. 53 (b); IAS 8, Par. 54) O O O 45

1.3.1.3 Effect of changes in accounting policies relating to periods prior to those included in the comparative information [IAS 8, Par. 53 (c)] O O O 46

1.3.1.4 Restatement of comparative information or disclosure of impracticability of restatement [IAS 8, Par. 53 (d)] O O O 47

1.3.2 **_Allowed Alternative Treatment – Include in Current Year's Income Statement_**

1.3.2.1 Reasons for material changes [IAS 8, Par. 57 (a)] O O O 48

1.3.2.2 Amount of adjustment recognised in net profit or loss in the current period [IAS 8, Par. 57 (b)] O O O 49

1.3.2.3 Amount of adjustment for each period for which _pro forma_ information is presented and for periods prior to those included in the financial statements. If impracticable to do so, this fact is disclosed [IAS 8, Par. 57 (c)] O O O 50

1.4 **FUNDAMENTAL ERRORS**

1.4.1 **_Benchmark Treatment – Adjust Opening Retained Earnings_**

1.4.1.1 Nature of fundamental errors [IAS 8, Par. 37 (a)] O O O 51

1.4.1.2 Amount of the correction for current period and for each prior period presented [IAS 8, Par. 37 (b)] O O O 52

1.4.1.3 Amount of the correction for periods prior to those included in the comparative information [IAS 8, Par. 37 (c)] O O O 53

1.4.1.4 Restatement of comparative information or disclosure of the impracticability of restatement [IAS 8, Par. 37 (d); IAS 8, Par. 38] O O O 54

1.4.2 **_Allowed Alternative Treatment – Include in Current Year's Income Statement_**

1.4.2.1 Nature of the fundamental error [IAS 58, Par. 40 (a)] O O O 55

		YES	NO	N/A	
1.4.2.2	Amount of the correction recognised in net profit or loss for current period [IAS 8, Par. 40 (b)]	O	O	O	56
1.4.2.3	Amount of the correction in each period for which *pro forma* information is presented	O	O	O	57
1.4.2.4	Amount of the correction for periods prior to those included in the *pro forma* information or disclosure of the impracticability of presenting *pro forma* information [IAS 8, Par. 40 (c)]	O	O	O	58

1.5 OTHER ITEMS

	Security given in respect of liabilities (that is, carrying amount of inventory and PPE pledged) [IAS 2, Par. 34 (f); IAS 5, Par. 10 (b); IAS 16, Par. 67 (b)]	O	O	O	59

1.6 BUSINESS COMBINATIONS DURING THE PERIOD

1.6.1	Names and descriptions of combining enterprises [IAS 22, Par. 70 (a)]	O	O	O	60
1.6.2	Method of accounting [IAS 22, Par. 70 (b)]	O	O	O	61
1.6.3	Effective date for accounting purposes [IAS 22, Par. 70 (c)]	O	O	O	62
1.6.4	Any operations resulting from business combinations which the enterprise has decided to dispose of [IAS 22, Par. 70 (d)]	O	O	O	63
1.6.5	Nature and amount of provisions for restructuring and other plant closure expenses related to an acquisition [IAS 22, Par. 71 (c)]	O	O	O	64
1.6.6	Information about business combinations effected after the balance sheet date or the fact that it is impracticable to disclose such information (IAS 22, Par. 76)	O	O	O	65

1.7 ACQUISITIONS

1.7.1	Percentage of voting shares acquired [IAS 22, Par. 71 (a)]	O	O	O	66
1.7.2	Cost of acquisition and description of purchase consideration paid or contingently payable [IAS 22, Par. 71 (b)]	O	O	O	67

YES   NO   N/A

1.7.3   If fair values of the assets and liabilities or the purchase consideration is only determinable on a provisional basis, state this fact and the reasons and any subsequent adjustments (IAS 22, Par. 73)   O   O   O   68

1.8   **UNITING OF INTERESTS**

1.8.1   Description and number of shares issued [IAS 22, Par. 74 (a)]   O   O   O   69

1.8.2   Percentage of each enterprise's voting shares exchanged
[IAS 22, Par. 74 (a)]   O   O   O   70

1.8.3   Amounts of assets and liabilities contributed by each enterprise [IAS 22, Par. 74 (b)]   O   O   O   71

1.8.4   Sales revenue, other operating revenues, extraordinary items and the net profit or loss of each enterprise prior to the date of the combination that are included in net profit or loss of the combined enterprise [IAS 22, Par. 74 (c)]   O   O   O   72

1.9   **CONSOLIDATED FINANCIAL STATEMENTS**

1.9.1   Reasons why consolidated financial statements have not been presented and basis on which subsidiaries are accounted for (IAS 27, Par. 8)   O   O   O   73

1.9.2   Name and registered office of its parent that publishes consolidated financial statements (IAS 27, Par. 8)   O   O   O   74

1.9.3   Listing of all significant subsidiaries, including name, country of incorporation, ownership interest, and voting interest (if different) [IAS 27, Par. 32 (a)]   O   O   O   75

1.9.4   Reasons for not consolidating a subsidiary and the basis on which such subsidiary is accounted for [IAS 27, Par. 32 (b) (i)]   O   O   O   76

1.9.5   Nature of relationship between parent and subsidiary if parent does not own, directly or indirectly, more than 50% of the voting power [IAS 27, Par. 32 (b) (ii)]   O   O   O   77

1.9.6   Name of an enterprise in which more than 50% of the voting power is owned, directly or indirectly, but which, because of the absence of control, is not a subsidiary [IAS 27, Par. 32 (b) (iii)]   O   O   O   78

	YES	NO	N/A

1.9.7 Effect of the acquisition and disposal of subsidiaries on the financial position at the reporting date, results for the reporting period and on the corresponding amounts for the preceding period [IAS 27, Par. 32 (b) (iv)]　　O　O　O　79

1.9.8 Disclose whether uniform accounting principles have been used. If not that fact should be disclosed together with he proportions of the items to which the different accounting policies have been applied (IAS 27, Par. 21)　　O　O　O　80

1.10　FOREIGN CURRENCY

1.10.1 *General*

1.10.1.1 Net exchange differences classified as a separate component of equity and reconciliation of such amounts at beginning and end of the period [IAS 21, Par. 17; IAS 21 Par. 19; IAS 21, Par. 42 (b)]　　O　O　O　81

1.10.1.2 Nature and reason of change in classification of a foreign operation [IAS 21, Par. 44 (a) & (b)]　　O　O　O　82

1.10.1.3 Impact of change in classification of a foreign operation on shareholders' equity [IAS 21, Par. 44 (c)]　　O　O　O　83

1.10.2 *Allowed Alternative Treatment*

Amount of exchange differences arising during the period included in the carrying amount of an asset under the allowed alternative treatment [IAS 21, Par. 21; IAS 21, Par. 42 (c)]　　O　O　O　84

PART 2 – BALANCE SHEET

		YES	NO	N/A	

2.1   CURRENT ASSETS[67]

2.1.1   General
Total amount of current assets (IAS 13, Par. 19)   O   O   O   85

2.1.2   Cash and Bank Balances
Cash subject to short–term restrictions [IAS 5, Par. 13 (a); IAS 13, Par. 13 (a)]   O   O   O   86

2.1.3   Marketable Securities
2.1.3.1 Marketable   securities   other   than   long–term investments [IAS 5, Par. 13 (b); IAS 13, Par. 13 (b)]   O   O   O   87

2.1.3.2 Market value of marketable securities if different from carrying amount [IAS 5, Par. 13 (b); IAS 25, Par. 49 (c)]   O   O   O   88

2.1.4   Receivables and Prepaid Expenses
2.1.4.1 Trade receivables due from:
(i)   Directors   O   O   O   89
(ii)   Intercompany   O   O   O   *90*
(iii)   Associates   O   O   O   91
(iv)   Other
(IAS 5, Par. 12 (b); IAS 5, Par. 13 (c); IAS 2, Par. 22)   O   O   O   92

2.1.4.2 Amount of receivables and prepaid expenses expected   to be   realised within one year of balance sheet date [IAS 13, Par. 43 (c)]   O   O   O   93

2.1.4.3 Gross amount due from customers for construction contract work–in–progress [IAS 11, Par. 42 (a)]   O   O   O   94

2.1.4.4 Advance payments on purchase of current assets [IAS 13, Par. 13 (e)]   O   O   O   95

2.1.4.5 Prepaid expenses expected to be used up within one year [IAS 5, Par. 13 (c); IAS 13, Par. 13 (f)]   O   O   O   96

---

[67] IAS 13 "Presentation of Current Assets and Current Liabilities", paragraphs 13 to 21, apply to those enterprises which present a balance sheet with a distinction between current and non–current assets.

	YES	NO	N/A	

2.1.5 *Inventories*

2.1.5.1 Inventories [IAS 5, Par. 13 (d); IAS 13, Par. 13 (d)]

    O   O   O   97

2.1.5.2 Carrying amount of inventories in total and by appropriate classifications [IAS 2, Par. 34 (b)]

    O   O   O   98

2.1.5.3 Amount of inventories carried at net realisable value [IAS 2, Par. 34 (c)]

    O   O   O   99

2.1.5.4 Amount and circumstances related to reversals of write–downs of inventories recognised as income in the period [IAS 2, Par. 34 (b) and (e)]

    O   O   O   100

Allowed Alternative Treatment

2.1.5.5 When the cost of inventories is determined using LIFO, disclose the difference between LIFO carrying amount of inventories and the lower of current cost and net realisable value [IAS 2, Par. 36 (a) & (b)]

    O   O   O   101

2.1.5.6 Deduction of progress payments and advances from related construction work in progress (IAS 13, Par. 21)

    O   O   O   102

2.2 LONG–TERM ASSETS

2.2.1 *Property, Plant and Equipment (PPE)*

2.2.1.1 Analysis between
- (i) Land and buildings   O O O 103
- (ii) Plant and equipment   O O O 104
- (iii) Other categories   O O O 105
- (iv) Separate disclosure should be made of lease holds and of assets being acquired on installment purchase plans

[IAS 5, Par. 11 (a), (b), & (c)]

    O   O   O   106

2.2.1.2 For each class of PPE, gross carrying amount for each category if different bases are used [IAS 16, Par. 66 (a)]

    O   O   O   107

2.2.1.3 For each class of PPE, gross carrying amount and accumulated depreciation at beginning and end of period [IAS 5, Par. 11 (d);IAS 16, Par. 66 (d)]

    O   O   O   108

2.2.1.4 For each class of PPE, reconciliation of carrying amount at beginning and end of period [IAS 16, Par. 66 (e)]   O   O   O   109

2.2.1.5 Whether future cash flows have been discounted in determining recoverable amounts [IAS 16, Par. 67 (a)]   O   O   O   110

2.2.1.6 Existence and amounts of restrictions on title and assets pledged as security [IAS 16, Par. 67 (b); IAS 2, Par. 34 (f); IAS 5, Par. 10 (a)]   O   O   O   111

2.2.1.7 Expenditures on assets under construction [IAS 16, Par. 67 (d)]   O   O   O   112

2.2.1.8 Costs incurred and recognised profits less recognised losses to date, on long–term construction contracts in progress at balance sheet date [IAS 11, Par. 40 (a)]   O   O   O   113

Allowed Alternative Treatment
2.2.1.9 When PPE are stated at revalued amounts under the allowed alternative treatment:

(i)   Revaluation basis   O   O   O   114
(ii) Effective date of revaluation   O   O   O   115
(iii) Involvement of independent valuers   O   O   O   116
(iv) Nature of indices used to determine
      replacement cost   O   O   O   117
(v)   Hypothetical carrying amounts (as if carried at
      cost less depreciation) for each class   O   O   O   118
(vi) Revaluation surplus, movement for period and
      any restrictions on its distribution to
      shareholders
      (IAS 16, Par. 70)   O   O   O   119

2.2.2   *Other Long–Term Assets*
2.2.2.1 Method and period of depreciation of long–term assets other than PPE (IAS 5, Par. 12)   O   O   O   120

2.2.2.2 Unusual write–offs during the period of long–term assets other than PPE (IAS 5, Par. 12)   O   O   O   121

2.2.2.3 Long term receivables broken down between accounts and notes receivable, receivables from directors, intercompany receivables, receivables from associates and other receivables [IAS 5, Par. 12 (b)]   O   O   O   122

	YES	NO	N/A
2.2.2.4 Amortisation methods, useful lives or amortisation rates, reconciliation of the carrying amount of development costs recognised as an asset at the beginning and the end of the period [IAS 9, Par. 30 (c), (d) & (e)]	O	O	O	123
2.2.2.5 Patents, trademarks, and similar assets [IAS 5, Par. 12 (d)]	O	O	O	124
2.2.2.6 Expenditure carried forward eg deferred taxes, preliminary expenses [IAS 5, Par. 12 (e)]	O	O	O	125

2.2.3 ***Other Long–Term Investments***
2.2.3.1 Investments analysed into:

	YES	NO	N/A	
(i) Subsidiaries (if not consolidated)	O	O	O	126
(ii) Associates	O	O	O	127
(iii) Other [IAS 5, Par 12 (a)]	O	O	O	128
2.2.3.2 Fair value of investment properties if accounted for as long–term investments and not carried at fair value [IAS 25, Par. 28 (b); IAS 25, Par. 49 (d)]	O	O	O	129
2.2.3.3 Significant restrictions on realisability of investments or remittance of income and proceeds of disposal [IAS 25, Par. 49 (e)]	O	O	O	130
2.2.3.4 Frequency, basis of revaluations, date of latest revaluation of long–term investments, and if external valuer is used [IAS 25, Par. 49 (f)]	O	O	O	131
2.2.3.5 For enterprises the main business of which is the holding of investments, analysis of the portfolio [IAS 25, Par. 49 (h)]	O	O	O	132
2.2.3.6 Investment enterprises: summary of movements in value of their investments for period (IAS 25, Par. 45)	O	O	O	133

2.2.4 ***Investments in Associates***

	YES	NO	N/A	
2.2.4.1 Listing and description of significant associates, proportion of ownership interest and, if different, proportion of voting power held [IAS 28, Par. 27 (a)]	O	O	O	134
2.2.4.2 The method used to account for such associates [IAS 28, Par. 27 (b)]	O	O	O	135

	YES	NO	N/A
2.2.4.3 Investments in associates accounted for using the equity method (IAS 28, Par. 28)	O	O	O	136

2.2.5 **_Joint Ventures_**

	YES	NO	N/A
2.2.5.1 Listing and description of interests in significant joint ventures, proportion of ownership interest, aggregate amounts of items related to the interests in joint ventures (that is, current assets, long–term assets, current liabilities, long–term liabilities, income and expenses) (IAS 31, Par. 47)	O	O	O	137
2.2.5.2 Aggregate amount of contingencies related to interests in joint ventures [IAS 31, Par. 45 (a), (b) & (c)]	O	O	O	138
2.2.5.3 Aggregate amount of commitments in respect of interests in joint ventures [IAS 31, Par. 46 (a) & (b)]	O	O	O	139

2.2.6 **_Financial Instruments_**

	YES	NO	N/A
2.2.6.1 For each class of financial asset, financial liability and equity instrument: extent and nature and significant terms and conditions that may affect timing, amount, and certainty of cash flow [IAS 32, Par. 47 (a)]	O	O	O	140
2.2.6.2 The accounting polices and methods adopted, including the criteria for recognition and the basis of measurement applied [IAS32, Par. 47 (b)]	O	O	O	141
2.2.6.3 For each class of financial asset: exposure to interest rate risk including contractual repricing or maturity dates, and effective interest rates (IAS 32, Par. 56)	O	O	O	142
2.2.6.4 For each class of financial asset: exposure to credit risk including maximum credit exposure at balance sheet date and significant concentrations of credit risk (IAS 32, Par. 67)	O	O	O	143
2.2.6.5 For each class of financial asset and financial liability: information about fair value (IAS 32, Par. 77)	O	O	O	144
2.2.6.6 Carrying amount and fair value of financial assets carried at an amount in excess of their fair value [IAS 32, Par. 88 (a)]	O	O	O	145

		YES	NO	N/A	
2.2.6.7	Reasons for not reducing the carrying amount of financial assets carried at an amount in excess of their fair value [IAS 32, Par. 90 (b)]	O	O	O	146
2.2.6.8	Description of anticipated transactions, hedging instruments and amount and the expected timing of recognition of deferred or unrecognised gain or loss as income or expense (IAS 32, Par. 91)	O	O	O	147
2.2.6.9	Separate classification of component parts of financial instruments as equity or liability (IAS 32, Par. 23)	O	O	O	148

2.3 CURRENT LIABILITIES

		YES	NO	N/A	
2.3.1	Total amount of current liabilities (IAS 13, Par. 19)	O	O	O	149
2.3.2	Bank loans and overdrafts [IAS 13, Par. 15 (a)]	O	O	O	150
2.3.3	Other loans [IAS 13, Par. 15 (a)]	O	O	O	151
2.3.4	Current portions of long–term liabilities except in case of long–term debt to be refinanced; state amount and terms [IAS 5, Par. 15 (b); IAS 13, Par. 15 (b); IAS 13, Par. 16; IAS 13, Par. 18]	O	O	O	152
2.3.5	*Payables:*				
	2.3.5.1 Trade	O	O	O	153
	2.3.5.2 To directors	O	O	O	154
	2.3.5.3 Intercompany	O	O	O	155
	2.3.5.4 To associates	O	O	O	156
	2.3.5.5 Taxes on income	O	O	O	157
	2.3.5.6 Dividends Payable	O	O	O	158
	2.3.5.7 Other [IAS 5, Par. 15 (c); IAS 13, Par. 15 (c), (d) & (e)]	O	O	O	159
2.3.6	*Gross amount due to customers for construction contract work as a liability* [IAS 11, Par. 42 (d)]	O	O	O	160
2.3.7	*Dividends proposed or declared after balance sheet date but before the date of approval of the financial statements* (IAS 10, Par. 31)	O	O	O	161
2.3.8	*Deferred revenues and advances from customers* [IAS 5, Par. 16; IAS 11, Par. 40 (b); IAS 13, Par. 15 (f)]	O	O	O	162

	YES	NO	N/A

2.4 LONG–TERM LIABILITIES

2.4.1 Secured loans excluding the portion repayable within one year
[IAS 5, Par. 14 (a)]

| O | O | O | 163 |

2.4.2 Unsecured loans excluding portion repayable within one year
[IAS 5, Par. 14 (b)]

| O | O | O | 164 |

2.4.3 Intercompany loans excluding portion repayable within one year
[IAS 5, Par. 14 (c)]

| O | O | O | 165 |

2.4.4 Loans from associates excluding the portion repayable within one year [IAS 5, Par. 14 (d)]

| O | O | O | 166 |

2.4.5 Unamortised premium or discount (IAS 5, Par. 14)

| O | O | O | 167 |

2.4.6 Summary of interest rates, repayment terms, covenants, subordinations, conversion features (IAS 5, Par. 14)

| O | O | O | 168 |

2.4.7 Other Significant liabilities and provisions

| O | O | O | 169 |

2.4.8 Security given in respect of liabilities [IAS 5, Par. 10 (b)]

| O | O | O | 170 |

2.4.9 Liabilities which contain an option to convert to shares (IAS 32, Par.23)

| O | O | O | 171 |

2.4.10 Preferred shares which in substance, are liabilities (IAS 32, Par. 18)

| O | O | O | 172 |

2.4.11 Nature of a financial instrument where balance sheet presentation differs from the legal form (IAS 32, Par.50)

| O | O | O | 173 |

2.4.12 Minority interests – separately from liabilities and shareholders' equity (IAS 27, Par. 26)

| O | O | O | 174 |

2.5 SHAREHOLDERS' EQUITY

For each class of capital:

2.5.1 Number or amount of shares authorised, issued and outstanding

| O | O | O | 175 |

2.5.2 Capital not yet paid in

| O | O | O | 176 |

2.5.3 Par or legal value per share

| O | O | O | 177 |

2.5.4 Movement in share capital accounts during the period

| O | O | O | 178 |

2.5.5 Rights, preferences, restrictions on dividends and repayment of capital

| O | O | O | 179 |

	YES	NO	N/A	
2.5.6 Cumulative preferred dividends in arrears	O	O	O	180
2.5.7 Required shares	O	O	O	181
2.5.8 Terms and amounts of shares reserved under options and sales contracts [IAS 5, Par. 17 (a)]	O	O	O	182

2.6   SURPLUS AND RESERVES

Movement for the period and restrictions on distribution for:

	YES	NO	N/A	
2.6.1 Revaluation surplus	O	O	O	183
2.6.2 Reserves	O	O	O	184
2.6.3 Retained earnings [IAS 5, Par. 17 (b); IAS 16, Par. 70 (f); IAS 25, Par. 49 (g)]	O	O	O	185

PART 3 – INCOME STATEMENT

		YES	NO	N/A	

3.1   REVENUE

3.1.1   *Sale of goods and rendering of services:*
3.1.1.1 Accounting policy for the recognition of revenue   O   O   O   186
3.1.1.2 Methods adopted to determine the stages of completion of transactions involving the rendering of services
[IAS 5, Par. 18 (a)]   O   O   O   187

3.1.2   Construction contract revenue [IAS 11, Par. 39 (a)]   O   O   O   188

3.1.3   Other operating revenues [IAS 5, Par. 18 (a)]   O   O   O   189

3.1.4   Amount of each significant category of revenue
[IAS 18, Par. 35 (b)]   O   O   O   190

3.1.5   Revenue from exchanges of goods or services rendered included in each significant category of revenue [IAS 18, Par. 35 (c)]   O   O   O   191

3.1.6   Reversals of write–downs of inventories recognised as income [IAS 2, Par. 34 (d)]   O   O   O   192

3.2   COST OF SALES

3.2.1 Cost of inventories expensed during period or operating costs applicable to revenues, expensed during period, classified by their nature (IAS 2, Par. 37 (a); IAS 2, Par. 38; IAS 2, Par. 37 (b); IAS 2, Par. 39)   O   O   O   193

3.2.2   Significant write–downs of inventories
(IAS 2, Par. 40; IAS 8, Par. 16)   O   O   O   194

3.3   OTHER ITEMS

3.3.1   Interest income [IAS 5, Par. 18 (c)]   O   O   O   195

3.3.2   Income from investments:
3.3.2.1 Interest, royalties, dividends, rentals on long–term and current investments   O   O   O   196
3.3.2.2 Profits/losses on disposal   O   O   O   197

340

		YES	NO	N/A	
3.3.2.3	Changes in value (for example, unrealised gains/losses), and other than temporary declines in carrying value of long–term investments, reductions to market value and reversals of such reductions [IAS 5, Par. 18 (d); IAS 18, Par. 35 (d); IAS 25, Par. 41; IAS 25, Par. 49 (b)]	O	O	O	198
3.3.3	Share of profits/losses of associates accounted for under equity method and, separately, share of any extraordinary or prior period items (IAS 28, Par. 28)	O	O	O	199
3.3.4	Depreciation [IAS 4, Par. 15 (c); IAS 5, Par. 18 (b)]	O	O	O	200
3.3.5	Effect of change in depreciation rates (IAS 4, Par. 8)	O	O	O	201
3.3.6	Unusual write–offs of long–term assets [IAS 5, Par. 12; IAS 16, Par. 66 (e); IAS 22, Par. 72 (d)]	O	O	O	202
3.3.7	Research and development costs expensed in the period [IAS 9, Par. 30 (b)]	O	O	O	203
3.3.8	Retirement benefit plan expense (or income) [IAS 19, Par. 22 (b); IAS 19, Par. 51 (b)]	O	O	O	204
3.3.9	Interest expense [IAS 5, Par. 18 (e)]	O	O	O	205
3.3.10	Exchange differences included in the net profit or loss [IAS 21, Par. 42 (a)]	O	O	O	206
3.3.11	Impact of change in classification of a significant foreign operation on net profit or loss for each prior period presented [IAS 21, Par. 44 (d)]	O	O	O	207
3.3.12	Profit or loss from ordinary activities [IAS 8, Par. 10 (a)]	O	O	O	208
3.3.13	Nature and amount of items resulting from ordinary business, the size, nature or incidence of which is relevant to explain performance (IAS 8, Par. 16)	O	O	O	209
3.3.14	*Taxes:* 3.3.14.1 Taxes on income (IAS 5, Par. 18 (f); IAS 12, Par. 22; IAS 12, Par. 38)	O	O	O	210
	3.3.14.2 Tax expense related to income from ordinary activities [IAS 12, Par. 41; IAS 21, Par. 49 (a)]	O	O	O	211

		YES	NO	N/A	
	3.3.14.3 Tax saving recognised as a benefit in the period of the loss [IAS 12, Par. 48 (a)]	O	O	O	212
	3.3.14.4 Tax saving included in net income that had not been accounted for in the period of the loss [IAS 12, Par. 48 (b)]	O	O	O	213
	3.3.14.5 Tax expense related to extraordinary items, to corrections of fundamental errors and to changes in accounting policies [IAS 12, Par. 41; IAS 12, Par. 49 (b)]	O	O	O	214
	3.3.14.6 Tax effects related to revaluation of assets in excess of historical cost or previous revaluation [IAS 12, Par. 49 (c)]	O	O	O	215
3.3.15	*Discontinuance of Operations*				
	3.3.15.1 Gain or loss on discontinuance of operations [IAS 8, Par. 20 (e)]	O	O	O	216
	3.3.15.2 Revenue and profit or loss from the ordinary activities of discontinued operation for the period, together with corresponding amounts for each prior period presented *[IAS 8, Par. 20 (f)]*	O	O	O	217
3.3.16	Minority interest in income of group	O	O	O	218
3.3.17	*Extraordinary Items*				
	3.3.17.1 Extraordinary charges [IAS 5, Par. 18 (g)]	O	O	O	219
	3.3.17.2 Extraordinary credits [IAS 5, Par. 18 (h)]	O	O	O	220
	3.3.17.3 Nature and amount of each extraordinary item (IAS 8, Par. 10 (b); IAS 8, Par. 11)	O	O	O	221
	3.3.17.4 Tax expense related to extraordinary items [IAS 12, Par. 41; IAS 12, Par. 49 (b)]	O	O	O	222
3.3.18	Gain or loss on net monetary position resulting from restatement of financial statements in the currency of a hyperinflationary economy (IAS 29, Par. 9)	O	O	O	223
3.3.19	Interest, dividends, losses, and gains relating to financial instruments classified as a financial liability (IAS 32, Par. 32)	O	O	O	224
3.3.20	Significant intercompany transactions [IAS 5, Par. 18 (i)]	O	O	O	225
3.3.21	Net profit or loss (IAS 5, Par. 18 (j); IAS 8, Par. 7)	O	O	O	226

PART 4 – CASH FLOW STATEMENT

		YES	NO	N/A	
4.1	Cash flows classified by operating, investing and financing activities (IAS 7, Par. 10)	O	O	O	227
4.2	Major classes of gross cash receipts and gross cash payments when direct method is used (IAS 7, Par. 18)	O	O	O	228
4.3	Major classes of gross cash receipts and gross cash payments from investing and financing activities (except those cash flows that are properly reported on a net basis) (IAS 7, Par. 21)	O	O	O	229
4.4	Cash flows from extraordinary items (IAS 7, Par. 29)	O	O	O	230
4.5	Cash flows from interest and dividends received (IAS 7, Par. 31)	O	O	O	231
4.6	Cash flows from taxes on income (IAS 7, Par. 35)	O	O	O	232
4.7	Cash flows from acquisitions and from disposals of subsidiaries or other business units, presented separately and classified as investing activities (IAS 7, Par. 39)	O	O	O	233
4.8	For acquisition and disposals of subsidiaries or other business units during the period: 4.8.1 Total purchase or disposal consideration [IAS 7, Par. 40 (a)]	O	O	O	234
	4.8.2 Portion of purchase or disposal consideration discharged in cash and cash equivalents [IAS 7, Par. 40 (b)]	O	O	O	235
	4.8.3 Cash and cash equivalents in subsidiary or business unit acquired or disposed of [IAS 7, Par. 40 (c)]	O	O	O	236
	4.8.4 Non–cash assets and liabilities of subsidiary, or business unit, acquired or disposed of, summarised by each major category [IAS 7, Par. 40 (d)]	O	O	O	237
4.9	Non–cash investing and financing transactions excluded from cash and cash equivalents and disclosed elsewhere in the financial statements (IAS 7, Par. 43)	O	O	O	238

		YES	NO	N/A	
4.10	Components of cash and cash equivalents and reconciliation of amount with equivalent items reported in balance sheet (IAS 7, Par. 45)	O	O	O	239
4.11	Cash and cash equivalent balances not available for use by the group (IAS 7, Par. 48)	O	O	O	240
4.12	The effect of changes in exchanges rates on cash and cash equivalents (IAS 7, Par. 28)	O	O	O	241

PART 5 – OTHER DISCLOSURES

		YES	NO	N/A	

5.1 CONTINGENCIES

5.1.1	Accruals for probable contingent losses [IAS 10, Par. 8; IAS 13, Par. 15 (g)]	O	O	O	242
5.1.2	Nature, uncertain factors and estimated financial effect of contingent liabilities/losses unless possibility of loss is remote [IAS 5, Par. 10 (d); IAS 10, Par. 9; IAS 10, Par. 22; IAS 12, Par. 50; IAS 20, Par. 39 (c)]	O	O	O	243
5.1.3	Nature, uncertain factors and estimated financial effect of probable contingent assets/gains [IAS 5, Par. 10 (d); IAS 10, Par. 16; IAS 10, Par. 22; IAS 12, Par. 50]	O	O	O	244

5.2 COMMITMENTS

	Amounts committed for future capital expenditure, including the acquisition of P, P & E [IAS 5, Par. 10 (e);.IAS 16, Par. 67(e)]	O	O	O	245

5.3 GOVERNMENT ASSISTANCE

5.3.1	Forms of government assistance received, and nature and extent of government grants recognised [IAS 20, Par. 39 (b)]	O	O	O	246
5.3.2	Nature and extent of government grants recognised [IAS 20, Par. 39 (b)]	O	O	O	247
5.3.3	Unfulfilled conditions and other contingencies attaching to government assistance that has been recognised (IAS 20, Par. 39 (c))	O	O	O	248
5.3.4	Nature and extent of government grants received as compensation for expenses or losses already incurred or as immediate financial support with no future related costs [IAS 20, Par. 20; IAS 20, Par. 39 (b)]	O	O	O	249

5.4 INCOME TAXES

5.4.1	Deferred taxes (IAS 5, Par. 12 (e); IAS 12, Par. 42)	O	O	O	250

	YES	NO	N/A	
5.4.2 Amount of current and cumulative timing differences not accounted for (IAS 12, Par. 18)	O	O	O	251
5.4.3 Taxes relating to an item included in shareholders' equity (IAS 12, Par. 39)	O	O	O	252
5.4.5 Explanation of relationship between tax expense and accounting income if not explained by tax rates effective in the country of the reporting enterprise [IAS 12, Par. 49 (d)]	O	O	O	253
5.4.6 Contingencies related to taxes on income (IAS 12, Par. 50)	O	O	O	254

5.5 INTEREST CAPITALISED

	YES	NO	N/A	
Amount of borrowing costs capitalised during the period and capitalisation rate used [IAS 23, Par. 29 (b) & (c)]	O	O	O	255

5.6 LEASES

***5.6.1** For lessees:*

	YES	NO	N/A	
5.6.1.1 Assets held under finance leases and related liabilities divided between current and long–term portion (IAS 17, Par. 21)	O	O	O	256
5.6.1.2 Amounts and timing of future minimum lease payments beyond one year (IAS 17, Par. 24)	O	O	O	257
5.6.1.3 Significant financing restrictions, renewal or purchase options, contingent rentals and other contingencies (IAS 17, Par. 26)	O	O	O	258

***5.6.2** For lessors:*

	YES	NO	N/A	
5.6.2.1 Gross investment in finance leases, related unearned income, unguaranteed residual values of assets, and basis used for allocating income (IAS 17, Par. 28; IAS 17, Par. 51; IAS 7, Par. 53)	O	O	O	259
5.6.2.2 For each major class of assets when a significant part of the lessor's business involves operating leases: cost and accumulated depreciation that are subject of operating leases (IAS 17, Par. 44; IAS 17, Par. 54)	O	O	O	260
5.6.2.3 Leaseholds and assets being acquired on installment purchase plans (IAS 5, Par. 11)	O	O	O	261

		YES	NO	N/A	

5.7 RETIREMENT BENEFITS

		YES	NO	N/A	
5.7.1	Provisions for pensions (IAS 19, Par. 51)	O	O	O	262
5.7.2	Description of retirement benefit plans, employee groups covered [IAS 19, Par. 22 (a); IAS 19, Par. 51 (a)]	O	O	O	263
5.7.3	Significant matters related to retirement benefits that affect comparability [IAS 19, Par. 22 (c)]	O	O	O	264

5.7.4 _Actuarial details_

		YES	NO	N/A	
	5.7.4.1 Funding of retirement benefit plans	O	O	O	265
	5.7.4.2 Actuarial present value of promised retirement benefits	O	O	O	266
	5.7.4.3 Fair value of plan assets (if plan is funded) [IAS 19, Par. 51 (c), (e) & (f)]	O	O	O	267
5.7.5	Amount of liability or asset and funding approach adopted if amounts funded are different from amounts recognised as income or expense since inception of plan [IAS 19, Par. 51 (g)]	O	O	O	268
5.7.6	Principal actuarial assumptions and changes in those assumptions [IAS 19, Par. 51 (h)]	O	O	O	269
5.7.7	Date of most recent actuarial valuation and frequency of valuations [IAS 19, Par. 51 (i)]	O	O	O	270
5.7.8	Other significant matters related to retirement benefits (IAS 19, Par. 51 (j))	O	O	O	271

5.8 RELATED PARTY TRANSACTIONS

		YES	NO	N/A	
5.8.1	Nature of related party relationships, types and elements of related party transactions (IAS 5, Par. 18 (i); IAS 24 Par. 22)	O	O	O	272
5.8.2	Separate disclosure of significant related party transactions (IAS 24, Par. 24)	O	O	O	273
5.8.3	Related party relationships, where control exists even if no related party transactions exist (IAS 24, Par. 20)	O	O	O	274
5.8.4	Exemptions from related party disclosures (IAS 24, Par. 4)	O	O	O	275

		YES	NO	N/A	

5.9 SEGMENTAL INFORMATION

5.9.1	Sales or other operating revenues, distinguishing between revenue from customers outside the enterprise and revenue from other segments [IAS 14, Par. 16 (a)]	O	O	O	276
5.9.2	Segment result [IAS 14, Par. 16 (b)]	O	O	O	277
5.9.3	Segment assets employed, expressed either in money amounts or as percentages of the consolidated totals [IAS 14, Par. 16 (c)]	O	O	O	278
5.9.4	Basis of intersegment pricing [IAS 14, Par. 16 (d)]	O	O	O	279
5.9.5	Description, reasons for changes, and effect of changes in accounting practices and changes in identification of segments (IAS 14, Par. 24)	O	O	O	280
5.9.6	Activities of each reported industry sequent and the composition of each reported geographical area (IAS 14, Par. 9)	O	O	O	281
5.9.7	Reconciliation of sum of information on individual sequence and aggregate information (IAS 14, Par. 9)	O	O	O	282

5.10 SUBSEQUENT EVENTS

5.10.1	Nature and estimated financial effects of material post-balance sheet events that do not affect the condition of assets or liabilities as at the balance sheet date (IAS 10, Par. 28; IAS 10, Par. 33; IAS 22, Par. 76)	O	O	O	283
5.10.2	Information on operations discontinued after the balance sheet date (IAS 8, Par. 20)	O	O	O	284

5.11 DISCONTINUED OPERATIONS

5.11.1	Nature of the discontinued operation [IAS 8, Par. 20 (a)]	O	O	O	285
5.11.2	Industry and geographical segments in which it is reported [IAS 8, Par. 20 (b)]	O	O	O	286
5.11.3	Effective date of discontinuance for accounting purposes [IAS 8, Par. 20 (c)]	O	O	O	287
5.11.4	Manner of discontinuance (sale or abandonment) [IAS 8, Par. 20 (d)]	O	O	O	288

		YES	NO	N/A	
5.12	**GOODWILL**				
5.12.1	Goodwill (positive and negative) [IAS 5, Par. 12 (c)]	O	O	O	289
5.12.2	Method selected to translate goodwill (and fair value adjustments) arising on acquisition of a foreign entity (IAS 21, Par. 45)	O	O	O	290
5.12.3	Period of amortisation [IAS 22, Par. 72 (a)]	O	O	O	291
5.12.4	Justification when amortisation period exceeds five years (IAS 22, Par. 72 (b))	O	O	O	292
5.12.5	Basis and reason for using an amortisation basis other than straight–line [IAS 22, Par. 72 (c)]	O	O	O	293
5.12.6	Reconciliation of amount at beginning and end of period [IAS 22, Par. 72 (d)]	O	O	O	294
5.13	**HYPERINFLATIONARY ECONOMIES**				
5.13.1	Identity, level of price index at balance sheet date and index movement during current and previous reporting period (IAS 29, Par. 34)	O	O	O	295
5.13.2	Restatement of financial statements in a measuring unit current at the balance sheet date [IAS 29, Par. 39 (a)]	O	O	O	296
5.13.3	Valuation basis: historical or current cost approach [IAS 29, Par. 39 (b)]	O	O	O	297
5.13.4	Identity, level of price index at balance sheet date and movement during current and previous reporting period [IAS 29, Par. 39 (c)]	O	O	O	298

PART 6 – ADDITIONAL DISCLOSURES REQUIRED BY THE COMPANIES ACT 1951 – CHAPTER 113

		YES	NO	N/A	
6.1	**SIGNATURES**				
	The Balance Sheet is signed by two directors or, if there is only one director, then by that one director (S149a)	O	O	O	299
6.2	**INCOME STATEMENT**				
6.2.1	Emoluments, pensions and compensation paid to directors and past directors (not applicable to consolidated financial statements if holding company publishes a separate income statement) (S188)	O	O	O	300
6.2.2	Auditors' remuneration (including expenses) if not fixed in general meeting [8 Sch 13; S153 (7)]	O	O	O	301
6.2.3	Amounts respectively set aside for redemption of share capital and loans [8 Sch 12 (1) (d)]	O	O	O	302
6.2.4	Transfers or proposed transfers to or from reserves [8 Sch 12, (1) (e)]	O	O	O	303
6.2.5	Transfers to or from provisions other than provisions for depreciation, renewals or diminution in value of assets and for losses of subsidiary companies [8 Sch 12 (1) (f)]	O	O	O	304
6.2.6	Dividends paid or proposed stating whether shown gross or net [8 Sch 12, (1) (h)]	O	O	O	305
6.3	**BALANCE SHEET**				
6.3.1	Share capital on which interest has been paid out of capital and rate of interest (8 Sch 2 (b); S63)	O	O	O	306
6.3.2	Earliest date of redemption on redeemable preference shares [8 Sch 2 (a); S57 (3)]	O	O	O	307
6.3.3	Capital Reserves 6.3.3.1 Capital reserves shown separately from revenue reserves (8 Sch 4 (1); 8 Sch 6)	O	O	O	308

	YES	NO	N/A
6.3.3.2 Capital redemption reserve shown separately [S57 (i)]	O	O	O	309
6.3.3.3 Share premium account shown separately (8 Sch 2 (c), S55)	O	O	O	310
6.3.4 Particulars of redeemed debentures which can be reissued	O	O	O	311
6.3.5 Trade investments quoted and unquoted:				
6.3.5.1 Quoted investments:				
(i) Subdivided between those quoted on a recognised Stock Exchange [8 Sch 3]	O	O	O	312
(ii) Show the market value if different from balance sheet value and the Stock Exchange value if lower	O	O	O	313
6.3.5.2 Unquoted investments: When held as current assets it is not necessary to show gross cost or valuation and amount written off, but any deficiency in value should be provided for	O	O	O	314
6.3.6 Loans to employees to enable them to purchase fully paid shares in the company or its holding company [8 Sch 8 (1) (c); S53 (1)]	O	O	O	315
6.3.7 Loans to directors or officers of the company (made by the company or a subsidiary, or a third party on the security/guarantee of the company/any subsidiary) unless made in the ordinary course of business or of £2000 or under to employees [S189 (1), (2)]	O	O	O	316
6.3.8 Nominal amount and book value of debentures held by a nominee a trustee of the company (8 Sch 10)	O	O	O	317
6.3.9 Preliminary expenses not written off [8 Sch 3 (a)]	O	O	O	318
6.3.10 Share/debenture issue expenses not written off [8 Sch (b)]	O	O	O	319
6.3.11 Share/debentures commission not written off [8 Sch 3 (c)]	O	O	O	320
6.3.12 Discount on issue of debentures not written off [8 Sch 3 (d)]	O	O	O	321
6.3.13 Discount on issue of shares not written off [8 Sch 3 (e)]	O	O	O	322

6.3.14 Disclosure by the directors whether in their opinion the realisable value of current assets in the ordinary course of business is less than their balance sheet value [8 Sch 11 (7)]   O   O   O   323

6.4 GROUP FINANCIAL STATEMENTS

6.4.1 If the financial years of subsidiaries are not co–terminous with that of the holding company, then reasons and the date at which the last preceding financial statements were closed must be disclosed in an annexure to the consolidated financial statements or in the directors' report (8 Sch 15 (6); 8 Sch 22)   O   O   O   324

6.4.2 *Aggregate of auditors' remuneration of all companies where it has not been fixed by general meeting, should be shown in the consolidated profit and loss account* [S146 (2)]   O   O   O   325

6.4.3 *Information to be shown in relation to subsidiaries not included in the consolidated financial statements:*

6.4.3.1 Particulars of shareholdings and indebtedness shown separately in the consolidated financial statements as in the financial statements of a holding company [8 Sch 21, 8 Sch 15 (2)]   O   O   O   326

6.4.3.2 Notes of holdings of such subsidiaries of the shares and debentures of their holding companies [8 Sch 15 (3)]   O   O   O   327

6.4.3.3 Particulars of the holding companies' proportion of revenue profits or losses [8 Sch 15 (4) (b) (c); 8 Sch 15 (5)]   O   O   O   328

6.4.3.4 Qualifications in audit reports on financial statements of subsidiaries or notes on financial statements which would properly have been the subject of a qualification, if they affect the holding company and are not covered by its financial statements [8 Sch 15 (4)]   O   O   O   329

6.4.3.5 If the information required under (iii), (iv) and (v) above cannot be obtained a statement to that effect [8 Sch 15 (4)]   O   O   O   330

Note: The information required under (iii), (iv) and (v) above may be omitted if Registrar of Companies permission is obtained and disclosed [8 Sch 15 (4)]

YES NO N/A

6.4.4 *Non–publication of the holding company's profit and loss account:*

6.4.4.1 A holding company need not publish a separate profit and loss account, if it publishes a consolidated profit and loss account complying with statutory requirements and showing how much of the consolidated profit or loss for the financial year is "dealt with" in the accounts of the company
[S143 (5)]

O   O   O   331

6.4.4.2 In such case the consolidated profit and loss account must show particulars of directors' emoluments [S143 (5)]

O   O   O   332

```
                            APPENDIX C
          CORPORATE DISCLOSURE MEASURING INSTRUMENT
                            FOR GREECE
```

SUMMARY OF MARK ALLOCATION[68]

	MARKS	
1. MAIN FINANCIAL STATEMENTS		
1.1. General Presentation	7	
1.2. Balance Sheet Disclosures	128	
1.3. Income Statement Disclosures	29	
1.4. Appropriation Disclosures	<u>17</u>	181
2. PROSARTIMA (NOTES)		
2.1. Preparation and Layout of Financial Statements: Departures from the Requirements of Law 2190/1920 in Order to Show a True Picture	16	
2.2. Valuation of Assets	41	
2.3. Fixed Assets and Formation Expenses	32	
2.4. Participations	16	
2.5. Inventories	6	
2.6. Share Capital	18	
2.7. Provisions and Liabilities	19	
2.8. Transitory Accounts	12	
2.9. Memorandum Accounts	9	
2.10. Guarantees and Assets Placed as Security	13	
2.11. Fees, Advances and Loans to Directors	8	
2.12. Income Statement	<u>39</u>	229
3. ADDITIONAL PROSARTIMA (NOTES) FOR GROUPS		
3.1. Companies Included in the Group Accounts	34	
3.2. Assets	5	
3.3. Liabilities and Provisions	15	
3.4. Results	18	
3.5. Departures from the Law	15	
3.6. Other Disclosures	<u>17</u>	<u>104</u>
		<u>514</u>

---

[68] Balance Sheet, Income Statement and Appropriation disclosures are based on the compulsory formats of the Greek General Accounting Plan. If a company does not exceed at least 2 of the following 3 criteria, it can prepare a "Condensed Balance Sheet" and a "Condensed Prosartima" (see article 42a, S6; article 43a, S2): (a) Balance Sheet total, GDR 500m; (b) Revenue, GDR 1bn; (c) Average number of employees, 50. Furthermore, the numbering method of the Plan has been maintained for this section of the scoring instrument. The measuring instrument has been validated by the international accounting firms of Coopers & Lybrand (Greece) and Deloitte & Touche (Greece).

APPENDIX C – continued

CORPORATE DEMOGRAPHIC DATA

COMPANY NAME: ....

RESEARCH CODE: ....

DISCLOSURE SCORE:

      (1)   ACTUAL: ....

      (2)   MAXIMUM: ....

      (3)   RELATIVE: ....

STRUCTURE RELATED VARIABLES:

      (1)   COMPANY SIZE:

            (i)   Total Sales: ....

            (ii)   Total Assets: ....

            (iii)   Market Capitalisation: ....

      (2)   OWNERSHIP DISTRIBUTION:

          Number of Shareholders: ....

      (3)   COMPANY AGE:

          Number of Years Since Date of Incorporation: ....

PERFORMANCE RELATED VARIABLES:

      (1)   PROFITABILITY:

            (i)   Profit Margin: ....

            (ii)   Rate of Return: ....

      (2)   LIQUIDITY:

          Current Ratio: ....

APPENDIX C – continued

MARKET RELATED VARIABLES:

(1)   INDUSTRY TYPE:

        (i)   Manufacturing: ....

        (ii)   Conglomerate: ....

        (iii)   Other: ....

(2)   LISTING STATUS:

        (i)   Main Market Listing: ....

        (ii)   Parallel Market Listing: ....

(3)   AUDITOR TYPE:

        (i)   SELE member: ....

        (ii)   Non SELE member: ....

PART 1 – MAIN FINANCIAL STATEMENTS

1.1 GENERAL PRESENTATION

		YES	NO	N/A	
1.1.1	Name of company	O	O	O	1
1.1.2	Country of incorporation	O	O	O	2
1.1.3	Balance sheet date	O	O	O	3
1.1.4	Period covered by financial statements	O	O	O	4
1.1.5	Nature of activities	O	O	O	5
1.1.6	Corresponding figures	O	O	O	6
1.1.7	Adoption of compulsory presentation formats	O	O	O	7

1.2 BALANCE SHEET DISCLOSURES

ASSETS

		YES	NO	N/A	
A	**Unpaid called–up capital**	O	O	O	8
B	**Formation Expenses**				
	1 Formation expenses	O	O	O	9
	2 Exchange differences on loans for the purchase of fixed assets	O	O	O	10
	3 Construction–period interest on loans	O	O	O	11
	4 Other	O	O	O	12
Γ	**Fixed Assets**				
	I Intangible assets				
	1 R&D costs	O	O	O	13
	2 Concessions, patents, rights	O	O	O	14
	3 Goodwill	O	O	O	15
	4 Payments on account	O	O	O	16
	5 Other	O	O	O	17
	6 Goodwill on acquisition of subsidiaries	O	O	O	18
	II Tangible assets				
	1 Land	O	O	O	19
	Less: Provision for diminution	O	O	O	20
	2 Mines, quarries, farms	O	O	O	21
	3 Buildings, structures	O	O	O	22
	4 Plant and machinery	O	O	O	23
	5 Means of transport	O	O	O	24
	6 Furniture and fixtures	O	O	O	25
	7 Assets under contruction and advances	O	O	O	26

	YES	NO	N/A	

III Investments and long–term receivables

	YES	NO	N/A	
1 Equity participation in related and affiliated companies	O	O	O	27
2 Equity participation in other companies	O	O	O	28
Less: Capital unpaid	O	O	O	29
Provisions for devaluation	O	O	O	30
3 Long–term claims on affiliated companies	O	O	O	31
4 Long–term claims on other related companies	O	O	O	32
5 Long–term notes receivables	O	O	O	33
Less: Deferred interest	O	O	O	34
6 Investments held as fixed assets	O	O	O	35
7 Other long–term receivables	O	O	O	36

Δ Current Assets

I Stocks

	YES	NO	N/A	
1 Goods for resale	O	O	O	37
2 Finished and semi–finished goods by–products, wastes	O	O	O	38
3 Work in progress	O	O	O	39
4 Raw materials, supplies, consumables	O	O	O	40
5 Advances for purchase of stock	O	O	O	41

II Receivables

	YES	NO	N/A	
1 Trade debtors	O	O	O	42
Less: Provision (general)	O	O	O	43
2 Notes receivable:				
- Portofolio	O	O	O	44
(Less: Notes discounted Notes transferred)	O	O	O	45
At banks for collection	O	O	O	46
At banks pledged	O	O	O	47
Less: Deferred interest	O	O	O	48
- Promissory notes	O	O	O	49
3 Notes receivables overdue	O	O	O	50
- Cheques receivables (postdated)	O	O	O	51
- Cheques overdue (redundant)	O	O	O	52
4 Share capital receivable	O	O	O	53
5 Receivables from affiliated companies	O	O	O	54
6 Receivables from other related companies	O	O	O	55
7 Receivables from members of management	O	O	O	56
8 Blocked deposits	O	O	O	57
9 Maturing portion of long–term receivables	O	O	O	58
10 Doubtful accounts receivables	O	O	O	59
Less: Provisions	O	O	O	60
11 Sundry debtors	O	O	O	61
12 Prepayments	O	O	O	62

III Securities

	YES	NO	N/A	
1 Shares	O	O	O	63
2 Bonds	O	O	O	64

	YES	NO	N/A	
3 Other securities	O	O	O	65
4 Own shares	O	O	O	66
Less: Capital unpaid	O	O	O	67
Provisions for write down	O	O	O	68

IV Cash in hand and at banks

	YES	NO	N/A	
1 Cash	O	O	O	69
2 Matured bonds coupons	O	O	O	70
3 Demand and time deposits	O	O	O	71

E   Transitory asset accounts

	YES	NO	N/A	
1 Deferred charges	O	O	O	72
2 Revenue receivable	O	O	O	73
3 Other	O	O	O	74

Memorandum Asset Accounts

	YES	NO	N/A	
1 Third parties' assets	O	O	O	75
2 Guarantees and collateral	O	O	O	76
3 Claims from bilateral agreements	O	O	O	77
4 Other	O	O	O	78

LIABILITIES

A   Owners' Equity

I   Subscribed capital

	YES	NO	N/A	
1 Capital paid up	O	O	O	79
2 Capital unpaid	O	O	O	80
3 Amortized capital	O	O	O	81

II   Share premium account

	YES	NO	N/A	
	O	O	O	82

III Revaluation differences, investment grants

	YES	NO	N/A	
1 Revaluation differences from participating interests and securities	O	O	O	83
2 Revaluation differences from other assets	O	O	O	84
3 Investment grants	O	O	O	85

IV Reserves

	YES	NO	N/A	
1 Legal reserves	O	O	O	86
2 Reserves provided for by the articles of association	O	O	O	87
3 Special–purpose reserves	O	O	O	88
4 Extraordinary reserves	O	O	O	89
5 Tax–exempt reserves	O	O	O	90
6 Reserves for own shares	O	O	O	91
Less: Goodwill on acquisition of subsidiaries	O	O	O	92
Depreciation of goodwill	O	O	O	93

V   Profit or loss carried forward

	YES	NO	N/A	
1 Profit carried forward	O	O	O	94
2 Loss carried forward	O	O	O	95
3 Prior years' loss	O	O	O	96

	YES	NO	N/A	
VI Funds for capital increase				
1 Owners' deposits	O	O	O	97
2 Dividends for capital increase	O	O	O	98
3 Reserves for capital increase	O	O	O	99
VII Exchange differences arising from the translation of foreign subsidiaries	O	O	O	100
VIII Discount on acquisition of subsidiaries	O	O	O	101
Proportion in undistributed profits of affiliated companies	O	O	O	102
Minority interests	O	O	O	103
Consolidation differences	O	O	O	104

B Provisions for Liabilities and Charges

	YES	NO	N/A	
1 Provisions for staff termination indemnities costs	O	O	O	105
2 Other provisions	O	O	O	106

Γ Liabilities

I Long–term liabilities

	YES	NO	N/A	
1 Bonds	O	O	O	107
2 Bank loans	O	O	O	108
3 Post–savings loans	O	O	O	109
4 Long–term liabilities to affiliated companies	O	O	O	110
5 Long–term liabilities to other related companies	O	O	O	111
6 Bank long–term loans on accounts receivable	O	O	O	112
7 Notes payable of long–term maturity	O	O	O	113
Less: Deferred interest	O	O	O	114
8 Other	O	O	O	115

II Short–term liabilities

	YES	NO	N/A	
1 Trade creditors	O	O	O	116
2 Notes payable and promissory notes	O	O	O	117
Cheques payable	O	O	O	118
Less: Deferred interest	O	O	O	119
3 Short–term bank loans	O	O	O	120
4 Customers' advances	O	O	O	121
5 Tax and duties payable	O	O	O	122
6 Social security contributions	O	O	O	123
7 Long–term liabilities payable in the following year	O	O	O	124
8 Liabilities to affiliated companies	O	O	O	125
9 Liabilities to other related companies	O	O	O	126
10 Dividends payable	O	O	O	127
11 Sundry creditors	O	O	O	128

Δ Transitory Liability Accounts

	YES	NO	N/A	
1 Deferred income	O	O	O	129
2 Expenses payable	O	O	O	130
3 Other	O	O	O	131

	YES	NO	N/A	
Memorandum Liability Accounts				
1 Beneficiaries of third parties' assets	O	O	O	132
2 Beneficiaries of guarantees	O	O	O	133
3 Commitments from bilateral agreements	O	O	O	134
4 Other	O	O	O	135

1.3 INCOME STATEMENT DISCLOSURES

I   *Operating income*

	YES	NO	N/A	
Annual turnover (sales)	O	O	O	136
Deduct: Cost of sales	O	O	O	137
Gross operating profit (loss)				
Other operating income	O	O	O	138
Standard cost variances	O	O	O	139
Total				
Deduct:				
1 Administrative expenses	O	O	O	140
2 R&D expenses	O	O	O	141
3 Selling expenses (and distribution)	O	O	O	142
4 Operating production overhead expenses not included in costing of products	O	O	O	143
5 Standard cost variances	O	O	O	144
Partial operating income				
Add:				
1 - Income from equity participations: Profit from participations in affiliated companies	O	O	O	145
2 Income from securities	O	O	O	146
3 Profit from the sale of participating interests and securities	O	O	O	147
4 Interest income and other income	O	O	O	148
Deduct:				
1 Value adjustments for equity participations and securities	O	O	O	149
2 Expenses and losses from equity participations and securities	O	O	O	150
3 Interest expenses and other charges	O	O	O	151
Total operating income				

II   Add:

Extraordinary income

	YES	NO	N/A	
1 Extraordinary and non–operating revenue	O	O	O	152
2 Extraordinary profits	O	O	O	153
3 Prior years' revenue	O	O	O	154
4 Reversal of prior years' provisions	O	O	O	155

	YES	NO	N/A	
Deduct:				
1 Extraordinary and non–operating expenses	O	O	O	156
2 Extraordinary losses	O	O	O	157
3 Prior years' expenses	O	O	O	158
4 Provisions for extraordinary charges (including provision for bad debts)	O	O	O	159

Total operating and extraordinary income

	YES	NO	N/A	
Deduct: Annual depreciation expense	O	O	O	160
Depreciation included in production cost	O	O	O	161
Depreciation of goodwill on acquisition of subsidiary	O	O	O	162
Exchange differences arising from the translation of subsidiaries' accounts	O	O	O	163

Net income (profit or loss) *before tax*

	YES	NO	N/A	
Minority Interests	O	O	O	164

1.4 APPROPRIATION DISCLOSURES

	YES	NO	N/A	
Net income	O	O	O	165
(+) or (-): Previous year's income/losses	O	O	O	166
(+) or (-): Tax credit (charge) on prior years' taxable income	O	O	O	167
(+) or (-): Reserves for distribution	O	O	O	168
Less: Income tax	O	O	O	169
Other taxes not included in operating costs	O	O	O	170

Profits for distribution *or* loss carried forward

Profits are distributed as follows:

	YES	NO	N/A	
1 Legal reserve	O	O	O	171
2 First dividend	O	O	O	172
3 Additional dividend	O	O	O	173
4 Reserves provided for by the articles of association	O	O	O	174
5 Special and extraordinary reserves	O	O	O	175
6 - Tax–exempt reserves	O	O	O	176
- Tax–free income reserves	O	O	O	177
- Special tax income reserves	O	O	O	178
- Reserves – income from construction companies	O	O	O	179
7 Emoluments of directors	O	O	O	180
8 Profit carried forward	O	O	O	181

PART 2 – PROSARTIMA (NOTES)

2.1 PREPARATION AND LAYOUT OF FINANCIAL STATEMENTS: DEPARTURES FROM THE REQUIREMENTS OF LAW 2190/1920 IN ORDER TO SHOW A TRUE PICTURE

		YES	NO	N/A	
2.1.1	**Article 42α, S3**				
	Departures from presentation rules in order to show with "absolute clarity" the true picture:				
	2.1.1.1 Description	O	O	O	182
	2.1.1.2 Reason for departure	O	O	O	183
	2.1.1.3 Impact on net worth	O	O	O	184
	2.1.1.4 Impact on financial and cash position	O	O	O	185
	2.1.1.5 Impact on profit/loss	O	O	O	186
2.1.2	**Article 42β, S1**				
	Departures from layout rules and format of the financial statements:				
	2.1.2.1 Description	O	O	O	187
	2.1.2.3 Reason for departure	O	O	O	188
2.1.3	**Article 42β, S2**				
	Recording of account items in a particular account rather than in other accounts which would have been equally suitable:				
	2.1.3.1 Description	O	O	O	189
	2.1.3.2 Analysis	O	O	O	190
2.1.4	**Article 42β, S3**				
	Adaptations in the layout and titles of accounts denoted by arabic numerals where the special nature of the business so requires:				
	2.1.4.1 Description	O	O	O	191
	2.1.4.2 Explanation	O	O	O	192
2.1.5	**Article 42β, S4**				
	Combination of account items denoted by arabic numerals due to immateriality or in order to ensure greater clarity:				
	2.1.5.1 Description	O	O	O	193
	2.1.5.2 Explanation	O	O	O	194

		YES	NO	N/A	

2.1.6 **Article 42β, S5**
Reclassification of prior year amounts to make them comparable with current year amounts:

		YES	NO	N/A	
2.1.6.1	Description	O	O	O	195
2.1.6.2	Explanation	O	O	O	196

2.1.7 **Article 43β, S2**
When financial statements are also presented in ECUs disclose the exchange rate between ECU and GRD.

		YES	NO	N/A	
		O	O	O	197

2.2 **VALUATION OF ASSETS**

2.2.1 **Article 43α, S1.α**
Methods of valuation, calculation of depreciation and provisions for devaluations:

			YES	NO	N/A	
2.2.1.1	Fixed assets					
	(i)	Valuation method	O	O	O	198
	(ii)	Revaluation	O	O	O	199
	(iii)	Depreciation method	O	O	O	200
	(iv)	Explanation of provisions for devaluations	O	O	O	201
2.2.1.2	Participations and securities in Societe Anonymes					
	(i)	Valuation method	O	O	O	202
	(ii)	Explanation of provisions for devaluations	O	O	O	203
2.2.1.3	Participations and securities in other legal entities					
	(i)	Valuation method	O	O	O	204
	(ii)	Explanation of provisions for devaluations	O	O	O	205
2.2.1.4	Government bonds					
	(i)	Valuation method	O	O	O	206
	(ii)	Explanation of provisions for devaluations	O	O	O	207
2.2.1.5	Stocks					
	(i)	Valuation method	O	O	O	208
	(ii)	Explanation of provisions for devaluations	O	O	O	209
2.2.1.6	Work in progress					
	(i)	Valuation method	O	O	O	210
	(ii)	Explanation of provisions for devaluations	O	O	O	211
2.2.1.7	Stock for own use	O	O	O	212
2.2.1.8	Scraps and by-products					
	(i)	Valuation method	O	O	O	213
	(ii)	Explanation of provisions for devaluations	O	O	O	214

2.2.1.9 Stock valuation methods eg FIFO, LIFO
etc

     (i)   Valuation method   O   O   O   215

     (iii) Explanation of provisions for
devaluations   O   O   O   216

2.2.2   **Article 43α, S1.α**
Basis of converting assets from foreign currency and treatment of related exchange differences:

	YES	NO	N/A	
2.2.2.1 Amounts	O	O	O	217
2.2.2.2 Basis of translation	O	O	O	218
2.2.2.3 Accounting treatment of exchange differences	O	O	O	219

2.2.3   **Article 43, S2**
Departures from normal valuation methods and principles:

	YES	NO	N/A	
2.2.3.1 Description	O	O	O	220
2.2.3.2 Reasons for departure	O	O	O	221
2.2.3.3 Impact on net wealth	O	O	O	222
2.2.3.4 Impact on cash and financial position	O	O	O	223
2.2.3.5 Impact on profit/loss	O	O	O	224

2.2.4   **Article 43, S7.β**
Changes in the method of calculation of the cost or construction cost of stocks or other current assets:

	YES	NO	N/A	
2.2.4.1 Description	O	O	O	225
2.2.4.2 Reasons for the change	O	O	O	226
2.2.4.3 Impact on profit/loss	O	O	O	227

2.2.5   **Article 43, S7.γ**
Any material difference between the valuation and the market value of stocks or any other class of current assets:

	YES	NO	N/A	
2.2.5.1 Stocks				
(i) Total difference	O	O	O	228
(ii) Analysis by category	O	O	O	229
2.2.5.2 Receivables				
(i) Total difference	O	O	O	230
(ii) Analysis by category	O	O	O	231
2.2.5.3 Securities				
(i) Total difference	O	O	O	232
(ii) Analysis by category	O	O	O	233
2.2.5.4 Cash				
(i) Total difference	O	O	O	234
(ii) Analysis by category	O	O	O	235

2.2.6   **Article 43, S9**
Fixed asset revaluations as a result of any special law:

	YES	NO	N/A	
2.2.6.1 Description	O	O	O	236
2.2.6.2 Reference to the special law	O	O	O	237
2.2.6.3 Analysis of revaluation account	O	O	O	238

2.3   **FIXED ASSETS AND FORMATION EXPENSES**

2.3.1   **Article 42, S8**
Movement of each class of fixed assets and capitalised/ formation expenses:

	YES	NO	N/A	
2.3.1.1 Purchase cost or construction cost brought forward	O	O	O	239
2.3.1.2 Additions and improvements during the year	O	O	O	240
2.3.1.3 Revaluations	O	O	O	241
2.3.1.4 Decreases and other transfers during the year	O	O	O	242
2.3.1.5 Cost as at the year end	O	O	O	243
2.3.1.6 Accumulated depreciation brought forward	O	O	O	244
2.3.1.7 Annual charge for depreciation	O	O	O	245
2.3.1.8 Corrections of prior periods depreciation charges	O	O	O	246
2.3.1.9 Other transfers	O	O	O	247
2.3.1.10 Accumulated depreciation as at the year end	O	O	O	248
2.3.1.11 Net book value as at the year end	O	O	O	249

2.3.2   **Article 42, S5.δ**
Additional depreciation based on special tax law (in the form of development incentives):

	YES	NO	N/A	
2.3.2.1 Analysis	O	O	O	250
2.3.2.2 Reference to the relevant tax law	O	O	O	251

2.3.3   **Article 43, S5.ε**
Provisions for decrease in the value of a tangible fixed asset:

	YES	NO	N/A	
2.3.3.1 Description	O	O	O	252
2.3.3.2 Amount	O	O	O	253

2.3.4   **Article 43, S3.ε**
Analysis and explanation of formation expenses for the year:

	YES	NO	N/A	
2.3.4.1 Explanations	O	O	O	254
2.3.4.2 Analysis by type	O	O	O	255

	YES	NO	N/A	

2.3.5 **Article 43, S3.γ**
Amounts and accounting treatment of exchange rate differences arising on loans or other credits incurred solely for the acquisition of fixed assets:

	YES	NO	N/A	
2.3.5.1 Total amount	O	O	O	256
2.3.5.2 Analysis	O	O	O	257
2.3.5.3 Accounting treatment	O	O	O	258

2.3.6 **Article 43, S4.α & β**
Analysis and explanation of intangible assets:

2.3.6.1 Research and development

	YES	NO	N/A	
(i) Total amount	O	O	O	259
(ii) Analysis	O	O	O	260
(iii) Explanation	O	O	O	261

2.3.6.2 Patents and trademarks

	YES	NO	N/A	
(i) Total amount	O	O	O	262
(ii) Analysis	O	O	O	263
(iii) Explanation	O	O	O	264

2.3.6.3 Goodwill

	YES	NO	N/A	
(i) Total amount	O	O	O	265
(ii) Analysis	O	O	O	266
(iii) Explanation	O	O	O	267

2.3.6.4 Other intangible assets

	YES	NO	N/A	
(i) Total amount	O	O	O	268
(ii) Analysis	O	O	O	269
(iii) Explanation	O	O	O	270

2.4 **PARTICIPATIONS**

2.4.1 **Article 43α, S1.β**
For each investment in the capital of another legal entity that exceeds 10% of the investee's share capital:

	YES	NO	N/A	
2.4.1.1 Name	O	O	O	271
2.4.1.2 Headquarters	O	O	O	272
2.4.1.3 Share capital	O	O	O	273
2.4.1.4 Participating interest	O	O	O	274
2.4.1.5 Acquisition cost	O	O	O	275
2.4.1.6 Result for latest period	O	O	O	276

2.4.2 **Article 43α, S1. β**
For each investment in the capital of another business in which the company has an unlimited liability:

	YES	NO	N/A	
2.4.2.1 Name	O	O	O	277
2.4.2.2 Headquarters	O	O	O	278
2.4.2.3 Share capital	O	O	O	279

	YES	NO	N/A	
2.4.2.4 Participating interest	O	O	O	280
2.4.2.5 Acquisition	O	O	O	281
2.4.2.6 Result for latest period	O	O	O	282
2.4.2.7 Nature of liability	O	O	O	283

2.4.3 Article 43α, S1.ιε
Consolidated financial statements in which the company's financial statements are/will be included:

2.4.3.1 Name of reporting entity	O	O	O	284
2.4.3.2 Headquarters	O	O	O	285
2.4.3.3 Place where the financial statements are made available	O	O	O	286

2.5 INVENTORIES

2.5.1 Article 43α, S1.ια
Departures from the valuation principles of article 43 made for tax saving purposes:

2.5.1.1 Description	O	O	O	287
2.5.1.2 Impact on profit/loss	O	O	O	288
2.5.1.3 Explanations relating to any resulting material future tax liabilities	O	O	O	289

2.5.2 Article 43α, S1.ι
Differences relating to decreases in the value of working capital items:

2.5.2.1 Amount	O	O	O	290
2.5.2.2 Reasons for differences	O	O	O	291
2.5.2.3 Related tax treatment	O	O	O	292

2.6 SHARE CAPITAL

2.6.1 Article 43α, S1.δ
For each class of share capital:

2.6.1.1 Number of shares	O	O	O	293
2.6.1.2 Nominal value of shares	O	O	O	294

2.6.2 Article 43α, S1.γ
For increases of share capital during the year:

2.6.2.1 Number of shares issued	O	O	O	295
2.6.2.2 Nominal value of shares issued	O	O	O	296
2.6.2.3 Issue price	O	O	O	297

	YES	NO	N/A

2.6.3 <u>Article 43α, S1ε & 42ε, S10</u>
For issues of instruments with special rights:

2.6.3.1 Preferred shares

(i) Number of shares	O	O	O	298
(ii) Nature of special rights	O	O	O	299

2.6.3.2 Convertible debentures:

(i) Number of debentures	O	O	O	300
(ii) Nature of special rights	O	O	O	301

2.6.3.3 Life–interest shares

(i) Number of shares	O	O	O	302
(ii) Nature of special rights	O	O	O	303

2.6.3.4 Incorporation titles

(I) Number of titles	O	O	O	304
(ii) Nature of special rights	O	O	O	305

2.6.4 <u>Article 43α, S1.ιστ</u>
For purchase of own shares during the period:

2.6.4.1 Reasons for purchase	O	O	O	306
2.6.4.2 Number of shares	O	O	O	307
2.6.4.3 Percentage of capital they represent	O	O	O	308
2.6.4.4 Nominal value of shares	O	O	O	309
2.6.4.5 Consideration for the shares	O	O	O	310

2.7 PROVISIONS AND LIABILITIES

2.7.1 <u>Article 42ε, S14.δ</u>
Analysis of other provisions account (if material)

2.7.1.1 Total amount	O	O	O	311
2.7.1.2 Analysis by type	O	O	O	312
2.7.1.3 Description	O	O	O	313

2.7.2 <u>Article 43α, S1.ζ</u>
Financial commitments and probable liabilities not disclosed under memorandum accounts:

2.7.2.1 Financial commitments	O	O	O	314
2.7.2.2 Guarantees	O	O	O	315
2.7.2.3 Other legal commitments	O	O	O	316
2.7.2.4 Other commercial commitments	O	O	O	317
2.7.2.5 Obligations for the payment of special monthly fees	O	O	O	318
2.7.2.6 Economic commitments to affiliated companies	O	O	O	319

2.7.3   **Article 43α, S1. ιβ**
Taxes payable or probable in respect of the current and past periods not disclosed under liabilities and provisions:

	YES	NO	N/A	
2.7.3.1 Description	O	O	O	320
2.7.3.2 Explanation	O	O	O	321
2.7.3.3 Analysis	O	O	O	322
2.7.3.4 State for which period the tax liability has been agreed with the tax authorities and for which it hasn't	O	O	O	323

2.7.4   **Article 43α, S1.στ**
Liabilities due after more than 5 years:

	YES	NO	N/A	
2.7.4.1 Total amount	O	O	O	324
2.7.4.2 Analysis on an item by item basis	O	O	O	325
2.7.4.3 Description	O	O	O	326

2.7.5   **Article 43α, S1.στ**
Liabilities secured with real estate guarantees:

	YES	NO	N/A	
2.7.5.1 Amounts	O	O	O	327
2.7.5.2 Description	O	O	O	328
2.7.5.3 Nature and extent of security given	O	O	O	329

2.8   TRANSITORY ACCOUNTS

2.8.1   **Article 42ε, S12**
Analysis of:

	YES	NO	N/A	
2.8.1.1 Prepaid expenses:				
(i) Total amount	O	O	O	330
(ii) Analysis	O	O	O	331
(iii) Description	O	O	O	332
2.8.1.2 Accrued Income:				
(i) Total amount	O	O	O	333
(ii) Analysis	O	O	O	334
(iii) Description	O	O	O	335
2.8.1.3 Deferred Income:				
(i) Total amount	O	O	O	336
(ii) Analysis	O	O	O	337
(iii) Description	O	O	O	338
2.8.1.4 Accrued Expenses:				
(i) Total amount	O	O	O	339
(ii) Analysis	O	O	O	340
(iii) Description	O	O	O	341

2.9   MEMORANDUM ACCOUNTS

2.9.1 Article 42ε, S11
Analysis of:

2.9.1.1 Third parties' assets
	YES	NO	N/A	
(i) Total amount	O	O	O	342
(ii) Analysis	O	O	O	343
(iii) Description	O	O	O	344

2.9.1.2 Mutually binding contracts
	YES	NO	N/A	
(i) Total amount	O	O	O	345
(ii) Analysis	O	O	O	346
(iii) Description	O	O	O	347

2.9.1.3 Guarantees and assets placed as security if not covered by disclosures in Note 10:
	YES	NO	N/A	
(i) Total amount	O	O	O	348
(ii) Analysis	O	O	O	349
(iii) Description	O	O	O	350

2.10 GUARANTEES AND ASSETS PLACED AS SECURITY

Article 42ε, S9
Analysis of:

2.10.1 Guarantees given by the company:
	YES	NO	N/A	
(i) Total amount	O	O	O	351
(ii) Analysis	O	O	O	352
(iii) Description	O	O	O	353
(iv) Nature and extent of security given	O	O	O	354
(v) Disclose separately amounts relating to affiliated companies	O	O	O	355

2.10.2 Real estate securities pledged by the company:
	YES	NO	N/A	
(i) Total amount	O	O	O	356
(ii) Analysis	O	O	O	357
(iii) Description	O	O	O	358
(iv) Nature and extent of security given	O	O	O	359
(v) Disclose separately amounts relating to affiliated companies	O	O	O	360

2.10.3 Real estate securities given to the company:
	YES	NO	N/A	
(i) Total amount	O	O	O	361
(ii) Analysis	O	O	O	362
(iii) Description	O	O	O	363

2.11 FEES, ADVANCES AND LOANS TO DIRECTORS

2.11.1 Article 43α, S1.ιγ
Fees payable to:

	YES	NO	N/A	
2.11.1.1 Directors	O	O	O	364
2.11.1.2 Other members of the management team	O	O	O	365

2.11.2 Article 43α, S1.ιγ
Liabilities created in respect of assistance to retiring:

2.11.2.1 Directors	O	O	O	366
2.11.2.2 Other members of the management team	O	O	O	367

NOTE: The above can be waived if it gives information about the idernity and remuneration of directors or managers.

2.11.3 Article 43α, S1.ιδ
2.11.3.1 Advances to:

(i) Directors	O	O	O	368
(ii) Other members of the management team	O	O	O	369

2.11.3.2 Loans to:

(i) Directors	O	O	O	370
(ii) Other members of the management team	O	O	O	371

2.12 INCOME STATEMENT

2.12.1 Article 43α, S1.η
Analysis of sales by:

2.12.1.1 Activity	O	O	O	372
2.12.1.2 Geographical area	O	O	O	373
2.12.1.3 In case of non–disclosure refer to the Minister's decision exempting the company from disclosing this information	O	O	O	374

2.12.2 Article 43α, S1.θ
The average number of employees by category and their related costs:

2.12.2.1 Average number	O	O	O	375
2.12.2.2 Analysis by category	O	O	O	376
2.12.2.3 Analysis of costs for each category				
(i) Salaries	O	O	O	377
(ii) Social security contributions	O	O	O	378
(iii) Other forms of assistance	O	O	O	379

	YES	NO	N/A

2.12.3 Article 42ε, S15.β
Amounts and nature of exceptional and extraordinary expenses and income:

2.12.3.1 Exceptional and extraordinary expenses

	YES	NO	N/A	
(i) Total amount	O	O	O	380
(ii) Analysis	O	O	O	381
(iii) Nature	O	O	O	382
(iv) Effect on tax charge of current year	O	O	O	383

2.12.3.2 Exceptional and extraordinary revenue

	YES	NO	N/A	
(i) Total amount	O	O	O	384
(ii) Analysis	O	O	O	385
(iii) Nature	O	O	O	386
(iv) Effect on tax charge of current year	O	O	O	387

2.12.3.3 Exceptional and extraordinary losses

	YES	NO	N/A	
(i) Total amount	O	O	O	388
(ii) Analysis	O	O	O	389
(iii) Nature	O	O	O	390
(iv) Effect on tax charge of current year	O	O	O	391

2.12.3.4 Exceptional and extraordinary profits

	YES	NO	N/A	
(i) Total amount	O	O	O	392
(ii) Analysis	O	O	O	393
(iii) Nature	O	O	O	394
(iv) Effect on tax charge of current year	O	O	O	395

2.12.3.5 Income related to prior periods

	YES	NO	N/A	
(i) Total amount	O	O	O	396
(ii) Analysis	O	O	O	397
(iii) Nature	O	O	O	398
(iv) Effect on tax charge of current year	O	O	O	399

2.12.3.6 Expenses relating to previous periods

	YES	NO	N/A	
(i) Total amount	O	O	O	400
(ii) Analysis	O	O	O	401
(iii) Nature	O	O	O	402
(iv) Effect on tax charge of current year	O	O	O	403

2.12.3.7 Reversal from prior years' provisions

	YES	NO	N/A	
(i) Total amount	O	O	O	404
(ii) Analysis	O	O	O	405
(iii) Nature	O	O	O	406
(iv) Effect on tax charge of current year	O	O	O	407

2.12.4 Article 43α, S1.ιζ
Any other information aiming at a more complete understanding of the financial statements:

	YES	NO	N/A	
2.12.4.1 Nature	O	O	O	408
2.12.4.2 Effect on financial statements	O	O	O	409

2.12.5 Article42α, S5
Financial statements signed by the Chairman (or Deputy Chairman), the Managing Director (or a Director appointed for that purpose) and the Chief Accountant   O   O   O   410

PART 3 – ADDITIONAL PROSARTIMA FOR GROUPS

3.1 COMPANIES INCLUDED IN THE GROUP ACCOUNTS

	YES	NO	N/A	

3.1.1 Article 107, S1β

Information about companies included in the consolidated accounts using the full consolidation method:

	YES	NO	N/A	
3.1.1.1 Name	O	O	O	411
3.1.1.2 Headquarters	O	O	O	412
3.1.1.3 Participating interest of the parent company	O	O	O	413
3.1.1.4 Participating interest of other companies (or of persons acting on their behalf) included in the consolidation	O	O	O	414
3.1.1.5 Reasons for consolidation	O	O	O	415

3.1.2 Article 107, S1δ

Information about companies included in the consolidated accounts using the equity method:

	YES	NO	N/A	
3.1.2.1 Name	O	O	O	416
3.1.2.2 Headquarters	O	O	O	417
3.1.2.3 Participating interest of the parent company	O	O	O	418
3.1.2.4 Participating interest of other companies included in the consolidation	O	O	O	419
3.1.2.5 Cost of participation	O	O	O	420
3.1.2.6 Share in net assets	O	O	O	421

3.1.3 Article 107, S1γ & 97

Information about companies excluded from consolidation or not equity accounted for, on the basis of immateriality:

	YES	NO	N/A	
3.1.3.1 Name	O	O	O	422
3.1.3.2 Headquarters	O	O	O	423
3.1.3.3 Participating interest of parent company	O	O	O	424
3.1.3.4 Participating interest of other companies included in the consolidation	O	O	O	425

3.1.4 Article 107, S1γ & 98

Information about companies excluded from consolidation on the basis of dissimilar activities:

	YES	NO	N/A	
3.1.4.1 Name	O	O	O	426
3.1.4.2 Headquarters	O	O	O	427
3.1.4.3 Participating interest of the parent company	O	O	O	428
3.1.4.4 Participating interest of other companies included in the consolidation	O	O	O	429

375

3.1.5 **Article 107, S1ε**

Information about those companies in which the companies included and excluded from consolidation, own directly or indirectly more than 10% of their share capital (this information can be waived on the basis of immateriality; information required under (d) and (e) can be waived under special circumstances):

	YES	NO	N/A	
3.1.5.1 Name	O	O	O	430
3.1.5.2 Headquarters	O	O	O	431
3.1.5.3 Participating interest	O	O	O	432
3.1.5.4 Total amount of share capital	O	O	O	433
3.1.5.5 Profit or loss for latest financial year	O	O	O	434

3.1.6 **Article 104, S7**

The year end of all companies included in the group accounts:

	YES	NO	N/A	
3.1.6.1 The actual year end	O	O	O	435
3.1.6.2 If the year end is not coterminous with those of the group balance sheet:				
(i) Explain reason	O	O	O	436
(ii) Disclose (if not taken into account when preparing the consolidated accounts) the important events from year end to date of consolidated balance sheet relating to:				
- Net wealth	O	O	O	437
- Cash and financial position	O	O	O	438
- Profit/loss for period	O	O	O	439

3.1.7 **Article 104, S9**

If there has been a change in the composition of the group during the period then relevant information , aiming in making the financial statements comparable, should be disclosed:

	YES	NO	N/A	
3.1.7.1 Name of company	O	O	O	440
3.1.7.2 Nature of operations	O	O	O	441
3.1.7.3 Description of impact on:				
(i) Net wealth	O	O	O	442
(ii) Cash and financial position	O	O	O	443
(iii) Profit/loss for period	O	O	O	444

3.2 **ASSETS**

3.2.1 **Article 107, S1α**

Valuation of assets included in the consolidation:

	YES	NO	N/A	
3.2.1.1 Methods of revaluation	O	O	O	445
3.2.1.2 Method of calculating depreciation and provisions	O	O	O	446

	YES	NO	N/A	
3.2.1.3 Method of translating assets denominated in foreign currency	O	O	O	447

3.2.2 Article 105, S3

Normally assets and liabilities valued using different methods from those used for the assets and liabilities of the group must be revalued using the latter methods. In exceptional cases, where their inclusion using the original methods will not show the "true picture" of the group, a departure from the normal rule is allowed provided it is:

	YES	NO	N/A	
3.2.2.1 Described	O	O	O	448
3.2.2.2 Justified	O	O	O	449

3.3 LIABILITIES AND PROVISIONS

3.3.1 Article 107, S1στ

3.3.1.1 Liabilities falling due after more than 5 years:

	YES	NO	N/A	
(i) Total amount	O	O	O	450
(ii) Analysis	O	O	O	451

3.3.1.2 If any of the above is covered with real–estate security also disclose:

	YES	NO	N/A	
(i) Type of security	O	O	O	452
(ii) Nature of security	O	O	O	453
(iii) Amount	O	O	O	454

3.3.2 Article 107, S1ζ

Liabilities undertaken but not included in the balance sheet:

	YES	NO	N/A	
3.3.2.1 Total amount	O	O	O	455
3.3.2.2 Analysis	O	O	O	456
3.3.2.3 Description	O	O	O	457
3.3.2.4 Disclose separately				
(i) Pensions due	O	O	O	458
(ii) Amounts due to affiliated companies	O	O	O	459

3.3.3 Article 107, S1ıα

Probable taxes due and taxes relating to previous years not accrued:

	YES	NO	N/A	
3.3.3.1 Description of contingency	O	O	O	460
3.3.3.2 Estimate of financial effect	O	O	O	461
3.3.3.3 Tax audit certification details	O	O	O	462

3.3.4 Article 104, S7

Significant post balance sheet events:

	YES	NO	N/A	
3.3.4.1 Nature	O	O	O	463
3.3.4.2 Amounts involved	O	O	O	464

YES NO N/A

3.4   RESULTS

3.4.1   Article 107, S1η
Group turnover analysed by distinguishable:

	YES	NO	N/A	
3.4.1.1 Activity	O	O	O	465
3.4.1.2 Geographical area	O	O	O	466

3.4.2   Article 107, S1θ
Group average number of employees and related costs:

	YES	NO	N/A	
3.4.2.1 Average number	O	O	O	467
3.4.2.2 Analysis by category	O	O	O	468
3.4.2.3 Staff costs (if not separately disclosed on the face of the Income Statement)	O	O	O	469

3.4.3   Article 105, S5
In case the values of some assets have been amended solely for tax purposes (eg accelerated depreciation, special provisions, etc) these should be included in the consolidation before those amendments. They can, however, be included at their amended values if the company discloses:

	YES	NO	N/A	
3.4.3.1 The amount	O	O	O	470
3.4.3.2 The purpose	O	O	O	471
3.4.3.3 The justification	O	O	O	472

3.4.4   Article 107, S1ιβ
Fees and other remuneration paid to the directors or managers of the parent company, in respect of duties undertaken for any group company:

	YES	NO	N/A	
3.4.4.1 Fees				
(i) Total amount	O	O	O	473
(ii) Analysis by category	O	O	O	474
3.4.4.2 Obligations undertaken in respect of pensions to retiring members				
(i) Total amount	O	O	O	475
(ii) Analysis by category	O	O	O	476

3.4.5   Article 107, S1ιγ
Advances and loans to directors and managers of the parent company, either by the parent or any of its subsidiaries, should be analysed by category as follows:

	YES	NO	N/A	
3.4.5.1 Amounts involved	O	O	O	477
3.4.5.2 Analysis by category	O	O	O	478
3.4.5.3 Interest rate	O	O	O	479
3.4.5.4 Terms	O	O	O	480

	YES	NO	N/A	
3.4.5.5 Amounts repaid	O	O	O	481
3.4.5.6 Any other guarantees undertaken on behalf of the above persons	O	O	O	482

3.5 DEPARTURES FROM THE LAW

3.5.1 Article 100, S5

Any departures from articles 101 to 107 (S1 and S2) in order to show with "absolute clarity" the true picture:

	YES	NO	N/A	
3.5.1.1 Description	O	O	O	483
3.5.1.2 Explanation	O	O	O	484
3.5.1.3 Effect on net wealth	O	O	O	485
3.5.1.4 Effect on cash and financial position	O	O	O	486
3.5.1.5 Effect on profit/loss	O	O	O	487

3.5.2 Article 104, S4

*3.5.2.1 Departures from article 104 (S3y) relating to the cancellation of intercompany **profits/losses** are allowed only when they were entered into in the normal course of business and their cancellation involves disproportionate expense. In this case disclose:*

	YES	NO	N/A	
(i) Description	O	O	O	488
(ii) Effect on net wealth	O	O	O	489
(iii) Effect on cash and financial position	O	O	O	490
(iv) Effect on group results	O	O	O	491

*3.5.2.2 Departures from article 104 (S3) relating to the cancellation of intercompany **balances, revenues, costs, profits and losses** are allowed if they involve immaterial amounts. In this case disclose:*

	YES	NO	N/A	
(i) Description	O	O	O	492
(ii) Effect on net wealth	O	O	O	493
(iii) Effect on cash and financial position	O	O	O	494
(iv) Effect on group results	O	O	O	495

3.5.3 Article 107, S1y

Other information required by special provisions of the law deemed necessary to enhance the understanding of the financial statements of the companies consolidated or equity accounted for:

	YES	NO	N/A	
3.5.3.1 Nature	O	O	O	496
3.5.3.2 Effect on financial statements	O	O	O	497

3.6   OTHER DISCLOSURES

3.6.1   Article 103, S4
Differences on consolidation:

	YES	NO	N/A	
3.6.1.1 Comment on the difference arising from each participation	O	O	O	498
3.6.1.2 Comment on the treatment of each difference	O	O	O	499

3.6.1.3 Movement

	YES	NO	N/A	
(i) Original difference	O	O	O	500
(ii) Accumulated amounts written off at the start of the period	O	O	O	501
(iii) Changes during the year	O	O	O	502
(iv) Balance at year end	O	O	O	503

3.6.2   Article 103, S4 and S2
Information about any fair value adjustments made to the consideration given and the net assets acquired as at the date of the acquisition:

	YES	NO	N/A	
3.6.2.1 Amounts	O	O	O	504
3.6.2.2 Analysis	O	O	O	505
3.6.2.3 Description	O	O	O	506

3.6.3   Article 104, S2
The consolidation methods can only be changed in exceptional cases subject to adequate disclosure of:

	YES	NO	N/A	
3.6.3.1 Reason for the change	O	O	O	507
3.6.3.2 Impact on net worth	O	O	O	508
3.6.3.3 Impact on cash and financial position	O	O	O	509
3.6.3.4 Impact on group results	O	O	O	510

3.6.4   Article 106, S2
If the difference between the accounting value of an investment in a related company and the value of the group participation in its share capital is not disclosed on the face of the balance sheet, then disclose:

	YES	NO	N/A	
3.6.4.1 The amount of the difference	O	O	O	511
3.6.4.2 In case the participation has been revalued by virtue of article 43 this should also be disclosed	O	O	O	512

3.6.5   Article 106, S3
In case the assets or liabilities of a related company have been revalued using methods different from those used in the consolidation and these valuations have not been amended this should be disclosed

	YES	NO	N/A	
	O	O	O	513

3.6.6 <u>**Article 109**</u>
Group financial statements signed by one or more directors as well as by the officer responsible for their preparation   O   O   O   514

APPENDIX D
SUMMARY OF SELECTED CORPORATE DISCLOSURE STUDIES

I. STRUCTURE RELATED CHARACTERISTICS

NO	COUNTRY	TYPE OF DISCLO-SURE	AUTHOR (YEAR)	SIZE						GEARING/LEVERAGE			OWNERSHIP DISTRIBUTION			ASSETS IN PLACE
				ASSETS	SALES	CAPITAL EMPLOYED (S/HS' FUNDS)	MARKET CAPITA-LISATION	EQUITY + DEBT	NUMBER OF S/HS	DEBT+ TOTAL ASSETS	DEBT+ EQUITY	TOTAL DEBT	NUMBER OF S/HS	% OF SHARES HELD BY INSIDERS	% OF SHARES HELD BY PUBLIC	N.B.V. ASSETS + TOTAL ASSETS
1	U S	Aggregate	Cerf (1961)	✓									✓			
2		Aggregate	Singhvi (1967)	✓									✓			
3		Aggregate	Singhvi & Desai (1971)	X									X			
4		Aggregate	Buzby (1972)	←												
5.		Aggregate	Stagna (1976)		·											
6	INDIA	Aggregate	Singhvi (1967)	✓									X			
7.	CANADA	Aggregate	Belkaoui & Kahl (1978)	←	←											
8	U.K., FRANCE, SWEDEN	Voluntary	Spero (1979)	X												
9.	U.K.	Voluntary	Firth (1979)	←		←										
10.	NEW ZEALAND	Voluntary	McNally, Eng & Hasseldine (1982)	←												
11		Voluntary	Hossain, Perera & Rahman (1995)	←												
12.	MEXICO	Voluntary	Chow & Wong Boren (1987)					✓		X						X
13	NIGERIA	Aggregate & Mandatory	Wallace (1987)	✓	X								X			

I. STRUCTURE RELATED CHARACTERISTICS

NO	COUNTRY	TYPE OF DISCLOSURE	AUTHOR (YEAR)	SIZE						GEARING/ LEVERAGE			OWNERSHIP DISTRIBUTION			ASSETS IN PLACE
				ASSETS	SALES	CAPITAL EMPLOYED (S/HS' FUNDS)	MARKET CAPITA-LISATION	EQUITY + DEBT	NUMBER OF S/HS	DEBT+ TOTAL ASSETS	DEBT+ EQUITY	TOTAL DEBT	NUMBER OF S/HS	% OF SHARES HELD BY INSIDERS	% OF SHARES HELD BY PUBLIC	N.B.V. ASSETS + TOTAL ASSETS
14	SWEDEN	Aggregate, Voluntary & Social	Cooke (1989)	✓	✓				✓							
15	HONG KONG	Mandatory	Tai, Au Yeung, Kwok & Leu (1990)			↑										
16	HONG KONG	Mandatory	Wallace & Naser (1995)	✓	X		X				X				X	
17	JAPAN	Voluntary	Cooke (1991)	✓	✓				✓							
18		Aggregate, Mandatory & Voluntary	Cooke (1992)	✓		✓										
19	MALAYSIA	Voluntary	Hossain, Tan & Adams (1994)				✓				X			7		X
20.	BANGLA-DESH	Mandatory	Ahmed & Nicholls (1994)	X	X							X				
21	SPAIN	Mandatory	Wallace, Naser & Mora (1994)	✓	✓						X					
22		Aggregate	Inhausti (1997)	✓	X											
23	ZIMBA-BWE	Mandatory	Owusu-Ansah (1999)	✓			✓							✓		
24	JORDAN	Aggregate	Khasharmeh (1995)	X	X					X					✓	
25	SWITZE-RLAND	Voluntary	Raffournier (1995)	X	✓					X					X	X

II. PERFORMANCE RELATED CHARACTERISTICS

				PROFITABILITY							DIVIDENDS			LIQUIDITY
NO	COUNTRY	TYPE OF DISCLOSURE	AUTHOR (YEAR)	NET INCOME	NET PROFIT + SALES	E.B.T. SALES	NET PROFIT + NET WORTH (CAPITAL EMPLOYED)	NET PROFIT + TOTAL ASSETS	E.B.T. + EQUITY AT START OF YEAR	NET INCOME / EARNINGS + EQUITY	DIVIDEND PAYOUT	DIVIDEND YIELD	DIVIDENDS PAID	CURRENT ASSETS + CURRENT LIABILITIES
1	U.S.	Aggregate	Cerf (1961)				✓							
2		Aggregate	Singhvi (1967)		✓		✓							X
3		Aggregate	Singhvi & Desai (1971)		X		X							
4	INDIA	Aggregate	Singhvi (1967)		✓		✓							
5	CANADA	Aggregate	Belkaoui & Kahl (1978)					-						-
6.	U.S. FRANCE SWEDEN	Voluntary	Spero (1979)					X³						
7	NEW ZEALAND	Voluntary	McNally, Eng & Hasseldine (1982)					-						
8	NIGERIA	Aggregate & Mandatory	Wallace (1987)				X							
9	HONG KONG	Mandatory	Wallace & Naser (1995)			?			X					X
10	SPAIN	Mandatory	Wallace, Naser, Mora (1994)			X			X					?
11.		Aggregate	Inbausti (1997)					X⁴		X	X			
12	ZIMBABWE	Mandatory	Owusu Ansah (1999)											
13	JORDAN	Aggregate	Khasharmeh (1955)				X							X
14	SWITZE-RLAND	Voluntary	Raffournier (1995)				X							

III. MARKET RELATED CHARACTERISTICS

NO	COUNTRY	TYPE OF DISCLOSURE	AUTHOR (YEAR)	AUDITOR TYPE	DOMESTIC LISTING STATUS	MULTIPLE/ FOREIGN LISTING	COMPETITION FOR FUNDS	QUALIFICATIONS OF P.A.O.	INDUSTRY/ BUSINESS TYPE	TYPE OF MGT	EXPORTS + SALES	FOREIGN PARENT	NO OF SUBSIDIARIES	FOREIGN REGISTRATION	CAPITAL NEED
1	U S	Aggregate	Cerf (1961)		↑										
2.		Aggregate	Singhvi (1967)	✓	✓										
3		Aggregate	Singhvi & Desai (1971)	X	✓						X				
4.		Aggregate	Buzby (1972)		·										
5.		Aggregate	Stagna (1976)						↑						
6.	INDIA	Aggregate	Singhvi (1967)	X						✓	X				
7	CANADA	Aggregate	Belkaoui & Kahl (1978)						↑						
8		Aggregate	Americ & Maiocco (1981)	·		·			↑		X				
9.	U.K., FRANCE, SWEDEN	Voluntary	Spero (1979)												✓
10	U K	Voluntary	Firth (1979)	·	↑										
11		Voluntary	Firth (1980)				↑								
12		Voluntary	Firth (1984)												
13	NEW ZEALAND	Voluntary	McNally, Eng & Hasseldine (1982)	·					·						
14		Voluntary	Hossain, Perera & Rahman (1995)	·		↑									

APPENDIX D – continued

III. MARKET RELATED CHARACTERISTICS

NO	COUNTRY	TYPE OF DISCLO-SURE	AUTHOR (YEAR)	AUDIIOR TYPE	DOMESTIC LISTING STATUS	MULTIPLE/ FOREIGN LISTING	COMPETI-TION FOR FUNDS	QUALIFICA-TIONS OF P.A.O.	INDI STRY/ BUSINESS TYPE	TYPE OF MGT	EXPORTS + SALES	FOREIGN PARENT	NO OF SUBSI-DIARIES	FOREIGN REGISTRA-TION	CAPITAL NEED
15.	NIGERIA	Aggregate & Mandatory	Wallace (1987)						✓	✓		X	X		
16.	SWEDEN	Aggregate, Voluntary & Social	Cooke (1989)			✓			-						
17.	HONG KONG	Mandatory	Tau, Au–Yeung, Kwok & Law (1990)	-					✓					X	
18.		Mandatory	Wallace & Naser (1995)	7					✓						
19.		Voluntary	Cooke (1991)			✓			✓						
20.		Aggregate, Mandatory & Voluntary	Cooke (1992)			✓									
21		Aggregate, Mandatory & Voluntary	Cooke (1993)			←									
22	MALAYSIA	Voluntary	Hossain, Tan & Adams (1994)	X		✓									
23	BANGLA-DESH	Mandatory	Ahmed & Nicholls (1994)	✓				✓				✓			
24	SPAIN	Mandatory	Wallace, Naser & Mora (1994)	X	✓				X						
25		Aggregate	Inhausti (1997)	✓		✓			X						
26	ZIMBABWE	Mandatory	Owusu-Ansah (1999)	X					X			✓			
27	JORDAN	Aggregate	Khasharmeh (1995)						✓						
28	SWITZE-RLAND	Voluntary	Raffournier (1995)	X					X		✓				

NOTES:

1 = Supported for aggregate disclosure

2 = A composite size variable was used; total assets and shareholders' funds were the most highly correlated with the composite size variable

3 = Different measures were used depending on the tax regime in each country; rate of return was positively related to voluntary disclosure in France only

4 = Operating, instead of net income, was used

5 = Alternate measures were used to represent this variable; partially supported for all 3 countries

6 = Supported for small but not for large companies

7 = Supported for mandatory disclosure

8 = Supported for aggregate and voluntary disclosure

KEY:

✓ = significant positive relationship was reported using multivariate analyses

7 = significant negative relationship was reported using multivariate analyses

X = not supported using multivariate analyses

← = significant positive relationship was reported using univariate analyses

→ = significant negative relationship was reporting using univariate analyses

- = not supported using univariate analyses

ABBREVIATIONS:

NO = Number

S/HS = Shareholders

N.B.V. = Net Book Value

E.B.T. = Earnings Before Tax

P.A.O. = Principal Accounting Officer

P/E = Price Earnings Ratio

387

CYPRIOT COMPANIES

1. Agros Development Co "Proodos"
2. Amathus Navigation Co Ltd
3. Astarti Development Co Ltd
4. Avacom Computer Services Ltd
5. C.C.C. Holdings & Investment Ltd
6. C.C.C. Tourist Enterprises Ltd
7. Claridge Investments Ltd
8. Covotsos Enterprises Ltd
9. Cyprus Airways Ltd
10. Cyprus Forest Industries Ltd
11. Cyprus Sulphur and Copper Ltd
12. Cyprus Trading Corporation Ltd
13. Dome Investments Ltd
14. Drousia Heights Hotel Co Ltd
15. Edisson Electrical Contractors Suppliers Ltd
16. Efremico Stockbrokers Ltd
17. Ekto Ltd
18. Elma Properties and Investments Ltd
19. Emetkal Aluminium Ltd
20. Empal Aluminium (Nicosia) Ltd
21. Euroinvestment & Finance Ltd
22. EXE- Excellent Managed Fund Ltd
23. F.W. Woolworth & Co (Cyprus) Ltd
24. Gypsum and Plasterboard Company Ltd
25. Hellenic Mining Co Ltd
26. K & G Complex Ltd
27. Keo Ltd
28. Kermia Ltd
29. Lanitis Bros Ltd
30. Ledra Palace Hotels Ltd
31. Lemeco Silvex Industries Ltd
32. Leptos Calypso Hotels Ltd
33. Loel Ltd
34. Lordos Hotels (Holdings)Ltd
35. Metohiko Pharmakio SEK-Lefkosias Ltd
36. Nicosia Buses Ltd
37. Olympus Wineries Ltd
38. Pancyprian Company of Bakers Ltd
39. Pancyprian Finance Corporation Ltd
40. People's Coffee Grinding Co Ltd
41. Pexek Ltd
42. Philoktimatiki Ltd
43. Sigma Radio TV Ltd
44. The Cyprus Cement Company Ltd
45. The Cyprus Phassouri Plantations Co Ltd
46. The Cyprus P'pes Industries Ltd
47. The Cyprus Tourism Development Company Ltd
48. Vass liko Cement Works Ltd
49. Venus Rock Estates Ltd
50. Zako Ltd

GREEK COMPANIES

1. A. Kalpinis N. Simos Steel Service Center
2. A.B. Vassilopoulos S.A.
3. A.G. Petzetakis S.A.
4. AEGEK S.A.
5. Alcar Trans Com & Tour S.A.
6. Alcatel Cable Hellas S.A.
7. Allatini Industrial and Commercial Co S.A.
8. ALTE Technical Co S.A.
9. Aluminum of Greece S.A.
10. Alysida S.A.
11. Athens Medical Center S.A.
12. Athens Medical Clinic of Palaio Faliro S.A.
13. Athinea S.A.
14. Attica Enterprises S.A.
15. Balkan Exports S.A.
16. C.A. Papaellinas Group S.A.
17. Chipita International S.A.
18. Delta Dairy S.A.
19. Demetriades Fabrics S.A.
20. Elve Endymaton S.A.
21. Erlikon S.A.
22. Esha S.A.
23. Eskimo S.A.
24. Etem Light Metals Industry S.A.
25. Flexopack S.A.
26. G. Klaoudatos S.A.
27. Gnomon Construction Co S.A.
28. Goodys S.A.
29. H. Bernoubi and Son S.A.
30. Halyps Cement Co S.A.
31. Hellas Can Packaging Manufacturers S.A.
32. Hellenic Bottling Co S.A.
33. Hellenic Cables S.A.
34. Heracles General Cement Co S.A.
35. Hermes S.A.
36. Hippotour S.A.
37. Inform P. Lykos S.A.
38. Intracom S.A.
39. Intrasoft S.A.
40. Jacobs Suchard Pavlides S.A.
41. K. Doudos S.A.
42. Klonatex I.C.S.T. & T.C.A. S.A.
43. Kreka S.A.
44. Lavipharm S.A.
45. Macedonian Plastics S.A.
46. Macedonian Spinning Mills S.A.
47. Marine Co of Lesvos S.A.
48. Metalloplastiki Agriniou S.A.
49. Mytilineoas Holdings S.A.
50. Naoussa Spinning Mills S.A.
51. Nikas S.A.
52. Nirefs S.A.

53. Oinerga S.A.
54. P.D. Papoutsanis S.A.
55. Papastratos Cigarette Manufacturing Co S.A.
56. Pipeworks L. Tsirakian Profils S.A.
57. Radio A. Korasides Commercial Enterprises S.A.
58. Remek Pharmaceutical Cosmetics S.A.
59. S.P. Tasoglou S.A.
60. Selonda Aquaculture S.A.
61. Shelman S.A.
62. Sportsman S.A.
63. St. Georges Mills S.A.
64. Strintzis Lines S.A.
65. Technical Olympics S.A.
66. Technodomi M Travlos S.A.
67. Themeliodomi S.A.
68. Titan Cement Co
69. Viokarpet S.A.
70. Vioter S.A.
71. VIS Container Manufacturing Co S.A.
72. Xylemporia S.A.
73. Yalco S.D Constandinou & Son S.A.
74. Zampas S.A.

BIBLIOGRAPHY

Abd–Elsalam, O.H. (1999). The introduction and application of international accounting standards to accounting disclosure regulations of a capital market in a developing country: the case of Egypt. PhD, Heriot–Watt University, Edinburg, United Kingdom.

Abu–Nassar, M. (1993). The development of financial reporting in Jordan: A survey of prepares' and users' attitudes and reporting practices. PhD, University of Kent at Canterbury, Canterbury, United Kingdom.

Abu–Nassar, M. & Rutherford, B.A. (1994). The extent of disclosure in external financial reports and company characteristics: A case study of the Amman financial market. Unpublished paper, Eliot College, The University of Canterbury, Kent.

Abu–Nassar, M. & Rutherford, B.A. (1995). 'Preparers' attitudes to financial reporting in less developed countries with moderately sophisticated capital markets: the case of Jordan', The International Journal of Accounting, 30, p.129–130.

Abu–Nassar, M. & Rutherford, B.A. (1996). 'External users of financial reports in less developed countries: the case of Jordan', British Accounting Review, 28, p.73–87.

Accounting Standards Board (ASB) (1996). Accounting standards 1996/97. London: The Institute of Chartered Accountants in England and Wales.

Adhikari, A. & Tondkar, R.H. (1992). 'Environmental factors influencing accounting disclosure requirements of global stock exchanges', Journal of International Financial Management and Accounting, 4, (2), p.75–105.

Ahmed, K. & Nicholls, D. (1994). 'The impact of non–financial company characteristics on mandatory disclosure compliance in developing countries: The case of Bangladesh', The International Journal of Accounting, 29, (1), p.62–77.

Ahmed, K. & Courtis J.K. (1999). 'Associations between corporate characteristics and disclosure levels in annual reports: A meta–analysis', British Accounting Review, 31, p.35–61.

Akerlof, G.A. (1970). 'The market for "lemons": Quality uncertainty and the market mechanisms', Quarterly Journal of Economics, 84, August, p.488–500.

Alexander, D. & Archer, S. (1995). European accounting guide. (2nd ed.) Orlando: Harcourt Brace & Company.

Alford, A., Jordan, J., Leftwich, R. & Zmijewski, M. (1993). 'The relative informativeness of accounting disclosures in different countries, Journal of Accounting Research, 31, (Supplement), p.183–223.

Americana (1979a). 'Cyprus', in Encyclopedia Americana. Danbury, Connecticut: Volume 13.

Americana (1979b). 'Greece', in Encyclopedia Americana. Danbury, Connecticut: Volume 13.

Amernic, J. & Maiocco, M. (1981). 'Improvements in disclosure by Canadian public companies: An empirical assessment', Cost and Management, November–December, p.16–20.

Anderson, R.A., Sweeney, D.J. & Williams, T.A. (1990). Statistics for business and economics. New York: West.

Antoniou, A. (1996). 'Cyprus's official stock exchange', Accountancy Cyprus, 43, June, p.52–53.

Athens Stock Exchange (ASE) (1996). Yearbook of the Athens stock exchange. Athens: Athens Stock Exchange.

ASE (1997). Athens Stock Exchange: Fact book 1996. Athens: Athens Stock Exchange.

ASE (1998). Athens Stock Exchange: Fact Book 1997. Athens: Athens Stock Exchange.

Baker, H K., Chenhall, R.H., Has em, J.A. & Juchau, R.H. (1977). 'Disclosure of material information: A cross–national comparison', The International Journal of Accounting, 13, (1), Fall, p.1–16.

Ball, R. & Brown, P. (1968). 'An empirical investigation of accounting income numbers', Journal of Accounting Research, Autumn, p.159–178.

Ball, R. & Foster, G. (1982). 'Corporate financial reporting: A methodological review of empirical research', Journal of Accounting Research, 20, (Supplement), p.161–234.

Ballas, A.A. (1994). 'Accounting in Greece', European Accounting Review, 3, (1), p.107–121.

Ballas, A.A. (1998). 'The creation of the auditing profession in Greece', Accounting, Organizations and Society, 23, (8), p.715–736.

Barrett, M.E. (1976). 'Financial reporting practices: Disclosure and comprehensiveness in an international setting', Journal of Accounting Research, 14, (1), Spring, p.10–26.

Barrett, M.E. (1977). 'The extent of disclosure in annual reports of large companies in seven countries', The International Journal of Accounting, 12, (2), Spring, p.1–25.

Bartlett, J. & Kaplan, J. (1992). Familiar quotations. (16th ed.) Boston: Little, Brown and Company.

Beams, F.A. (1965). 'Implications of pragmatism and empiricism in accounting thought', Accounting Review, April, p.382–8.

Beaty, R.P. (1989). 'Auditor reputation and the pricing of the initial public offerings', Accounting Review, 64, (4), p.693–709.

Beaver, W.H. (1968). 'The information content of annual earnings announcements', Journal of Accounting Research, Empirical Research in Accounting: Selected Studies, p.67–92.

Beaver, W.H. (1981). 'Market efficiency', Accounting Review, 56, (1), January, p.23–37.

Beaver, W.H. (1989). Financial reporting: An accounting revolution. (2nd ed.) Englewood Cliffs, New Jersey: Prentice Hall.

Bedford, N.M. (1973). Extensions in accounting disclosure. Englewood Cliffs, New Jersey: Prentice Hall.

Belkaoui, A. (1983). 'Economic, political, and civil indicators and reporting and disclosure adequacy: Empirical investigation', Journal of Accounting and Public Policy, 2, (3), Fall, p.207–219.

Belkaoui, A. (1994). Accounting theory. (3rd ed.) London: Dryden Press.

Belkaoui, A. & Kahl, A. (1977). 'What Canadian bank financial statements don't tell', CA Magazine, June, p.32–35.

Belkaoui, A. & Kahl, A. (1978). Corporate financial disclosure in Canada, Research Monograph No. 1 of the Canadian Certified General Accountants' Association, Vancouver, Canada.

Belkaoui, A., Kahl, A. & Peyvard, J. (1977). 'The information needs of financial analysts: An international comparison', The International Journal of Accounting, 13, (1), Fall, p.19–27.

Benston, G.J. (1967). 'Published corporate accounting data and stockprices', Journal of Accounting Research, Empirical Research in Accounting: Selected Studies, 5, p.1–54.

Benston, G.J. (1969). 'The value of the SEC's accounting disclosure requirements', Accounting Review, 44, July, p.515–532.

Benston, G.J. (1973). 'Required disclosure and the stock market: An evaluation of the Securities Exchange Act of 1934', American Economic Review, 63, (1), p.132–155.

Benston, G.J. (1976). Corporate financial disclosure in the UK and the USA. Lexington, Massachusetts: Lexington Books.

Benston, G.J. (1980). 'The costs and benefits of government – required disclosure: SEC and FTC requirements: An appraisal', in Demott, D. (Ed.) Corporations at the Cross Roads: Government and Reform. New York: McGraw Hill.

Benston, G.J. (1982). 'Accounting and corporate accountability', Accounting, Organisations and Society, 7, (2), p.87–105.

Benston, G.J. (1985). 'The market for public accounting services: Demand, supply and regulation', Journal of Accounting and Public Policy, Spring, p.33–79.

Biddle, G.C. & Saudagaran, S. M. (1989). 'The effects of financial disclosure levels on firms' choices among alternative foreign stock exchange listings', Journal of International Financial Management and Accounting, 1, (1), Spring, p.55–87.

Biddle, G.C. & Saudagaran, S. M. (1991). 'Foreign stock listings: Benefits, costs, and the accounting policy dilemma', Accounting Horizons, 5, (3), September, p.69–80.

Booth, W.C., Colomb, G.G. & Williams, J.M. (1995). The craft of research. Chicago: The University of Chicago Press.

Bourantas, D., Anagnostelis, J., Mantes, Y. & Kefalas, A.G. (1990). 'Culture gap in Greek management', Organisation Studies, 1, p.261–283.

Bradbury, M.E. (1992). 'Voluntary disclosure of financial segment data: New Zealand evidence', Accounting and Finance, 32, (1), May, p.15–26.

Briston, R.J. (1974). 'The accounting profession in a developing country: An Indonesian case study', Accountant's Magazine, August, p.314–315.

Briston, R.J. (1978). 'The evolution of accounting in developing countries', The International Journal of Accounting, 14, (1), Fall, p.105–120.

Briston, R.J. (1984). 'Accounting standards and host country control of multinationals', British Accounting Review, 16, (1), p.12–26.

Brown, N., Kaur, P. Maugham, S. & Rendall, J. (1995). Financial strategy. (3rd ed.) London: Certified Accountants Educational Projects.

Brugge, W.G. (1963). 'The accountancy profession in Greece', Accounting Review, 38, p.596–600.

Burchell, S., Clubb, C., Hopwood, A., Hughes, J. & Nahapiet, J. (1980). 'The roles of accounting in Organisations and Society', Accounting, Organisations and Society, 5, (1), p.5–27.

Buzby, S.L. (1972). An empirical investigation of the relationship between the extent of disclosure in corporate annual reports and two company characteristics. PhD, Pensylvania State University, Pensylvania, United States of America.

Buzby, S.L. (1974). 'The nature of adequate disclosure', Journal of Accountancy, April, p.38–47.

Buzby, S.L. (1975). 'Company size, listed versus unlisted stocks and the extent of financial disclosure', Journal of Accounting Research, 13, Spring, p.16–37.

Cairns, D. (1996). Letter addressed the CSE. 28 November 1996. Oxfordshire.

Cairns, D. (1997). International accounting standards: Update and compliance report. Oxfordshire: David Cairns.

Cairns, D., Lafferty, M. & Mantle, P. (1984). Survey of accounts and accountants 1983–84, International Accounting Bulletin Series. London: Lafferty Publications.

Caramanis, C.V. (1997). 'The enigma of the Greek auditing profession: some preliminary results concerning the impact of liberalisation on auditor behaviour', European Accounting Review, 6, (1), p.85–108.

Caramanis, C.V. (1999). 'Assessing the impact of liberalisation on auditor behaviour', Accounting, Auditing and Accountability Journal, 11, (5), p.562–592.

Carmines, E.G. & Zeller, R.A. (1979). Reliability and validity assessment. Beverly Hills, California and London, England: Sage Publications.

Caseley, H.R. (1996). 'Greece', in Alexander D. and Archer S. (Eds.) European Accounting Guide. Orlando: Harcourt Brace & Company.

Cerf, A.R. (1961). Corporate reporting and investment decisions. Berkeley, California: The University of California Press.

Charalambis, D. (1989). Patronage relations and populism. The non-institutional consensus in the Greek political system. Athens: Exandas.

396

Chandra, G. (1974). 'A study of the consensus on disclosure among public accountants and security analysts', Accounting Review, October, p.733–737.

Chang, L.S., Most, K.S. & Brain, C.W. (1983). 'The utility of annual reports: An international study, Journal of International Business Studies, Spring/Summer, p.63–84.

Cheng, C.S., Hopwood, W. & Mckeown, J.C. (1992). 'Non–linearity and specification problems in unexpected earnings response regression models, Accounting Review, 67, (3), July, p.579–598.

Choi, F.D.S. (1973a). 'Financial disclosure and entry to the European capital market', Journal of Accounting Research, 11, (2), Autumn, p.159–175.

Choi, F.D.S. (1973b). 'Financial disclosure in relation to a firm's capital costs', Accounting and Business Research, (12), Autumn, p.282–292.

Choi, F.D.S. & Mueller, G.G. (1992). International accounting. Englewood Cliffs, New Jersey: Prentice Hall.

Chow, C. & Wong–Boren, A. (1987). 'Voluntary financial disclosure by Mexican corporations', Accounting Review, 62, (3), July, p.533–541.

Christenson, C. (1983). 'The methodology of positive accounting', Accounting Review, January, p.1–22.

Christodoulou, C. (1996). 'Address to the ICPAC's 1996 AGM', Accountancy Cyprus, 44, September, p.23–25.

CLR (1997). Anaskopisi agoras 1996. Nicosia: CLR Stockbrokers.

Coffee, J.C. (1984). 'Market failure and the economic case for a mandatory disclosure system', Virginian Law Review, 70, p.717–753.

Cooke, T.E. (1989). An empirical study of financial disclosure by Swedish companies. New York: Garland Publishing.

Cooke, T.E. (1991). 'An assessment of voluntary disclosure in the annual reports of Japanese corporations', The International Journal of Accounting, 26, (3), p.174–189.

Cooke, T.E. (1992). 'The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations', Accounting and Business Research, 22, Summer, p.229–237.

Cooke, T.E. (1993). 'Disclosure in Japanese corporate annual reports', Journal of Business Finance and Accounting, 20, June, p.521–535.

Cooke, T.E. & Wallace, R.S.O. (1989). 'Global surveys of corporate disclosure practices and audit firms: A review essay', Accounting and Business Research, 20, (77), p.47–57.

Cooke, T.E. & Wallace, R.S.O. (1990). 'Financial disclosure regulation and its environment: A review and further analysis', Journal of Accounting and Public Policy, 9, (2), Summer, p.79–110.

Cooper, K. & Keim, G.D. (1983). 'The economic rationale for the nature and extent of corporate financial disclosure regulation: A critical assessment', Journal of Accounting and Public Policy, 2, Fall, p.189–205.

Coopers & Lybrand (1993). International accounting summaries. (2nd ed.) Nicosia: Coopers & Lybrand.

Coopers & Lybrand (1994). Cyprus: The way for businessmen and investors. (4th ed.) Nicosia: Coopers & Lybrand.

Coopers & Lybrand (1995). Greece: A guide for businessmen and investors. Athens: Coopers & Lybrand.

Copeland, R. & Fredericks, W. (1968). 'Extent of disclosure', Journal of Accounting Research, 6, (1), Spring, p.106–113.

Costouros, G.J. (1978). 'Auditing in the Athenian state of the golden age: 500–300 B.C.', Accounting Historians Journal, Spring, p.41–50.

Courtis, J.K. (1976). 'Relationships between timeliness and corporate reporting and corporate attributes, Accounting and Business Research, 7, (25), Winter, p.45–56.

Courtis, J.K. (1986). 'An investigation in annual report readability and corporate risk–return relationships', Accounting and Business Research, 16, (64), p.285–294.

Cox, D.R. (1993). 'Causality and graphical models', Bulletin of International Statistical Institute, Proceedings of 49th session, p.365–372.

Cox, D.R. & Wermuth, N. (1996). Multivariate dependencies: Models, analysis and interpretation. London: Chapman & Hall.

Craig, R. & Diga, J. (1998). 'Corporate accounting disclosure in ASEAN', Journal of International Financial Management and Accounting, 9, (3), p.246–274.

Cramer, D. (1994). Introducing statistics for social research. London: Routledge.

Craswell, A. & Taylor, S. (1992). 'Discretionary disclosure of reserves by oil and gas companies: An economic analysis', Journal of Business Finance and Accounting, 19, (2), p.295–308.

Cyprus Chamber of Commerce and Industry (CCCI) (1993). Stock exchange framework. Nicosia: CCCI.

Cyprus, Companies: Chapter 113 of the Laws (1991). Nicosia: Printing Office of the Republic.

Cyprus, Cyprus Stock Exchange Laws of 1993 and 1995 (1996). Nicosia: Printing Office of the Republic.

Cyprus Investment & Securities Corporation (CISCO) (1997). Cyprus Stock Market Review 1996. Nicosia: Cyprus Investments and Securities Corporation.

Cyprus Stock Exchange (CSE) (1996). Rules for admission of securities in the Cyprus stock exchange. Nicosia: Cyprus Stock Exchange.

Da Costa, R., Bourgeois, J. & Lawson, W. (1978). 'A classification of international financial accounting practices', The International Journal of Accounting, 13, (2), Spring, p.73–85.

De Angelo, L. (1981). 'Auditor size and audit quality', Journal of Accounting and Economics, 3, (3), December, p.183–199.

Depoers, F. (2000). 'A cost–benefit study of voluntary disclosure: some empirical evidence from French listed companies', European Accounting Review, 9, (2), p.245–263.

De Vaus, D.A. (1996). Surveys in social research. (4th ed.) London: UCL Press Ltd.

Dhaliwal, D.S. (1980). 'Improving the quality of corporate financial disclosure', Accounting and Business Research, 10, (40), Autumn, p.385–390.

Diamond, D.W. & Verrechia, R.E. (1991). 'Disclosure, liquidity and the cost of capital', Journal of Finance, 46, September, p.1325–1359.

Dye, R. (1985). 'Disclosure of nonproprietary information', Journal of Accounting Research, 23, (1), Spring, p.123–145.

Dye, R. & Sridkar, S.S. (1995). 'Industry–wide disclosure dynamics', Journal of Accounting Research, 33, (1), Spring, p.157–174.

Easterbrook, F.H. & Fischel, D.R. (1984). 'Mandatory disclosure and the protection of investors', Virginian Law Review, 70, May, p.669–715.

Eliokaftos, D.I. (1995). Praktikos odigos anonimon etairion. (5th ed.) Athens: Klapakis.

Elliott, R.K. & Jacobson, P.D. (1994). 'Costs and benefits of business information disclosure: Commentary', Accounting Horizons, 8, (4), December, p.80–96.

Enthoven, A.J. (1976). 'The scope of accounting planning in developing countries', Accounting and Business Research, 22, Spring, p.135–139.

Ependytis (2000). 'Macroeconomic indicators', Ependytis, 7 May, 2000, p.2.

Fama, E.F. (1970). 'Efficient capital markets: A review of theory and empirical work', Journal of Finance, May, p.383–417.

Fama, E.F. (1980). 'Agency problems and the theory of the firm', Journal of Political Economy, 88, (2), April, p.228–307.

Fama, E.F., Fisher, L., Jensen, M.C. & Roll, R. (1969). 'The adjustment of stock prices to new information', International Economic Review, 10, (1), February, p.1–21.

Fama, E.F. & Jensen, M.C. (1983a). 'Separation of ownership and control', Journal of Law and Economics, 26, June, p.301–326.

Fama, E.F. & Jensen, M.C. (1983b). 'Agency problems and residual claims', Journal of Law and Economics, 26, June, p.327–349.

Fechner, H.E. & Kilgore, A. (1994). 'The influence of cultural factors on Accounting Practice', The International Journal of Accounting, 29, p.265–277.

Fédération des Experts Comptables Européens (FEE) (1992). 1992 FEE analysis of European accounting and disclosure practices. London: Routledge.

Fileleftheros (2000). 'Nomimes oi agores aera', Economicos Fileleftheros, 20 August 2000, p.4.

Filios, V.F. (1995). Logistiki gia tin economiki anaptyxi. Athens: Synchroni Ekdotiki.

Financial Mirror (2000). 'Harmonised legislation needs monitoring and implementation', Financial Mirror, 10 May 2000, p.2.

Financial Weekly (2000). 'Greece wins EU executive's backing to join euro', Financial Weekly, 5 May 2000, p.16.

Firer, C. & Meth, G. (1986). 'Information disclosure in annual reports in South Africa', Omega: The International Journal of Management Science, 14, (5), p.374–382.

Firth, M.A. (1976). 'The impact of earnings announcements on the share price behaviour of similar type firms', Econometrics Journal, 86, p.296–306.

Firth, M.A. (1978). 'A study of the consensus of the perceived importance of disclosure of individual items in corporate annual reports', The International Journal of Accounting, 14, (1), Fall, p.57–70.

Firth, M.A. (1979). 'The impact of size, stock market listing and auditors on voluntary disclosure in corporate annual reports', Accounting and Business Research, 9, (36), Autumn, p.273–280.

Firth, M.A. (1980). 'Raising finance and firm's corporate policies', Abacus, 16, December, p.100–115.

Firth, M.A. (1984). 'The extent of voluntary disclosure in corporate annual reports and its association with security risk measures', Applied Economics, 16, p.269–277.

Fishman, M.J. & Hagerty, K.M. (1989). 'Disclosure decisions by firms and the competition for price efficiency', Journal of Finance, 44, p.633–646.

Foster, G. (1980). 'Accounting policy decisions and capital market research', Journal of Accounting and Economics, 2, p.29–62.

Foster, G. (1986). Financial statement analysis. (2nd ed.) New Jersey: Prentice Hall.

Frank, W.G. (1979). 'An empirical analysis of international accounting principles', Journal of Accounting Research, 17, (2), Spring, p.593–605.

Frost, C.A. & Pownall, G. (1994). 'Accounting disclosure practices in the United States and the United Kingdom,' Journal of Accounting Research, 32, (1), Spring, p.75–102.

Gaito, J. (1980). 'Measurement scaes and statistics: resurgence of an old misconception', Psychological Bulletin, 87, (3), p.564–567.

Garsombke, H.P. (1979). 'The relationship between corporate disclosure and firm risk', Journal of Business Finance and Accounting, 32, (1), Spring, p.75–102.

Gernon, H. & Wallace, R.S.O. (1995). 'International accounting research: A review of its ecology, contending theories and methodologies', Journal of Accounting Literature, 14, p.54–106.

Global Training (2000). Prospectus 2000. Athens: Intercollege Global Training.

Gonedes, N. (1978). 'Corporate signalling, external accounting, and capital market equilibrium: Evidence on dividends, income and extraordinary items, Journal of Accounting Research, 16, (1), Spring, p.26–79.

Gonedes, N.J. & Dopuch, N. (1974). 'Capital market equilibrium, information production, and selecting accounting techniques: theoretical framework and review of empirical work', Journal of Accounting Research, Studies on Financial Accounting Objectives, 12, (Supplement), p.48–130.

Goodrich, P.S. (1986). 'Cross–national financial accounting linkages: An empirical political analysis', British Accounting Review, 18, (2), Autumn, p.42–60.

Gray, S.J. (1988). 'Towards a theory of cultural influence on the development of accounting systems internationally', Abacus, 24, (1), p.1–13.

Gray, S.J. & Roberts, C.B. (1989). Voluntary information disclosure and the British multinationals: corporate perceptions of costs and benefits. Eaglewood Cliffs, NJ: Prentice–Hall.

Greene, W.H. (1993). Econometric analysis. (2nd ed.) London: Prentice Hall International Editions.

Grigorakos, T.G. (1996). Analysi–ermenia tou Ellinigou genikou logistikou shediou. (4th ed.) Athens: Sakoulla Publications.

Gujarati, D.N. (1995). Basic econometrics. (3rd ed.) New York: McGraw–Hill.

Hadjiroussos, N. (1998). Address to the annual general meeting of the ICPAC. Nicosia: Institute of Certified Public Accountants.

Henderson, M.S. (1969). Some factors influencing the annual reports of North America corporations, Unpublished PhD Thesis, University of California, Los Angeles, USA.

Hendriksen, E.S. (1982). Accounting Theory. (4th ed.) Homewood, Illinois: Richard D. Irwin.

Hofstede, G. (1980). Culture's consequences: International differences in work–related values. Beverly Hills, CA: Sage Publications.

Hofstede, G. (1983). 'The cultural relativity of organisational practices and theories', Journal of International Business Studies, 14, (2), Fall, p.75–89.

Hofstede, G. (1984). 'Cultural dimensions in management and planning, Asian and Pacific Journal of Management, January, p.83–84.

Hofstede, G. (1985). 'The ritual nature of accounting systems', paper presented at EIASM Workshop 'Accounting and Culture', June, p.5–7.

Hofstede, G. (1987). 'The cultural context of accounting' in B. Cushing (Ed.) Accounting and Culture. Sarasota, FL: American Accounting Association, p.1–10.

Hossain, N., Perera, M.H. & Rahman, A.R. (1995). 'Voluntary disclosure in the annual reports of New Zealand companies', Journal of International Financial Management and Accounting, 6, (1), p.69–87.

Hossain, M. , Tan, L.M. & Adams, M. (1994). 'Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on the Kuala Lumpur stock exchange', The International Journal of Accounting, 29, (4), p.334–351.

Hussein, M.E. (1996). 'A comparative study of cultural influences on financial reporting in the U.S. and The Netherlands, The International Journal of Accounting, 31, (1), p.95–120.

Hussey, J. & Hussey, R. (1997). Business research: A practical guide for undergraduate and postgraduate students, Basingstroke, Hampshire and London: Macmillan.

Ijiri, Y., Jaedicke B.K. & Knight, K.E. (1966). 'The effects of accounting alternatives on management decisions', in Jaedicke R.K., Ijiri, Y. & Nielsen O. (Eds.) Research of accounting measurement. New York: American Accounting Association.

Iman, R.L. & Conover, W.J. (1979). 'The use of rank transformation in regression, Technometrics, 21, (4), November, p.499–509.

Imhoff, E.A., Jr. (1992). 'The relation between perceived accounting quality and economic characteristics of the firm, Journal of Accounting and Public Policy, 11, (2), Summer, p.97–118.

Inchausti, B.G. (1997). 'The influence of company characteristics and accounting regulation on information disclosed by Spanish firms', European Accounting Review, 6, (1), p.45–68.

Intercollege (1997). A snapshot of the Cypriot regulatory framework of accounting. Nicosia: Intercollege Professional Studies Department.

Intercollege (1998). Prospectus of the Professional studies department. Nicosia: Intercollege.

Institute of Qualified Certified Accountants–Auditors of Cyprus (IQCAAC) (1997). Open announcement. Nicosia: IQCAAC.

International Accounting Standards Committee (IASC) (1996). International Accounting Standards. London: Staples Printers Rochester.

Ioannou, V. (1995). 'Auditing in Greece' in Coopers and Lybrand's (Eds.) Spotlight on Cyprus. Nicosia, Coopers & Lybrand, p.12.

Jaggi, B.L. (1975). 'The impact of cultural environment of financial disclosures, The International Journal of Accounting, 10, (2), Spring, p.75–84.

Jensen, M.C. & Meckling, W.H. (1976). 'Theory of the firm: Managerial behavior, agency costs and ownership structure', Journal of Financial Economics, 3, (4), October, p.305–360.

Jensen, M. & Meckling, W. (1978). 'Can the corporation survive?', Financial Analysts Journal, 34, (1), January – February, p.31–37.

Jones, M.J. (1986). 'A longitudinal study of the readability of the chairman's narratives in the corporate reports of a U.K. company', Accounting and Business Research, 18, (64), p.297–306.

Kahl, A. & Belkaoui, A. (1981). 'Bank annual report disclosure adequacy internationally', Accounting and Business Research, 11, (43), Summer, p.189–196.

Kakoulidou, I. (2000). 'Four years of effort', Vima, 7 May, 2000, p.2.

Kendall, M.G. & Stuart, A. (1961). The advanced theory of statistics. New York: Charles Griffin Publishers.

Kennedy, P. (1996). A guide to econometrics. (3rd ed.) Oxford: Blackwell Publishers.

Khasharmeh, H.A. (1995). The status of financial reporting, accounting education and profession in a developing country: The case of Jordan. PhD, University of Middlesex, London, United Kingdom.

Kidder, L.H. & Judd, C.H. (1986). Foundations of behavioral research. (3rd ed.) New York: Holt, Rinehart and Winston.

Kim, K.A. & Limpaphayom, P. (1998). 'Taxes and firm size in Pacific–basin emerging economies', Journal of International Accounting, Auditing and Taxation, 7, (1), p.47–68.

Kinnear, P.R. & Gray, C.D. (1996). SPSS for windows made simpler. East Sussex: Psychology Press.

Kirsch, R.J. (1994). 'Towards a global reporting model: Culture and disclosure in selected capital markets', in Wallace R.S.O., Samuels J.M. and Briston R.J. (Eds.) Research in Third World accounting. Greenwich, London: JAI Press, p.71–109.

Kish, L. (1987). Statistical design for research. New York: Chichester: Wiley, USA.

Klerides, T. (2001). 'The Cyprus Economy', Accountancy Cyprus, 61, p.32–36.

Kochanek, R.F. (1974). 'Segmental financial disclosure by diversified firms and security prices', Accounting Review, April, p.145–258.

Koutsoyiannis, A. (1977). Theory of econometrics. (2nd ed.) London: Macmillan.

KPMG (1995). Investment in Cyprus. (6th ed.) Nicosia: KPMG.

KPMG (1997). Investment in Greece. (4th ed.) Athens: KPMG.

Lang, M. & Lundholm, R. (1993). 'Cross–sectional determinants of analysts ratings of corporate disclosure', Journal of Accounting Research, 31, p.246–271.

Lang, M. & Lundholm, R. (1996). 'Corporate disclosure policy and analyst behaviour', Accounting Review, 71, (4), p.467–492.

Lawrence, S. (1996). International accounting. London: International Thomson Business Press.

Lee, T.A. & Tweedie, D.P. (1977). The private shareholder and the corporate report. London: The Institute of Chartered Accountants in England and Wales.

Leftwich, R.W. (1980). 'Market failure fallacies and accounting information', Journal of Accounting and Economics, 2, p.193–211.

Leftwich, R.W., Watts, R.W. & Zimmerman, J.L. (1981). 'Voluntary corporate disclosure: The case of interim reporting', Journal of Accounting Research, 19, (Supplement), p.50–77.

Lev, B. (1992). 'Information disclosures strategy', <u>California Management Review,</u> 34, Summer, p.9–32.

Libby, R. (1981). <u>Accounting and human information processing: Theory and application.</u> Englewood Cliffs, New Jersey: Prentice Hall.

Lipsey, R.G. (1983). <u>An introduction to positive economics.</u> (6th ed.) Ontario: Weidenfeld and Nicolson.

Lord, F.M. (1953). 'On the statistical treatment of football numbers', <u>American Psychologist,</u> 8, p.750–751.

Lundbald, H. (1986). <u>Voluntary financial disclosure: An international comparison of managerial policies.</u> PhD, University of Washington, Washington, United States of America.

MacErlean, N. (1992). 'Greek firms poised for audit explosion', <u>Accountancy,</u> August, p.101.

Malone, D., Fries, C. & Jones, T. (1993). 'An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry', <u>Journal of Accounting, Auditing and Finance,</u> 8, (3), Summer, p.249–273.

Marston, C.L. (1986). <u>Financial reporting in India.</u> London: Croom Helm.

Marston, C.L. & Robson, P. (1997). 'Financial reporting in India: Changes in disclosure over the period 1982 to 1990', <u>Asia–Pacific Journal of Accounting,</u> June, p.109–140.

Marston, C.L. & Shrives, P.J. (1991). 'The use of disclosure indices in accounting research: A review article', <u>British Accounting Review,</u> 29, p.195–210.

Marston, C.L. & Shrives, P.J. (1995). <u>A review of the development and use of explanatory models in financial disclosure studies,</u> Unpublished conference paper, 19th European Accounting Association Annual Congress, Bergen, Norway.

Marston, C.L. & Shrives, P.J (1996). <u>A review of empirical research into financial disclosure.</u> Working Paper, University of Northumbria at Newcastle.

Mautz, R.K. (1963). 'Accounting as a social science', <u>Accounting Review,</u> April, p.319.

Mavrogordatos, G. (1988). <u>Between pityocamptis and procroustis: Trade union in today's Greece.</u> Athens: Odysseas.

McKinnon, J.L. & Dalimunthe, L. (1993). 'Voluntary disclosure of segment information by Australian diversified companies', Accounting and Finance, 33, (1), May, p.33–50.

McNally, G.M., Eng, L.H. & Hasseldine, C.R. (1982). 'Corporate financial reporting in New Zealand: An analysis of user preferences, corporate characteristics and disclosure practices for discretionary information', Accounting and Business Research, 13, Winter, p.11–20.

Meek, G.K. & Gray, S.J. (1989). 'Globalisation of stock markets and foreign listing requirements: Voluntary disclosures by continental European companies listed on the stock exchange', Journal of International Business Studies, Summer, p.315–336.

Meek, G.K., Gray, S.J. & Whittington, G. (1975). 'Directors' pay, growth and profitability', Journal of Industrial Economics, 14, September, p.1–14.

Meek, G.K., Roberts, C.B. & Gray, S.J. (1995). 'Factors influencing voluntary annual report disclosures by U.S., U.K. and continental European multinational corporations, Journal of International Business Studies, Third Quarter, p.555–572.

Meek, G.K. & Saudagaran, S.M. (1990). 'A survey of research on financial reporting in a transnational context', Journal of Accounting Literature, 9, p.145–182.

Ministry of National Economy (1996). Current developments and trends in the Greek and international economy. Athens: Ministry of National Economy.

Mitchell, J.D., Chia, C.W.L. & Loh, A.S. (1995). 'Voluntary disclosure of segment information: Further Australian evidence', Accounting and Finance, November, p.1–16.

Moonitz, M. (1961). The basic postulates of accounting: Accounting research study No. 1. New York: American Institute of Certified Public Accountants.

Moore, M.L. and Buzby, S. (1972). 'The quality of corporate financial disclosure: A comment', Accounting Review, July, p.581–584.

Mouzelis, N. (1986). Politics in the semi–periphery: Early parliamentarism and late industrialisation in the Balkans and Latin America. London: Macmillan.

Mueller, G.G. (1967). International accounting. New York: Macmillan & Co.

Myers, S.C. (1977). 'Determinants of corporate borrowing', Journal of Financial Economics, 5, (2), November, p.147–175.

Nair, R.D. & Frank, W.G. (1980). 'The Impact of disclosure and measurement practices on international accounting classifications', Accounting Review, 55, (3), July, p.426–450.

Naser, K.H. (1993). Creative financial accounting. Hertfordshire: Prentice Hall.

Neter, J. Kutner, M.H., Nachtsheim, C.J. & Wasserman, E. (1996). Applied linear regression models. (3rd ed.) Chicago: Times Mirror Higher Education Group.

Nicholls, D. & Ahmed, K. (1995). 'Disclosure quality in corporate annual reports of non–financial companies in Bangladesh' in Wallace, R.S.O., Briston, R.J. and Saudagaran, S.M. (Eds.), Research in accounting in emerging economies, 3, London, England and Greenwich, Connecticut: JAI Press, p.149–170.

Nobes, C.W. (1981). 'An empirical analysis of international accounting principles: A comment', Journal of Accounting Research, 19, (1), Spring, p.268–270.

Nobes, C.W. (1983). 'A judgmental international classification of financial reporting practices, Journal of Business Finance and Accounting. 10, (1), Spring, p.1–19.

Nobes, C.W. & Parker, R.H. (1995). Comparative international accounting. (4th ed.) Hemel Hempstead, Hertfordshire: Prentice Hall International (U.K.) Ltd.

Noreen, E. (1988). 'An empirical comparison of probit and OLS regression hypothesis tests', Journal of Accounting Research, 26, (1), Spring, p.119–133.

Okcabol, F. & Tinker, T. (1993). 'Dismantling financial disclosure regulations: Testing the Stigler–Benston hypothesis', Accounting, Auditing and Accountability Journal, 6, (1), p.10–38.

Oppenheim, A.N. (1996). Questionnaire design, interviewing and attitude measurement. London: Pinter Publishers.

Owusu–Ansah, S. (1997). 'The determinants of voluntary financial disclosure by Swiss listed companies: a comment', European Accounting Review, 6, (3), p.487–492.

Owusu–Ansah, S. (1998). The adequacy of corporate mandatory disclosure practices on emerging markets: A case study of the Zimbabwe stock exchange. PhD, Middlesex University Business School, London, United Kingdom.

Pancyprian Institute of Certified Public Accountants (PICPA) (1997). Letter addressed to the president of ICPAC. 5 February, 1997. Nicosia.

408

Papas, A.A. (1993). European financial reporting: Greece. London: Routledge.

Patton, J. & Zelenka, I. (1997). 'An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech republic', European Accounting Review, 6, (4), p.605–626.

Pelides, P. (2000). Address to the annual general meeting of ICPAC. Nicosia: Institute of Certified Public Accountants.

Pelides, P. (2001). 'Address on the occasion of the meeting in Cyprus of the International Practices Committee', Accountancy Cyprus, 61, p.23–24.

Planning Bureau (1996a). Economic and social indicators. Nicosia: Planning Bureau Publications.

Planning Bureau (1996b). Economic outlook. Nicosia: Planning Bureau Publications.

Planning Bureau (1997). Source of economic and other data: 1996. Nicosia: Planning Bureau Publications.

Pratt, J. & Behr, G. (1987). 'Environmental factors, transaction costs and external reporting. A cross–national comparison', The International Journal of Accounting, Spring, p.1–24.

Radebaugh, L.H. (1975). 'Environmental factors influencing the development of accounting objectives, standards and practices in Peru, The International Journal of Accounting, 11, (1), Fall, p.39–56.

Radebaugh, L.H. and Gray, S.J. (1997). International accounting and multinational enterprises. (4th ed.) New York: John Wiley & Sons.

Raffournier, B. (1995). 'The determinants of voluntary financial disclosure by Swiss listed companies', European Accounting Review, 4, (2), p.261–280.

Raffournier, B. (1997). 'The determinants of voluntary financial disclosure by Swiss listed companies: a reply', European Accounting Review, 6, (3), p.493–496.

Ramanathan, R. (1995). Introductory econometrics with applications. (3rd ed.) Orlando, Florida: Harcourt Brace and Company.

Retherford, R.D. & Choe, M.K. (1993). Statistical models for causal analysis. New York: John Wiley & Sons.

Ricks, W. (1982). 'Market assessment of alternative accounting methods: A review of the empirical evidence', Journal of Accounting Literature, 1, p.59–99.

Robbins, W.A. & Austin, K.R. (1986). 'Disclosure quality in governmental financial reports: An assessment of the appropriateness of a compound measure', Journal of Accounting Research, 24, (2), Autumn, p.412–421.

Robinson, C. & Venieris, G. (1996). 'Economics, culture and accounting standards: A case study of Greece and Canada', Canadian Journal of Administration, 13, p.119–131.

Robson, C. (1998). Real world research. Massachusetts: Blackwell Publishers.

Ross, S.A. (1979). 'Disclosure regulation in the financial markets: Implications of modern finance theory and signalling theory' in Edwards, F.R. (Ed.) Issues in financial regulation: Regulation of American business and industry. New York: McGraw Hill, p.177–216.

Salter, S. & Niswander, F. (1995). 'Cultural influence on the development of accounting systems internationally: A test on Gray's (1988) theory', Journal of International Business Studies, 26, (2), p.379–397.

Saudagaran, S.M. & Biddle, G.C. (1992). 'Financial disclosure levels and foreign stock exchange listing decisions, Journal of International Financial Management and Accounting, 4, (2), Summer, p.106–148.

Schipper, K. (1981). 'Discussion of voluntary corporate disclosure: The case of interim reporting, Journal of Accounting Research, 19, (Supplement), p.85–88.

Sekaran, U. (1992). Research methods for business. (2nd ed.) New York: John Wiley & Sons.

Seligman, J. (1983). 'The historical need for a mandatory corporate disclosure system', Journal of Corporation Law, 9, Fall, p.1–61.

Selltiz, C., Wrightsman, L.S. & Cook, S.W. (1981). Research methods in social relations. (4th ed.) New York: Holt, Rinehart and Winston.

Sharelink (2000). 1999: The year of CSE, SFS, Research Departmnet, Nicosia· SFS.

Siegel, S. & Castellan, N.J., Jr (1988). Non–parametric statistics for the behavioural sciences. (2nd ed.) New York: McGraw–Hill.

Sigma (1996). A guide to the Athens stock market. Athens: Sigma Securities S.A.

Sigma (2000). Annual macroeconomic review and outlook. Athens: Sigma Securities S.A.

Singhvi, S.S. (1967). Corporate disclosure through annual reports in the USA and India. PhD, Graduate School of Business, Columbia University, United States of America.

Singhvi, S.S. & Desai, H. (1971). 'An empirical analysis of the quality of corporate financial disclosure', Accounting Review, 46, (1), January, p.621–632.

Singhvi, S.S. & Desai, H.B. (1972). 'The quality of corporate financial disclosure: A reply', Accounting Review, July, p.585–586.

Skinner, D.J. (1994). 'Why firms voluntarily disclose bad news?', Journal of Accounting Research, 32, (1), Spring, p.38–60.

Soper, F.J. & Dolphin, R. (1964). 'Readability and corporate annual reports', Accounting Review, April, p.358–362.

Spero, L.L. (1979). The extent and causes of voluntary disclosure of financial information in three European capital markets: An exploratory study. PhD, Graduate School of Business, Harvard University, Harvard, United States of America.

Stagna, K.G. (1976). 'Disclosure in published annual reports', Financial Management, Winter, p.42–52.

Stata Corporation (1997). Statistics: Data management and graphics (Stata Reference Manual, Release 5, Volume 3, p.2). College Statuon, Texas: Stata Press.

Stephens, S.S. (1946). 'On the theory of scales of measurement', Science, 103, p.677–680.

Sterling, R.R. (1975). 'Toward a science of accounting', Financial Analysts Journal, September–October, p.28–36.

Stigler, G.J. (1961). 'The economics of information', Journal of Political Economy, 64, (3), June, p.213–225.

Stigler, G.J. (1964). 'Public regulation of the securities markets', Journal of Business, 37, (2), p.117–142.

Stigler, G.J. (1971). 'The theory of economic regulation', Bell Journal of Economics and Management Science, Spring, p.3–21.

Stigler, G.J. (1981). 'The allocation role of the stock market: Pareto optimality and competition', Journal of finance, 36, (2), May, p.235–251.

Stilling, P., Norton, R. & Hopkins, L. (1984). World accounting survey. London: Financial Times.

Tai, B.Y.K., Au–Yeung, P.K., Kwok, M.C.M. & Lau, L.C.W. (1990). 'Non–compliance with disclosure requirements in financial statements: The case of Hong Kong companies', The International Journal of Accounting, 25, (2), p.99–112.

Taylor, P. & Turley, S. (1986). Modern development in accounting and finance: The regulation of accounting. Oxford: Basil Blackwell.

Televantides, T. (1995). 'Accounting in Cyprus' in Coopers & Lybrand (Ed.) Spotlight on Cyprus. Nicosia: Coopers & Lybrand, p.8.

Tonkin, D.J. (1989). World survey of published accounts: An analysis of 200 annual reports from the world's leading companies. London: Lafferty Publications.

Turabian, K.L. (1996). A manual for writers of term papers, theses and dissertations. (6th ed.) Chicago: The University of Chicago Press.

Vafeas, N., Trigeorgis, L. & Georgiou, X. (1998). 'The usefulness of earnings in explaining stock returns in an emerging market: The case of Cyprus', The European Accounting Review, 7, (1), p.105–124.

Verrechia, R. (1983). 'Discretionary disclosure', Journal of Accounting and Economics, December, p.179–194.

Violet, W.J. (1973). 'The development of international accounting standards: An anthropological perspective', The International Journal of Accounting, 18, (2), Spring, p.1–12.

Vogt, W.P. (1993). Dictionary of statistics and methodology. Newbury Park: Sage Publications.

Wagenhofer, A. (1990). 'Voluntary disclosure with a strategic opponent', Journal of Accounting and Economics, 12, p.341–363.

Wallace, R.S.O. (1987). Disclosure of accounting information in developing countries: A case study of Nigeria, PhD, University of Exeter, Exeter, United Kingdom.

Wallace, R.S.O. (1988). 'Corporate financial reporting in Nigeria', Accounting and Business Research, 18, (72), p.352–362.

Wallace, R.S.O. & Cooke, T.E. (1990). 'Non–response bias in mail accounting survey: A pedagogical extension', British Accounting Review, 22, p.283–288.

Wallace, R.S.O. & Gernon, H. (1991). 'Frameworks for international comparative financial accounting', Journal of Accounting Literature, 10, p.209–263.

Wallace, R.S.O. & Mellor, C.J. (1988). 'Non–response bias in mail accounting survey: A pedagogical note', British Accounting Review, 20, (1), p.131–139.

Wallace, R.S.O. & Naser, K. (1995). 'Firm–specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong', Journal of Accounting and Public Policy, 14, p.311–368.

Wallace, R.S.O., Naser, K. & Mora, A. (1994). 'The relationship between the comprehensiveness of corporate annual reports and firm characteristics in Spain', Accounting and Business Research, 25, (97), p.41–53.

Walton, P. (1986). 'The export of British accounting legislation to commonwealth countries, Accounting and Business Research, Autumn, p.353–357.

Watts, R.L. (1977). 'Corporate financial statements, a product of the market and political process', Australian Journal of Management, 2, p.53–75.

Watts, R.L. & Zimmerman, J.L. (1978). 'Towards a positive theory of the determination of accounting standards', Accounting Review, 53, (1), January, p.112–134.

Watts, R.L. & Zimmerman, J.L. (1979). 'The demand for and supply of accounting theories: The market for excuses', Accounting Review, 54, (2), April, p.273–305.

Watts, R.L. & Zimmerman, J.L. (1983). 'Agency problems, auditing and the theory of the firm: Some evidence', Journal of Law and Economics, October, p.613–634.

Watts, R.L. & Zimmerman, J.L. (1986). Positive accounting theory. Eaglewood Cliff, New Jersey: Prentice–Hall.

Whittington, G. (1987). 'Positive accounting: A review article', <u>Accounting and Business Research,</u> 17, (68), p.327–336.

Whittred, G.P. (1980). 'The timeliness of Australian annual reports: 1972–1977', <u>Journal of Accounting Research,</u> 18, (2), Autumn, p.623–628.

Wiseman, J. (1982). 'An evaluation of environmental disclosures made in corporate annual reports', <u>Accounting, Organisation and Society,</u> 7, (1), p.53–63.

Yamey, B.S. (1980). 'Early views on the origins and development of bookkeeping and accounting', <u>Accounting and Business Research,</u> Special Accounting History Issue.

Zampelas, M. (2000). 'The accounting profession in Cyprus', <u>Accountancy Cyprus,</u> 59, June, p.38–45.

Zarzeski, M.T. (1996). 'Spontaneous harmonisation effects of culture and market forces on accounting disclosure practices', <u>Accounting Horizons,</u> 10, (1), March, p.18–37.

Zeckhauster, R.J. & Pound, J. (1990). 'Are large shareholders effective monitors? An investigation of share ownership and corporate performance' in Hubbaud, R.G. (Ed.) <u>Asymmetric information, corporate finance and investment.</u> Chicago: The University of Chicago Press, p.149–180.

Zimmerman, J. (1977). 'The municipal accounting maze: An analysis of political incentives', <u>Journal of Accounting Research,</u> 15, (Supplement), p.107–144.

Zimmerman, J. (1983). 'Taxes and firm size', <u>Journal of Accounting and Economics,</u> 5, (2), p.119–149.