Voluntary Disclosure in a European Emerging Capital Market: The Case of the Athens Stock Exchange

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DEDICATION

This Ph.D. thesis is dedicated
to the memory of Kiki Leventi

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ABSTRACT

This thesis investigates empirically and explains theoretically the voluntary disclosure practices of public companies listed on an emerging European capital market at a time of rapid change. An investigation of the voluntary disclosure definition clarifies research approaches and definitions in prior empirical studies. The thesis also investigates association between selected corporate characteristics and voluntary disclosure. A voluntary disclosure index is developed to measure the extent of voluntary disclosure published in annual reports issued by 87 companies listed on the Athens Stock Exchange. Segmentation of the voluntary disclosure index into categories of corporate environment, social responsibility and financial information provides scope for further investigation and richer interpretation by testing corporate characteristics against each category of voluntary disclosure. Theoretical considerations and particular institutional and regulatory characteristics are applied to formulate testable hypotheses relating to size, gearing, profitability, liquidity, share marketability, industry, share volatility, share yield, type of report, and listing status. Using univariate and linear regression analysis, significant independent variables that explain variation in overall voluntary disclosure are found to be size, type of report, listing status, industry and share yield. It is also found that the observed association meets expectations in the separate categories of disclosure based on previous empirical work.

Interview research is employed to explore further issues related to voluntary disclosure operation aiming at a better assessment of voluntary disclosure. Perceptions of influential market participants (directors, financial analysts, auditors, regulators and bankers) cast light on issues related to cost and benefits related issues, use and credibility of voluntary disclosures. The nature of voluntary disclosure and private voluntary disclosure are assessed through interview analysis.

Overall research findings support systematic associations between corporate characteristics and voluntary disclosure. Interpretation is provided for significant and non-significant associations. Conclusions are drawn regarding the relative usefulness

of theoretical frameworks in explaining voluntary disclosure in the case of Greece. Proposals for further research and policy implications are discussed.

ABBREVIATIONS

AE	Company Limited by Shares
$_{adj}R^2$	Adjusted R Square
APB	Accounting Principles Board
Art	Article
ASB	Accounting Standards Board
ASE	Athens Stock Exchange
ASSC	Accounting Standards Steering Committee
BoD	Board of Directors
CCGG	Committee on Corporate Governance in Greece
CMC	Capital Markets Commission
ECA	Economic Cooperation Agreement
EEC	European Economic Community
EELD	Committee for Resolutions and Accounting Disputes
ELB	Accounting Books Committee
EU	European Union
EPS	Earnings Per Share
ESYL	National Accounting Standards Board
EU	European Union
FASB	Financial Accounting Standards Board
GAP	General Accounting Plan
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GRD	Greek Drachma
GS	Government Supervisor
IAS	International Accounting Standard
IASC	International Accounting Standard Committee
K-S	Kolmogorov-Smirnov
LSE	London Stock Exchange

M&A	Mergers and Acquisitions
MD	Ministerial Decrees
MIS	Management Information Systems
MF	Ministry of Finance
MNE	Ministry of National Economy
MSE	Mean Square Error
MNE	Ministry of National Economy
NYSE	New York Stock Exchange
OECD	Organisation for Economic Co-operations and Development
para	Paragraph
PBT	Profits Before Tax
PD	Presidential Decisions
SEC	Securities and Exchange Commission
SELE	Association of Certified Accountants and Auditors
SPSS	Statistical Package for Social Sciences
SOE	Institute of Sworn-in Auditors of Greece
SOL	Institute of Certified Public Accountants of Greece
TSEC	Thessaloniki Stock Exchange Center
UK	United Kingdom
US	United States

CHAPTER 1

1. Introduction, Objectives and Organisation of the Thesis

1.1 Introduction

Emerging capital markets have experienced a significant growth during the 1990s, providing returns larger than the developed capital markets as a whole (The Economist, 1997). This may give rise to the perception that accounting information tends to become increasingly important because such markets are characterised by '*...inadequate information about companies, doubtful accounting practices and lax regulation...*' (ibid.). Several researchers investigated the efficient markets hypotheses in these markets and they found informational inefficiency (e.g. Alexakis, 1992; Dickinson and Muragu, 1994). The importance of a fair securities market in economic development and growth is well documented in the literature (e.g. Sedaghat et al., 1994). A part of accounting disclosure, known as '*voluntary disclosure*', has been suggested to be of particular importance in business and economy (Gibbins et al., 1992).

Voluntary disclosure is a response to various incentives, market and regulatory forces, economic issues and environmental factors (Radebaugh and Gray, 1997, p.213) moulded by cost-benefit factors, organisation position on disclosure, policies and politics and by beliefs about the strategic value of disclosure (Gibbins et al., 1992). Research in this area has employed several theoretical frameworks as useful grounds for understanding voluntary disclosure. Economics-based theories are mainly considered by this study. A goal of this research is to provide evidence of theories of disclosure in the context of emerging capital markets where the applicability of theories is less straightforward. That is met by quantitative research. Moreover, expanding the understanding of voluntary disclosure, theoretical considerations are aimed to become more consistent with the actual practice of voluntary disclosure in an emerging capital market. That is met by interview research.

In developed capital markets there is a relatively clear division between regulated and voluntary information. Where capital markets are at a relatively early stage of development there is more scope for evaluating the nature of voluntary disclosure across a range of categories and types of regulation. Thus, the nature of voluntary disclosure becomes particularly revealing here. The Athens Stock Exchange (ASE) provides a suitable case for such investigation due to particular characteristics and the less regulated domestic accounting system compared with the majority of other European capital markets. A better understanding of voluntary disclosure can be achieved when influential factors are detected and analysed. That also increases the understanding of accounting and corporate reporting in Greece as an example of an emerging Southern European capital market, and offers the possibility of policy-making implications.

The ASE has experienced a rising trading activity, particularly since 1997, which was a year of abrupt changes in stock prices and market capitalisation. The general index of the ASE increased by 60% in 1997 over the average for the previous year. Around 1997, a large number of companies entered the market for the first time, while existing ones raised new capital from the capital market (Karathanasis et al., 1999). These changes in activity were the result of important amendments to stock exchange legislation and the partial privatisation of the stock exchange. Moreover, new markets were established under the regulation of the ASE, economic fundamentals improved which brought down interest rates, the 2004 Olympic games were awarded to Athens and the challenges of the single currency and international markets were recognised by the Greek business community.

In consequence of this combination of activity in economic upturn, accounting information has become increasingly expected by market participants for decision making. Although the ASE is becoming particularly important for the domestic and international business community, there has been little published academic research concerning issues of accounting disclosure or regulation. The need for such research becomes particularly necessary because the ASE is becoming increasingly important to international investors and its status has been upgraded by international investment

funds (Mantikidis, 2000). Moreover, the ASE was judged to be the fourth best performing capital market in 1997 with a strong potential for further development (ASE, 1998a). This combination of factors marks 1997 as the start of a new phase of interest in stock market activity and therefore provides a particularly interesting point in time for researching reporting practices and apparently voluntary aspects of disclosure by listed companies.

A study of voluntary disclosure by companies listed on the ASE in 1997 provides insight into a situation where the domestic and international demand for information suggests that corporate reporting will improve. In the light of the European influence and the pressures from international markets the adoption of reporting practices relevant to developed capital markets may overcome the indigenous cultural factors which are related to the strong secrecy of the accounting environment (Papas, 1993). In such a situation, it could be argued that the current institutional framework and the established corporate culture have been strong enough to have an impact on the way corporate reporting is shaped and actually practised. If accounting responds to the environment in which it is situated (Choi and Mueller, 1992, p.39) and is influenced by cultural values (Jaggi, 1975; Gray, 1988), then corporate reporting, as evidenced by voluntary disclosure, may select a way well worth investigating to respond to rapid change in such institutional and cultural factors which may be relevant to Greek characteristics. Moreover, the ASE is investigating reporting practices which will lead to new regulation (ASE, 1998c). Therefore, it is expected that voluntary information at the time will become mandatory in future years. That indicates that the aim, results and interpretation of this study are active subjects in the ASE agenda, which may justify further the importance of this study.

The rest of this chapter is organised as follows. Section 1.2 outlines the general objectives of this study. Specific objectives are presented in 1.3. Research questions are reported in 1.4. The motivation of this study is described in 1.5. Section 1.6 contains a summary of the research methods used. The main contribution and limitations of this research study are outlined in 1.7 and 1.8 respectively. Finally, the organisation of the thesis is presented in 1.9.

1.2 General Objectives

The main objective of this research study is to make a contribution to knowledge in three main areas. The first is to contribute to the exploration of the relative applicability of disclosure theories in relation to a European emerging capital market. The second is to contribute to issues related to the nature and definition of voluntary disclosure. The third objective of this study is to contribute to a more comprehensive understanding of voluntary disclosure in emerging capital markets. These are further explained as follows.

1.2.1 Contribution to the Literature of Disclosure in Emerging Capital Markets on the Applicability of Disclosure Theories (General Objective 1)

There are many theories that provide an explanatory framework for accounting disclosure. Most of these theories have been introduced and developed in the context of developed capital markets (mainly UK and US). The relative applicability of some of these theories when they are directly applied in capital markets with different institutional characteristics has been questioned by prior research (e.g. Wallace and Naser, 1995). Emerging capital markets may be particularly the case here. While accounting disclosure research has shown a geographical preference for testing relevant theories in Anglo-Saxon countries, where well-developed capital markets are established, this research refers to a Mediterranean European country. Disclosure theories are employed and analysed by this study in relation to voluntary disclosure, in order to derive explanatory factors of voluntary disclosure and to assist forming prior expectations about them. That leads to the formulation of testable hypotheses. The applicability of the disclosure theories as an explanatory framework in general and the particular relevance of some of the theories in a European emerging capital market are assessed by the empirical results. It is intended that this study will assist in remedying a continuing lack of understanding of Southern European reporting practices among international audiences by shedding some light on the applicability of theoretical models to Greek voluntary reporting practices as an example of such a capital market.

1.2.2 Contribution to the Nature and Definition of Voluntary Disclosure (General Objective 2)

Voluntary disclosure is an abstract concept (Wallace, 1987). When abstract concepts are examined there exists a potential for diverse understanding. That may be also true in accounting research where differential research contexts and methods cause voluntary disclosure to be defined and researched in various ways. The relative difficulty of defining voluntary disclosure provides scope for differential comprehension or treatment of this concept. However, if concepts are to serve their functions they have to be clear, precise and agreed upon (Nachmias and Nachmias, 1996, p.28). Therefore, an investigation of the nature of voluntary disclosure in different empirical studies builds upon comprehensibility of research and also assists in a development of a method to define voluntary disclosure in an emerging capital market, which can be relied upon by similar studies.

1.2.3 Contribution to Understanding Voluntary Disclosure Behaviour (General Objective 3)

Voluntary disclosure has been described as the '*quintessential accounting problem*' (Verrecchia, 1990). Voluntary disclosure is a complicated process which interrelates with many environmental and corporate aspects (Radebaugh and Gray, 1997, p.213). This study aims to contribute by providing some further understanding about voluntary disclosure behaviour. Evidence on explanatory factors of voluntary disclosure and insights on relevant issues are aimed to enlighten the way voluntary disclosure is managed. That is attempted in a European emerging capital market with particular characteristics, at the start of a time of rapid change in the capital market.

1.3 Specific Objectives of the Empirical Study

The specific objectives of the empirical study meet the aforementioned general objectives. The specific empirical objectives aim to assess the relative applicability of disclosure theories in a European emerging capital market and also to evaluate voluntary disclosure behaviour. The nature of voluntary disclosure is assessed by the evaluation and critical analysis of relevant empirical attempts in defining voluntary disclosure. The main goals of the empirical study are: (i) investigating the extent of

voluntary reporting practices of companies listed on the ASE, (ii) providing evidence on relative associations with a set of explanatory factors, and (iii) gathering further insights into voluntary disclosure behaviour by examining perceptions of influential individuals. These specific objectives of the empirical study are stated as follows:

1.3.1 Extent of Voluntary Disclosure (Specific Objective 1)

Empirical evidence of the extent of voluntary disclosure sets out to obtain a better understanding of the corporate reporting system and to provide further insights into the extent to which companies satisfy demands for enhanced corporate specific information. The extent of disclosure of specific categories of information is expected to reveal indications about the relative trends, frequency and inefficiency of voluntary reporting practices. This objective is met by a descriptive presentation of voluntary disclosure practices revealed by application of the voluntary disclosure index.

1.3.2 Company Characteristics and Extent of Voluntary Disclosure (Specific Objective 2)

Empirical evidence on the relative associations of company characteristics of firms listed on the ASE and the extent of voluntary disclosure gives insights into the operation of voluntary disclosure and also provides indications about the domestic corporate reporting environment and the relative applicability of relevant theoretical frameworks. This analysis is further extended with reference to specific categories of disclosures. This investigation provides more informed analysis of disclosure themes and corporate characteristics which enhances understanding of voluntary disclosure. This objective constitutes the main research analysis which is carried out by econometric techniques.

1.3.3 Perceptions of Voluntary Disclosure (Specific Objective 3)

Perceptions of individuals who are influential in matters of accounting reporting issues in Greece are investigated to provide further insights into the operation of voluntary disclosure. That allows an extension of the conclusions that may be formed from the previous two specific objectives. This specific objective is approached by interview research and builds upon the aforementioned general objectives. From this

standpoint, interviews are intended to expand the specifications of voluntary disclosure behaviour and provide fuller interpretation.

1.4 Research Questions

The three general research objectives, as they have been reported in 1.2, are employed here to form three general research questions.

General Question 1

What are the disclosure theories that may be applicable to an emerging capital market in forming expectations about voluntary disclosure practices by listed companies?

General Question 2

What is the definition of voluntary disclosure in an emerging capital market and how can this influence the design of the research method?

General Question 3

What is the behaviour of voluntary disclosure in an emerging capital market?

The specific objectives of the empirical research, as reported in 1.3, are employed here to form specific empirical research questions.

Empirical Research Questions

The main empirical research questions investigated in this study are the following:

1) What is the extent of voluntary disclosure?

2) Is there a significant association between voluntary disclosure and company characteristics on the basis of expectations derived from prior research and theoretical models?

3) What are the perceptions of market participants to issues related to voluntary disclosure operation and how do these help the understanding of the quantitative results of this study?

The first research question involves developing the voluntary disclosure index for the case of the ASE and also identifying the extent to which the amount of voluntary information is disclosed by listed companies. That also involves an evaluation of overall and categories of voluntary disclosure and it is assessed by exploratory data analysis. The answer to the second empirical research question involves statistical testing and evaluation of factors that influence overall and categories of voluntary

disclosures in Greece. Finally, the third empirical research question is concerned with the examination of voluntary disclosure in relation to perceptions of influential market participants. It builds upon the previous two objectives by revealing further understanding of voluntary disclosure aspects and also by providing fuller interpretation and analysis in issues under examination. It is assessed by interview research.

1.5 Motivation

Emerging capital markets have been suggested as worthy candidates for research studies since differences in the quality and the environment of financial reporting are real and significant and no meaningful generalisations can be made until existing conditions are understood (Wallace, 1987, p.227). Greece is a developed country with an emerging capital market. That tends to provide certain characteristics in the operation of the stock market which raises questions about whether research designs of accounting disclosure are of relevance. Thus, this national study is motivated in order to increase understanding of accounting and corporate reporting in a European emerging capital market. In-depth studies of national accounting incorporating institutional factors are also helpful as building blocks for international comparative analysis and international classification (Gray and Roberts, 1991). This study is a published academic research on voluntary disclosure in the under-researched context of Southern Europe.

Although the ASE has been operating poorly during the last 120 years, in the 1990s it experienced a significant growth. The attractiveness of the market has been enhanced by institutional changes and improved macroeconomic fundamentals. The rapid increase of trading activity has reflected the increased interest of domestic and foreign institutional investors as well as individuals. As a result the level of information disclosed by companies has become a crucial topic for decision making by various users. This study is concerned with voluntary disclosures published by annual reports in 1997. Annual reports were chosen because they are considered to be the most important corporate documents (Parker, 1982). The period of time was chosen to be 1997 because this year was the beginning of period with a considerable

increase of trading volumes and increased modernisation and sophistication of the ASE, which was considered to be the beginning of a new era for the Greek capital market.

While information issues have become particularly important for the ASE, voluntary disclosure has been expected to be of particular interest. That is because voluntary disclosure is more vulnerable to market pressures than mandatory disclosure (Radebaugh and Gray, 1997, p.488). Moreover, it was suggested that listed companies would be highly concerned with accounting disclosure regulations. Preliminary discussion with market participants by the researcher emphasised high levels of compliance with mandatory requirements. That motivated a research study on voluntary disclosure practices in order to contribute to theoretical understanding of the economic factors which influence the extent of voluntary disclosure. These economic factors are corporate-specific characteristics. The operationalisation of market specific variables is motivated by calls for such an attempt in prior literature (e.g. Wallace and Naser, 1995).

Considering particular characteristics of regulatory frameworks in emerging capital markets and the relative impacts that these may have on research designs of accounting disclosure studies, this study was motivated to examine the regulatory characteristics of Greece as they may influence the definition and measurement of voluntary disclosure.

1.6 Summary of Research Methods

This section briefly outlines the main research methods undertaken by this study. The decision of research methods reflects assumptions on ontology, specific epistemological approaches and particular methodologies. Scientific and naturalistic researches have been widely used in accounting research. The scientific approach assumes that reality is objective and concrete, and valid and generalisable conclusions based on reductionism can be dropped (Babbie, 1998, p.97). In contrast, the naturalistic approach assumes that the reality is socially constructed and a

product of human imagination and the complexity of the world cannot be solved by reductionism (Gray, 1999).

Both approaches have been used by this study. The scientific approach is adopted in the structured, prior theoretical based, and hypothetico-deductive part of this study in statistically testing some formulated propositions. The naturalistic approach is adopted in the unstructured, non-prior theoretical-based part of this study which takes the form of exploratory examination of individual events through opinion research. These are further explained in chapter 7. Research methods consist of the following:

1.6.1 Data Collection

This study makes use mainly of primary sources. Opinion research is also applied. Research on primary sources consists of the examination of annual reports published by companies listed on the ASE. Opinion research takes the form of semi-structured interviews with influential market participants. The main research strategies employed are briefly outlined as follows.

The sample consists of companies listed on the ASE in 1997. Traditional unwillingness of Greek companies to provide accounts to non-shareholders obstructed the collection of data. Insistent attempts by the researcher to gather annual reports from the 227 companies listed in 1997 ended up with 116 annual reports. In order to establish homogeneity in the sample, financial companies and the companies which first gained a listing status in 1997 were excluded. This approach is consistent with other research studies (e.g. Owusu-Ansah, 1998). The final sample consists of 87 annual reports.

Interviews were used in order to gain further insights into voluntary disclosure operation. Interviewees were market participants who were in a position to influence disclosure issues in Greece. Twenty-three market participants were finally interviewed. These belong in five professional groups, namely: corporate executives, financial analysts, regulators, bankers, and external auditors.

1.6.2 Construction of the Voluntary Disclosure List

The disclosure index approach (e.g. Cooke, 1989a) is adopted by this study, as discussed in 7.3.1. A specific disclosure list is developed in order to capture voluntary disclosure practices followed by Greek listed companies. This choice reflects particular institutional and regulatory characteristics. A definition of voluntary disclosure for the case of Greece is essential to the selection of relevant voluntary items. The construction of the disclosure list takes into consideration issues relating to: (i) the approach of developing the list, (ii) the extent of voluntary items, (iii) the format of the disclosure list and finally, (iv) the types of voluntary items included. In order to reduce subjectivity, since total elimination is not likely, specific criteria and processes are developed (see 7.3.2). .

1.6.3 Measuring Voluntary Disclosure

On the balance of arguments for and against, an unweighted measurement approach is adopted assuming that voluntary disclosure items have the same value as they refer to an average user. The particular scoring method applied is a dichotomous procedure in that companies are awarded one (1) if they disclose a certain item and zero (0) if they do not disclose it and it is applicable to that company. This approach is similar to that of many relevant studies (e.g. Gray, S, et al., 1995; Meek et al., 1995). If an item is not applicable it is not scored. A meticulous review of the whole annual report provided a better picture of business operations which assists in better specification of relevant items. This approach has been followed by many research studies (e.g. Cooke, 1989a; Gray, S, et al., 1995). Moreover, consideration of items of prior years provided further valuable insights. In order to enhance objectivity and replicability specific criteria and process are developed. Furthermore, definitions on the meanings of information items are demonstrated, common procedures to all companies are followed, and the approach of the expert reader is undertaken (7.3.3.3).

1.6.4 Interview Structure and Process

Semi-structured interviews are undertaken in order to provide opportunities for interviewees to present freely their perceptions. Semi-structured interviews are preferred in order to adapt questions according to the professions and expertise of

interviewees. That also enables the interviewer to discover additional issues not covered by the initial questionnaire. The questionnaire is pre-tested in order to gather more useful face-to-face interviews. Specific steps are followed during and after the interview to eliminate subjectivity and establish consensus between the interviewees and researcher on interviews.

1.6.5 Data Examination and Econometrics

Data are examined by histograms, stem-and-lef plots and Kolmogorov-Smirnov test with Lilliefors significance (K-S). The second empirical research question is tested by univariate and multivariate analysis. Non-parametric tests are applied. Continuous independent variables are tested by Kendall rank correlation coefficient (tau). Categorical independent variables are tested by Mann-Whitney *U* for two-category variables and Kruskal-Wallis *H* for three category-variables. Multivariate analysis takes the form of multiple regression analysis. Rank regression is undertaken by this study. Particular choices in rank regression follow established research in the area of accounting disclosure (e.g. Lang and Lundholm, 1993, 1996; Cooke, 1998). Ten independent variables are tested for association. There are seven continuous variables, namely: corporate size, gearing, profitability, liquidity, marketability, volatility and share yield. There are also three categorical variables, namely: industry, type of report and listing status.

1.7 Contribution to Knowledge

This study contributes to knowledge in the following aspects.

This study provides an understanding of the relative applicability of disclosure theories in a European emerging capital market. Analysis of the institutional characteristics in relation to disclosure provides fruitful insights on the explanatory power of theories. Empirical quantitative results and further insights from interviews allow a critical evaluation and more comprehensive understanding of the relation between disclosure theories and voluntary disclosure in an emerging capital market in the southern Mediterranean. That provides further understanding of the Greek reporting practices and the Greek accounting system.

Meeting the second general objective, this study contributes to clarifying the definition of voluntary disclosure. That is carried out by an analysis of the meaning of this concept and also by an analysis of the meaning adopted by relevant empirical studies. Differential definition of this concept raises concerns of comparability between studies. It also provides some elements of subjectivity. A procedure is developed to define voluntary disclosure in the case of Greece, thus contributing to the literature by building upon the assertion that '*if concepts are to serve their functions they have to be clear, precise and agreed upon*' (Nachmias and Nachmias, 1996, p.28). This procedure may be followed by other studies in other research settings.

Finally meeting the third general objective, contribution is provided in terms of empirical evidence of the association of corporate-specific variables and extent of voluntary disclosure. Evidence on market related variables meets the calls for such an attempt in disclosure studies (e.g. Wallace and Naser, 1995). Evidence on the associations of independent variables and categories of voluntary disclosure contributes to further understanding of the operation of voluntary disclosure and allows an evaluation of theoretical expectations. Evidence from relative performance measures raises some considerations about measures of performance, signalling implications and voluntary disclosure operation. Interview results contribute by enlightening further voluntary disclosure operation in relation to relevant issues such as credibility of disclosures, private disclosure and information costs.

1.8 Limitations

The main limitations[1] of the empirical study are stated as follows:

- The sample is not exactly random and it is skewed to the largest companies.
- The scoring process is always associated with some elements of subjectivity. Although certain criteria and procedures are developed to decrease subjectivity, total elimination is not likely.

[1] For further discussion see 11.6.

- There is an indirect assumption that the more the disclosure the better the end-users become.
- Annual reports examined in this study are not the only medium in which companies disclose information. Moreover, the examination of the disclosure practices takes place at the beginning of a new era for the stock exchange and so results may be time-specific.
- The intrinsic values of voluntary disclosure, such as correctness and materiality, are not examined because that is not logically feasible. That is partially approached by the interview study.
- Finally, limitations related to opinion research are also present in this study.

1.9 Organisation of the Thesis

The thesis, including this introductory chapter, is organised in 11 chapters which follow the general objectives of this study, as viewed in Table 1-1.

Table 1-1: General Objectives and General Questions

General Objectives (GO)	General Questions (GQ)	Chapters
GO_1	GQ_1	2, 3, 9, 10 & 11
GO_2	GQ_2	4, 5, 10 & 11
GO_3	GQ_3	4, 6, 7, 8, 9, 10 & 11

The third general objective (GO_3) generates three specific questions which operationalised by three main empirical questions as seen in Table 1-2.

Table 1-2: Specific Objectives and Empirical Research Questions

Specific Objectives (SO)	Empirical Questions (EQ)	Chapters
SO_1	EQ_1	8
SO_2	EQ_2	9
SO_3	EQ_3	10

Specifically, the 11 chapters of this thesis are concerned with areas outlined as follows:

Chapter 1: Is an introductory outline of the thesis. It introduces the general objectives of this study and transforms them to specific objectives and research questions. Empirical questions are generated by this procedure. The motivation for this thesis is also presented. A summary of the research methods applied is provided.

Contributions and limitations are discussed briefly. Finally, the organisation of the thesis is reported.

Chapter 2: Presents the theoretical and empirical background of this research. Disclosure theories are approached in relation to their explanatory grounds to voluntary disclosure operation. These theoretical frameworks are further discussed in relation to their applicability to emerging capital markets. Empirical studies related to the objectives of this study are also discussed. Particular consideration is given to national studies of developed and emerging capital markets.

Chapter 3: Introduces Greece and it describes the main institutional characteristics. These refer to political, legal, economic, and financial systems, and also to the accounting profession, taxation, management and societal values as they influence the extent of disclosure. An analysis of these factors aligns this chapter with the theoretical frameworks that explain disclosure.

Chapter 4: Outlines the state of the regulatory system and the main requirements for accounting disclosure, as contained within different sources of regulations and they were effective for the data of this study (1997). This chapter is used as a background to discuss the nature and definition of voluntary disclosure (chapter 5) and to operationalise it in the case of Greece (chapter 7).

Chapter 5: Discusses issues related to the nature and definition of voluntary disclosure. Contextual definitions are attempted. Regulatory issues influencing the understanding of voluntary disclosure are outlined. Empirical attempts to define voluntariness are analysed and critically evaluated. Insights provided from these sections enable the development of a process to define voluntariness in the case of Greece. Conceptual and operational definitions are discussed.

Chapter 6: Reports on the development of independent variables and the formulation of testable hypotheses. Expectations on the relevant association with the extent of voluntary disclosure are also presented.

Chapter 7: Presents the research methods followed by this study. Procedures to obtain a sample of listed companies and opinions of influential individuals as units for analysis are stated. Research instruments and procedures with particular reference to the construction of the disclosure list, the measuring process and the interview structure and process are explained. The operationalisation of the specific measures of variables tested is reported. Finally, the econometrics used in testing the formulated hypotheses are outlined.

Chapter 8: Presents the results of the measurement process. These are analysed in terms of the extent and categories of voluntary disclosures. Conclusions are drawn.

Chapter 9: Presents the results of univariate and multivariate regression analysis and provides interpretation and analysis. Empirical findings of current year and relative models are discussed, analysed and compared. Associations are reported according to overall disclosure and categories of voluntary disclosure, followed by analysis and interpretation.

Chapter 10: Perceptions of influential individuals on voluntary disclosure issues are presented and analysed. Matters related to influences, costs and benefits, use and credibility of voluntary disclosure are presented. Moreover, private disclosure and the nature of disclosures are outlined in relation to voluntary disclosure operation. Interview results are also discussed with reference to the quantitative results of this study. Interviews allow a better understanding of theories as applied to the empirical study and provide insights for better designs of future research.

Chapter 11: Summarises objectives, research questions and research methods, the main research findings, and reports the main implications, contributions and limitations of this study. Finally, suggestions for further research are discussed.

CHAPTER 2

2. Prior Literature: Theoretical Framework and Empirical Bases

2.1 Introduction

This chapter responds to the first general objective of this study (1.2.1). It explores the theoretical framework and provides explanatory insights to voluntary disclosure issues. It also presents a review of empirical studies, which will assist the location of Greece in terms of voluntary disclosure practices. That provides opportunities for the formulation of testable hypothesis, anticipation of expectations and also interpretation of empirical findings.

The theoretical framework of voluntary disclosure is quite nebulous. There are many theories that explain voluntary disclosure practices. These theories rely on different assumptions and they may provide different explanations to similar disclosure observations. Thus, this chapter synthesises the different theoretical explanations of voluntary disclosure operation. Moreover, the considerable number of empirical studies in accounting disclosure makes the empirical literature review a task difficult to manage. Therefore, this chapter provides an abridged review of relative trends in the literature and focuses on studies relevant to this thesis.

This chapter is organised as follows: The following section (2.2) outlines the main role and determinants of accounting information within a financial market. Theories of accounting information are discussed in 2.3 in relation to the debate on regulating or relying on the free market to determine levels of accounting information. Theories of voluntary disclosure are discussed in 2.4. Characteristics of emerging markets are discussed in 2.5 in order to provide some insights into the applicability of theories to these contexts. Based on the above sections a discussion of the relative applicability of voluntary disclosure theories to emerging capital markets is critically evaluated in 2.6. Empirical studies are discussed in 2.7 with particular reference to overall disclosure studies (2.8). Finally conclusions are summarised in 2.9.

2.2 Accounting Information: Role and Determinants

Accounting information serves two fundamental functions[2]. These are the stewardship and decision making functions. While the former refers to managerial effectiveness and is concerned with past activities the latter implies more than information on stewardship and refers mainly to future-looking information (Kam, 1990, p.48). It has been argued that accounting information has an impact on asset prices, firm production and information efficiency (Gibbins et al., 1992, p.32). Information efficiency leads to more efficient investment decisions (Fishman and Hagerty, 1989) which in turn influences economic growth (Lee, 1987), level of employment and thus impacts on the standard of living (Ndubizu, 1992). It has been also related to resource allocation (Larson and Kenny, 1995). Other implications suggested in the literature include issues related to labour markets (Spence, 1973), managerial markets and other factor markets (Gibbins et al., 1992, p.38).

The extent of accounting information is determined by regulation and by the forces of demand and supply. The supply of accounting information is provided by the management following regulation and market pressures. Quantity and quality of information are decided by the management based on perceived costs and benefits (Radebaugh and Gray, 1997, p.213). Although the supply of accounting information can be directly assessed and quantified, that may not be easy for demand for accounting information which is determined by the users of accounting information. Although the questions of who are the users and what are their needs are quite a thorny topic, IASC (1997) has defined seven groups of primary users to be investors, employees, lenders, suppliers, customers, government and the general public[3]. Thus, the demand for information is generated by different, and potentially conflicting groups who may be interested in a particular spectrum of accounting information.

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[2] These are defined in the objectives of financial statements as stated by regulatory bodies (e.g. ASB, FASB, IASC).

[3] ASB (1991) uses the same definition which is broadly similar to the definition adopted by ASSC (1975) in *The Corporate Report*. That seems to be different from FASB's (1978) *Concepts Statement No1* (as cited in Kam, 1990, p.48) where only investors and creditors are named and that of ICAS (1988) *Making Corporate Reports Valuable* where the main users that have a direct right to information are equity investors, loan creditors, employees and business contact group.

This assumption, that accounting information refers to many group of users is crucial in decisions on research methods (see 7.3.3.1).

To sum up, accounting information serves a dual purpose which is the stewardship and decision-making functions. It has many implications in capital markets (e.g. fluctuations in share price, liquidity, cost and risk of capital) and also for economy related issues. While accounting information was argued to be of particular importance in the financial context, an important issue raised here is the mechanism of providing adequate accounting information to the market. This is briefly discussed in 2.3.

2.3 Theories of Accounting Information: Free Market Versus Regulation

There has been a long debate in the literature on whether accounting information should be formulated primarily by authoritative bodies or left to the free market. Proponents of the free market approach support the view that there are strong incentives in the market for reliable and adequate reporting to users on a voluntary basis (Benston, 1985). Proponents of the regulatory approach use mainly a public interest argument in terms that market failures or the need to achieve social goods dictate regulation of accounting information (Belkaoui, 1992, p.85). The basic chains of reasoning of these approaches are discussed as follows.

2.3.1 Free Market Theory

According to the free-market theory accounting information is an economic good, subject to the forces of supply and demand. The market is an ideal mechanism that results in optimal[4] information at an optimal price. An equilibrium can therefore be found for accounting information. Thus, free market forces can be employed to determine what type of accounting data to provide and also the necessary rules that underlie them (Kam, 1990, p.550). Benston (1985) stresses the considerable costs associated with regulation which are generated from stakeholders who do not pay directly for these information costs (e.g. government).

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[4] Henceforth optimality refers to Pareto-optimality.

It is particularly emphasised that anything that prevents prices from mirroring the actual conditions of market forces interferes with the transmission of reliable information. Information should give both incentives and ability for receivers to act on it because '*...the beauty of the market system is that the price which brings the information also provides an incentive to act on it...*' (Friedman and Friedman, 1980, p.37). Regulators are unable to map out the optimal level of regulation and that leads to regulation overload which in turn causes problems for market operation. Empirical results provided further support on the aforementioned arguments (Stigler, 1964, 1971; Benston, 1973[5]). Moreover, studies show that voluntary disclosure is increased when companies enter competitive markets (e.g. Choi, 1973b; Meek and Gray, 1989) which provide some evidence that fair markets have the means to generate adequate information without regulation. Agency theory is also employed to explain why incentives exist for reliable and voluntary reporting (2.4.2).

It has been claimed that the majority of companies do not need regulation to provide reliable information since regulation would have no effect on correcting deficiencies for companies that provide misleading information (Jones, 1971). In an unregulated accounting information system the outcomes would be a similar level of information adequacy and also higher flexibility of the accounting information. However, there has been a wide criticism of this theory. Critics claim that there are many defects in markets for accounting information which results in the failure of this theory. These are briefly discussed in 2.3.2.

2.3.2 Regulatory Theory

The regulatory theory could be viewed as public interest, capture (interest groups) and life-cycle approaches. The capture approach claims that regulation is an outcome of interest groups in order to maximise their own welfare (Walker, 1987). That has two versions (political and economic) which, however, have been severely criticised (e.g. Watts and Zimmerman, 1986, p.238). A similar stance of capture approach is

[5] However, this study has been widely criticised in terms of biased sample (Seligman, 1983) and information researched (Ockabol and Tinker, 1993).

taken by life-cycle approach (Stigler, 1971). Therefore, the public interest approach, which is most frequently cited in the literature, is further discussed.

Supporters of the regulatory approach claim that the financial market is neither efficient nor perfectly competitive and the provided corporate information cannot be adequate. Hence, the free market approach is both unrealistic and unworkable because the market mechanism will not be able to achieve a socially optimal equilibrium price for accounting information (Kam, 1990, p.551). Some of the reasons are the following:

Accounting information is a public good in terms that once the information is released it is available to everyone (Gonedes and Dopuch, 1974). This phenomenon, known as the *'free rider'* problem, is an externality that leads to less than socially desirable levels of accounting information and therefore regulation is the only way to ensure efficiency of the market (ibid.). The *'moral hazard'* and *'adverse selection'* problems resulting from information asymmetry are corrected only by regulation. Furthermore, other arguments such as: existence of naive investors and functional fixation[6], misleading accounting numbers, diversity of procedures and lack of objectivity have been also cited in the literature (Leftwich, 1980; Coffee, 1984). Moreover, even in the case of an ideal information market, a regulatory board would be necessary since users lack consensus on what they want and information providers lack consensus on what they provide (Kam, 1990, p.552).

In further support, Lev (1988) claims that opportunity inequality in capital markets leads to high transaction costs, thin markets, decreased returns and increased cost of capital and is mitigated only by adequate regulation. Shaffer (1995) also suggests regulation to be particularly necessary for issues related to higher disclosure. Ross (1979), although supporting the view that market forces lead to adequate disclosure in absence of regulation, recognises that regulation may provide alternative and cheaper mechanisms for policing mechanisms than the private sector would provide

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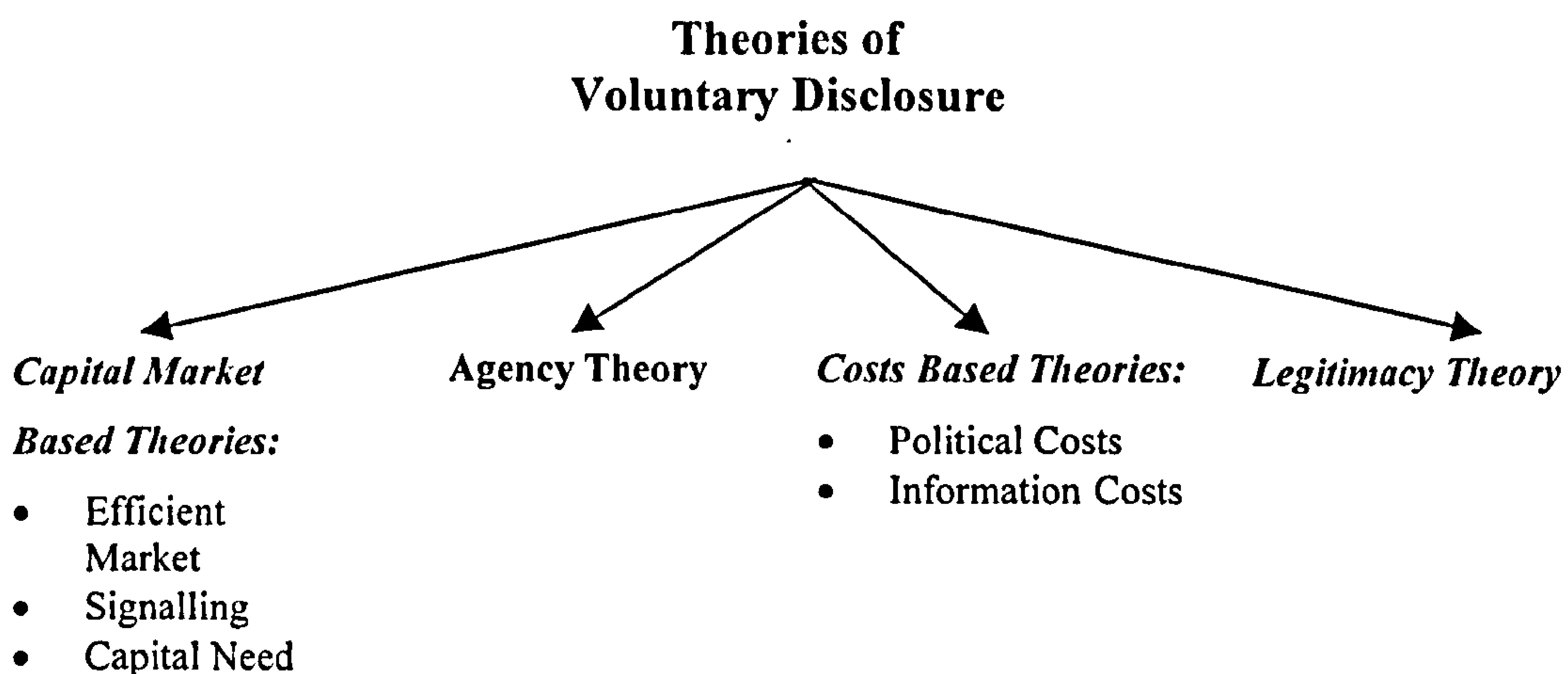
[6] Under certain conditions investors may be unable to change their decision-making process in response to a change in the underlying accounting process.

independently. The regulatory theory does not lack criticism. Watts and Zimmerman (1986) challenge the public nature of information arguing that the use of information by one investor reduces opportunities for others to derive the same benefit. Leftwich (1980) challenges externalities outcomes by arguing that market failure theories do not identify an optimal output and thus are incomplete for policy implications. Finally, Cooper and Keim (1983) argue that the market is capable of providing devices to deal with information asymmetry (e.g. licensing of auditors). Moreover, a substantial number of criticisms would be diminished in a semi-strong form of market efficiency.

2.4 Theories of Voluntary Disclosure

The main purpose of this section is to discuss the theories that provide explanatory grounds for voluntary disclosure. These theories belong predominantly in the economics of information literature and they are consistent with the objectives of this study. Theories from organisational, institutional and behavioural literature also provide insights into voluntary disclosure. However, these theories are not analysed in this study since they are not related to the research questions. Identified theories may be categorised as capital market based, agency, costs based and legitimacy. While the first group of theories is mainly concerned with the relationship between firms and investors, the second refers exclusively to the agency model. Costs based theories are concerned with the reduction of cost burdens. Finally, legitimacy is examined as an insightful theory of voluntary disclosure. These theories are presented diagrammatically in Figure 2-1.

Figure 2-1: Theories of Voluntary Disclosure



The theories are explained as follows.

2.4.1 Capital Market Based Theories

This section identifies three theories, namely efficient market, signalling and capital need which provide explanations of and incentives for companies that provide voluntary disclosure. These theories are seen in the context of the financial market where information plays a major role in the formation of capital, in investment decisions and also in the allocation of resources within an economy. These theories are briefly outlined in the following three sections.

2.4.1.1 Efficient Market Theory

Empirical evidence on the incremental value of accounting information included in annual reports is less than conclusive[7]. While market efficiency represents the way financial information is absorbed by the market, financial information is a crucial determinant for the level of market efficiency. Keane (1993) suggests that market efficiency should be used to describe several aspects of a securities market, namely institutional infrastructure, security transaction process, financial information system and pricing efficiency.

The institutional infrastructure is efficient if i) local culture and political environment are sympathetic to a market economy, ii) a sophisticated and well-informed investment analyst profession exists, iii) there are no significant capital inflow-outflow restrictions, iv) an effective regulatory framework and investor protection system is in place, v) market participants generally have realistic expectations about risks and returns from investment, vi) insider dealing is systematically policed, vii) taxation is consistent with accepted international practice and viii) the stock price behaviour is rigorously and regularly researched and reported (Keane, 1993). Transactional efficiency refers to transactional process (e.g. technology) and to transaction costs.

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[7] While Ball and Brown (1968) and Rippington and Taffler (1995) found annual reports to be of little information value to the market, Beaver (1968) and Cready and Mynatt (1991) support the incremental value of annual reports.

The market is informationally efficient if i) a well regulated accounting and auditing profession exists which gives credibility to corporate reports, ii) information needs of the market are distinguished and iii) information is disseminated widely and speedily (ibid.). Pricing efficiency refers to information sets that are incorporated in securities prices. Fama (1970) defines three forms of market efficiency. The weak form implies that a security's price at a particular time reflects the information contained in its sequence of past prices. The semi-strong form asserts that the price of a security fully reflects all publicly available information. Finally, the strong form suggests that the price of a security fully reflects all information that is not publicly available, like inside information. Therefore, in the semi-strong and strong forms annual reports have no value for investment decisions.

Extensive empirical studies on market efficiency have produced mixed results[8], which differ across countries. The aforementioned factors in market efficiency will be further discussed in relation to Greek institutional characteristics and their influence on voluntary disclosure (chapter 3).

2.4.1.2 Signalling Theory

Signalling theory explains issues related to information asymmetries in markets. Akerlof (1970) initially addressed the problems related to buyers who are imperfectly informed about the quality of products ('market for lemons'). Market uncertainty may cause sellers of superior products to withdraw their products from the market because their competitive advantage (quality) is not recognised or alternatively they may disclose this information to the market (Spence, 1976). Signalling is that process used by sellers of superior products use to distinguish themselves in the market[9]. Spence (1973) describes signalling by his example of a high productivity worker who wishes to signal himself to his employer to receive benefits. Since all workers may do that, a more reliable productivity signal may be the education of workers.

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[8] There are studies supporting the weak form (e.g. Kendall, 1953, Fama, 1965; Dickinson and Muragu, 1994). There is also considerable evidence rejecting the hypothesis of efficiency (e.g. Cunningham, 1973; Hakkio, 1981, Alexakis, 1992).

[9] Riley (1975) has used the term 'screening' alternatively to refer to the same process.

Therefore, the signalling process is not free of costs which are positively related to the quality of products. However, the quality of products is justified only after the transaction which impacts on the perceived validity of the signal in the future. Sellers of high quality products offer various guarantees in order to strengthen their signals (Beaver, 1989). This framework is used in capital markets[10] where optimality of investment decisions becomes particularly difficult under information asymmetries. Thus, management in possession of information that increases corporate value (*'good news'*) may have incentives to disclose this information voluntarily to the market (Penman; 1980; Milgrom, 1981; Verrecchia, 1983; Lev and Penman, 1990).

Alternatively, management in possession of information that decreases corporate value (*'bad news'*) may have incentives to be silent. However, investors screen non-disclosers and may evaluate non-disclosure as an adverse signal within market uncertainty (Milgrom, 1981; Verrecchia, 1983). Thus, companies become better off by voluntarily disclosing any information to the market, even *'bad news'*, than by being silent. This situation leads to full disclosure (Patell, 1976; Trueman, 1986). However, there are many reasons companies may not wish to disclose information, even *'good news'* (Teoh and Hwang, 1991). Skinner (1994) argues that firms are very concerned with disclosing unfavourable information to prevent negative surprises on the share price and legal action.

Benefits of favourable information on stock prices may lead companies to disclose unreliable information (Coffee, 1984). However, providing misleading information is an illegal action, which triggers penalties from stock exchange commissions (Ross, 1979). The benefit of misleading disclosure policy is short-term (Bird and Locke, 1981) since recipients would be disinclined to trust future information and that would lead to stock price decline. Moreover, false information would also turn to decline

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[10] Cooper and Keim (1983) suggested that the applicability of signalling theory to the securities market might not be so straightforward. Securities are homogeneous products and the knowledge about one share is directly related to all shares which is not the case for other products. However, if the market regards sellers' signals to be false that would undervalue all the products regardless of homogeneity. However, the degree of undervaluation may be related to the degree of homogeneity.

the demand of future signals (Hughes, 1986). Empirical evidence that voluntary disclosure changes stock prices (Patell 1976; Penman, 1980; Waymire, 1984; Ajinkya and Gift, 1984; Jennings, 1987; Ponwall and Waymire 1989; Healy et al., 1999) suggests that signals are perceived as credible by the market.

There is a considerable volume of studies that have modelled signalling effects or they have provided empirical evidence on the direction and anticipation of signals (Grossman, 1981; Milgrom, 1981; Jovanovic, 1982; Hughes, 1986; Lev and Penman, 1990; Teoh and Hwang, 1991; Gigler, 1994; Skinner, 1994).

2.4.1.3 Capital Need Theory

Yet another explanation of voluntary disclosure is found in the pressures of the capital market in relation to the reduction of risk and cost of capital. Many studies (e.g. Choi, 1973a; Firth, 1980) report on the increased levels of voluntary information for companies that seek finance more often. Moreover, the degree of voluntary information tends to be increased around the time of raising capital. Choi and Mueller (1992, p.312) emphasise the practice of increased disclosure when companies believe that it would lower the cost of capital. Increased disclosure is viewed favourably by financial analysts. Horngren (1957) reports on the material incentives for companies which keep financial analysts well informed.

There is a considerable number of research papers that report on the negative association between disclosure and both risk and cost of capital. Copeland and Galai (1983), Glosten and Milgrom (1985), Diamond and Verrecchia (1991) and Healy et al. (1999) suggest greater disclosure enhances stock market liquidity, which reduces the cost of equity capital either through reduced transaction costs or by increased demand for a firm's securities. It is also claimed that by disclosing private information firms can reduce the adverse selection component and also their cost of equity capital (Amihud and Mendelson, 1986; Botosan, 1997). However, Spero (1979) argues that not all information has a negative association with the cost of capital. There is information which is sensitive and information that plays no role in the determination of the cost of capital. Moreover, there are some types of

information which may even increase the cost of capital. This is information that increases market uncertainty.

There is also empirical evidence (Barry and Brown, 1985; Coles et al., 1995; Clarkson et al., 1996) that higher levels of disclosure reduce estimation risk in the estimates of investors. That reduces the cost of capital in such terms that if the estimation risk cannot be diversified investors require higher compensation. That argument is also extended to the cost of debt capital since a policy of enhanced disclosures reduces the perceptions of lenders and underwriters of default risk for the disclosing firm, reducing its cost of debt (Sengupta, 1998). Overall, since companies compete in the market these may be forces driving for enhanced voluntary disclosure.

2.4.2 Agency Theory

An agency relationship is defined as '*...a contract under which one or two persons (principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent*' (Jensen and Meckling, 1976). The cornerstone of agency theory is the assumption that interests of principals and agents differ since these individuals behave rationally, in order to maximise their expected utilities (Watts 1979; Hill and Jones, 1992). However, in effect the firm is viewed as a team whose members act from self-interest but realise that their destinies depend on the survival of the team in its competition with other teams (Fama, 1980). The agency outcomes are also extended between managers and debt-holders (Jensen and Meckling, 1976). Moreover, agency relationships may be viewed in everyday professional relationships.

The agency relationship is not new[11]. Yamey (1962; cited in Watts, 1979) suggests that accounting began as an agent relationship. However, the role of the agent is regarded as being more active within the framework of the agency theory compared

[11] '...the purpose of Greek and Roman accounting was to disclose any loss due to dishonesty or negligence of subordinates' (De Ste Croix, 1956; cited in Watts, 1979).

with the agent's role proposed by the classical theories. That is strongly related with the changing function of stewardship[12] over time (Chen, 1975).

There are two fundamental characteristics in agency analysis, namely: the separation of ownership from control which allows managers to take relatively autonomous decisions about the welfare of owners and the view that the welfare of owners may be significantly different from the welfare of the managers. These two characteristics are viewed through information asymmetries which cause two main implications. First, the moral hazard is caused because principals cannot watch and evaluate the actual actions of the agents but only the outcome of these actions. Second, the adverse selection is derived through the principal's ignorance about the optimality of management decisions. These implications generate some costs, known as agency costs, and they are defined to be (Jensen and Meckling, 1976): i) monitoring expenditures by the principal (costs of measuring agent's behaviour and compensation policies), ii) bonding expenditures by the agent (guarantees that agent will not take certain actions to harm the principal's interests), and iii) the residual loss (difference in wealth from the actions principal would take himself).

Incentives to managers, monitoring procedures, bonding and compensation plans, which are internal in nature, are proposed as means of eliminating adverse agency consequences (Jensen and Meckling, 1976). Fama and Jensen (1983a, 1983b) proposed some market-related safety devices, known as market discipline, which enforce harmonisation of differential interests. These measures are: the market for managerial skills, the market for corporate control and the market for corporate securities.

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[12] According to Chen stewardship is associated with the Christian values (...resources were created by God who gave them to all men in common, ...man is considered the steward of God). The notion of stewardship has changed in order to implement the new economic conditions of feudalism, capitalism and post-capitalism eras.

Management reputation, in terms of efficiency and honesty, is reflected in the labour market (Fama, 1980). The labour market, in the long run, rewards managers that have achieved high performance and punishes dishonest and unsuccessful managers. Thus, managers have incentives to be sound stewards and so to use financial information for the benefit of the company (Coughlan and Schmidt, 1985). However, Barnea et al. (1981) suggest that market inefficiencies weaken the ability of the market for managerial services to ensure congruence of principal-agent interests[13].

The market of corporate control may be another device that enforces managers to emphasise the interests of shareholders. Inefficiently managed companies become targets for take-over bids. Relatively low share-prices are considered as sound investing opportunities for more efficient management. Therefore, the threat of a hostile take-over may keep managers in a line with the maximisation of shareholders wealth (Coughlan and Schmidt, 1985). However, there are many reasons why this discipline rule may not hold. First, low performance may be a result of a variety of factors (e.g. industry growth, exchange rates, and adverse macroeconomic effects). Second, efficiently managed companies do become targets for hostile bids and also the perception that low performance companies become take-over targets is not always supported (Singh, 1975). Additionally, even take-overs may be prompted by opportunistic reasons.

The market of corporate securities was also proposed to keep managers closer to the stewardship function. Stock prices reflect managerial effectiveness and also companies seeking finance from securities market are rewarded (or penalised) according to perceived managerial effectiveness (Benston, 1982). The aforementioned proposition assumes the existence of an efficient capital market, which may not be the case in emerging markets. Moreover, even in the existence of an efficient market in the strong form managers may not regard the maximisation of shareholder wealth as their primary task (Amershi and Sunder, 1987).

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[13] They suggested a way of mitigating that problem could be management retirement benefits to be made as a function of their ex-post marginal products.

Criticism of the Agency Model

Agency theory is accompanied by a set of criticisms. The criticism is focused on the main assumptions of agency theory, and issues related to ontology, epistemology and research procedures (Amstrong, 1991). Puxty (1985) challenged agency assumptions on human nature. Rational utility maximisers would never undertake actions of bravery, altruism, and offering, which are parts of social reality. Furthermore, agency theory ignores institutional background (Tinker et al., 1985) and oversimplifies complex business relations (Ogden, 1993).

Tinker et al. (1985) also criticise the tenuous connection between informational efficiency and economic efficiency, which is assumed by agency theory. Tinker and Ockabol (1991) argue that agency theory makes no distinction between value and price and thus is theoretically incapable of dealing with monitoring consequences. Christenson (1983) suggests that agency debate is concerned with at first with the accounting entities and at second with issues associated with the relations between managers, shareholders, accountants, debtholders. He argues that agency framework is more relevant to the last. Finally, Whittington (1987) challenges the broader positive reasoning of agency theory. He argues that this model is not free of bias mainly associated with the views of researchers and also derives normative implications, as Watts and Zimmerman (1986), based on their empirical study, suggested no regulation.

Implications of Agency Theory for Voluntary Disclosure

Agents may choose accounting methods that maximise their wealth at the expense of principals (Hagerman and Zmijewski, 1979; and Zmijewski and Hagerman, 1981). According to agency theory, the main purpose of financial information is to monitor the efficiency of agents and it is a form of minimising the agency costs. Therefore, accounts are used as a measure of the agent's performance. Accounting data are used as an efficiency discipline device and also as a basis that managers are compensated for their success to meet business challenges (see 2.4.2).

That has many implications for the regulatory scope and purpose of financial information. Voluntary disclosure is used as a means of reducing the unfavourable

effects of moral hazard and adverse selection implications, and so reducing agency costs. Thus, management has sound incentives to provide excessive levels of voluntary disclosure to reduce agency costs.

2.4.3 Costs Based Theories

The aim of this section is to discuss briefly the frameworks that explain voluntary disclosure in terms of cost related factors. Those discussed here are political costs and information costs.

2.4.3.1 Political Costs

Political cost theory may provide another theoretical framework that explains voluntary disclosure. It has been suggested that various economic factors give rise to political costs which influence the management on the selection of the adequate accounting policy (Watts and Zimmerman, 1978; Hagerman and Zmijewski, 1979; and Zmijewski and Hagerman, 1981). It has also been argued that, in order to eliminate the potential for government interference, managers select accounting policies and lobby for accounting standards that reduce political costs (Rahman and Scapens, 1988).

Political costs can be experienced, at the extreme, in terms of nationalisation or expropriation; more realistically, they may be observed in the imposition of price controls, enhanced quality standards, fiscal penalties and a general increase in governmental control over operations. Such activity may have a significant cost for those listed enterprises that are the largest entities in the countries, especially in emerging markets where their economic role is particularly significant.

Epstein et al. (1976) emphasise the enforceable role of regulatory bodies on voluntary information in terms of a forthcoming potential regulation. Therefore, companies may wish to develop procedures that eliminate any potential for further governmental interference and that may be particularly true for companies more vulnerable to political attacks. Voluntary disclosure may be one of these procedures (Lim and McKinnon, 1993).

However, there is no direct relation between political costs and the level of voluntary disclosure. The theory is not specific over the sign of political cost proxies and levels of voluntary disclosure. Many studies supported a positive relationship between political costs and levels of voluntary disclosure (Firth, 1979a; Cooke, 1989b; Raffournier, 1995) but that has been critically challenged by Owusu-Ansah (1997). Although there is a preference in the literature for a positive association between political costs and voluntary disclosure, which is taken by this study, this debate is still open.

2.4.3.2 Information Costs

While the framework of information costs cannot be considered as a separate theory, it does provide conceptual and methodological tools to enlighten the disclosure process. In deciding whether to make voluntary disclosures corporations weigh the costs and benefits involved and disclose when the benefits exceed the costs of disclosure (Gray et al., 1990). Costs of disclosure are classified into direct and indirect, including those resulting from the impact of disclosures on company decisions and activities (Lev, 1992). Direct costs include costs of gathering, processing, developing, presenting and auditing. The determination of indirect costs is an especially complicated process. Proprietary costs, particularly the costs of competitive disadvantage, belong to this category. Litigation costs are also indirect costs that arise from insufficient or misleading disclosures and in general decrease with the extent of disclosure (Elliott and Jacobson, 1994).

Overall, a negative association between information costs and voluntary disclosure is suggested. This theoretical proposition should be related to sophistication of cost-benefit analysis, managerial attitudes and market specific characteristics. Information costs have been modelled by many studies with various results (Verrecchia, 1983; Dye, 1985; Darrough and Stoughton, 1990; Wagenhofer, 1990 and Feltham and Xie, 1992).

2.4.4 Legitimacy Theory

Legitimacy has come to stress how corporate management will react to community expectations (Tilt, 1994). Legitimacy theory is based upon the notion that business operates in society via a social contract where it agrees to perform various socially

desired actions in return for approval of its objectives, other rewards and its ultimate survival (Guthrie and Parker, 1989). In a dynamic society, neither the sources of institutional power nor the needs for its services are permanent. Therefore, an institution must constantly meet the twin tests of legitimacy and relevance by demonstrating that society requires its services and that the groups benefiting from its rewards have the approval of society (Shocker and Sethi, 1974, p.67).

Legitimacy[14] emphasises that stakeholders within the community deliberate on those activities which are acceptable and companies are expected to carry out activities within the boundaries of community acceptability (Patten, 1992). Thus, business tends to discharge some part of accountability obligations to the community through disclosure since corporate citizenship may be partially served by accounting disclosure (Elliott and Jacobson, 1994).

Abbott and Monsen (1979) claim that stockholders have a vested interest in the stability and legitimacy of the entrepreneurial institution and its autonomy from state control. Being aware of the criticisms that have been made of the corporation reading its progressive views in the annual report can enhance confidence of the politically savvy shareholder in management policies. Therefore, managerial legitimacy is an outcome of pressures towards socially desirable performance. Moreover, because legitimacy is a function of the public policy process, it can be argued that the greater the likelihood of adverse shifts in public policy, the greater the need to attempt to influence the process through disclosure (Patten, 1992).

Overall, legitimacy theory implies that, given a growth in community awareness and concern, firms will take measures to ensure their activities and performance are acceptable by the community. Voluntary disclosure in the annual report may therefore be used to reinforce the community's perception of responsiveness of

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[14] Legitimacy assumes that corporations have a propensity to be socially responsible and to care about the welfare of the society which is a reason companies undertake costly actions that are enviable by the society. That is in contrast with the laissez-faire approach where management is uninterested in social welfare and also with the Neo-Liberal approach where social activities indicate managerial failure for higher profits (Friedman, 1982, p.133).

management to specific social responsibility issues (Patten, 1992; Wilmshurst and Frost, 2000).

2.4.5 Applicability of Theory in Categories of Voluntary Disclosure

Theories of voluntary disclosure have been discussed in 2.4. However, it seems there is no single theory to provide an adequate explanation of voluntary disclosure since every theory, based on specific assumptions, explains voluntary disclosure through a particular perspective. Some of the theories (e.g. agency theory) have been widely debated in the literature overall including issues on accounting disclosure. Some of the criticism may be related to the basic assumptions of these theories. In general, the stronger the assumptions made, the more potential exists for criticism. Therefore, while agency, signalling, political costs and capital need theories share to a greater or lesser extent similar assumptions (e.g. separation of ownership and control, information asymmetries, rationality and wealth maximising behaviour) criticism may be focused on these assumptions and the explanation of voluntary disclosure based on them. Legitimacy theory, although it does not explicitly reject these assumptions, is based on different types of assumptions (e.g. social consciousness of companies). Finally, information costs theory is probably the most assumption-free theory since it probably assumes only rationality of disclosure decisions. Moreover, when these theories are applied to emerging markets there may exist some further challenges (see discussion in 2.6).

While the discussion of the theories of voluntary disclosure provides an understanding about the various reasons why companies may disclose differential levels of overall voluntary disclosure, considering the objectives of this study (1.2), a discussion about the theoretical expectations relating to different categories of voluntary disclosure becomes of particular importance. What appear to be different assumptions of theories and different predictions for the direction of disclosure may become more consistent when these are related to types of disclosure with some homogeneous nature within the specified type. These types of disclosure therefore can be linked with a potential desirability for and demand by specific groups of users. Thus, corporate policy on disclosure could be related with specific corporate objectives that management aims to meet in disclosing more or less in separate types

of disclosures. That aims to relate to a potential for a larger evaluation of theories and to emphasise the different strengths of theories in explaining different types of voluntary disclosure. That will also be relevant to institutional settings and it discussed further in the context of Greece (3.11).

There is no complete theoretical framework to provide adequate guidance on the relative reasons companies may disclose different levels of information in different categories, where these categories may emerge. The literature has favoured two types of categorisation, namely categorisation according to location (e.g. balance sheet etc; Cooke, 1989a) and according to information content (Gray, S, et al., 1995; Meek et al., 1995). This study follows the later approach since theories could be more easily related to information content rather than location (additional reasons are explained in 7.3.2.3). Thus, following Gray, S, et al. (1995) and Meek et al (1995), a set of theoretical frameworks is evaluated on the basis of three categories of voluntary disclosure, namely corporate environment, social responsibility and financial information.

Corporate environment information has strategic elements and may be of interest to a very broad set of users of accounts. Therefore, many theories may provide an explanation of this category. Agency theory may view this type of disclosure as a function of minimising information asymmetries between managers and shareholders to reduce agency costs. Signalling theory may explain this type of disclosure by reference to a good news or bad news scenario. Thus, management may wish to stress the reasons that lead to a satisfactory performance or may wish to explain factors that affect a negative performance of the company. Yet another explanation of corporate environment information could be found in the pressures of the capital market in relation to the reduction of risk and cost of capital. Increased demands for corporate information from the investment community may affect positively the extent of the corporate environment category. Political costs theory may relate corporate environment information to corporate procedures that eliminate any potential for governmental interference. Politically sensitive companies may wish to disclose information related to their environment and operations and they may wish

to make public their point of view on the influential activity of the state. Information costs may be relevant. Companies that confront lower direct and/or indirect costs may be in a position to disclose higher levels of corporate environment information. Finally, legitimacy theory is unlikely to have a strong influence except to the extent that corporate environment information could be explained as an outcome of pressures towards socially desirable performance.

Social responsibility disclosure may be a reaction to user needs (Guthrie and Parker, 1990), economic or political motivations (Freedman and Stagliano, 1992), share price reactions (Ingram, 1978; Shane and Spicer, 1983) and demands for decision-making (e.g. Belkaoui, 1984). Therefore, while agency and signalling theory may explain social responsibility disclosures as an attempt to reduce information asymmetries, capital need may relate this category to demands for decision-making. Political costs may explain social responsibility disclosures under an overall corporate procedure to minimise state intervention in corporate matters. Although these theoretical frameworks may provide some explanation for social responsibility disclosure this may be only partial. Legitimacy and information costs may provide more adequate conceptual grounds where social responsibility requires richer understanding. Thus, this type of disclosure may be explained through the community's perception of managerial reaction to specific social responsibility issues which could be related to a wider agenda of corporate responsiveness to socially desired actions. Finally, social responsibility disclosure could also be explained through the differential information costs confronted by companies.

Financial disclosure is considered to be information highly important for investment decisions and it is particularly relevant to existing and potential investors (Firth, 1978). Therefore, agency theory may be particularly relevant here. Financial information has been widely associated with signalling impact in the literature (e.g. Waymire, 1984). Thus, signalling may be of consideration in relation to financial information. Capital need may be relevant through the relation between financial information and cost of equity. Political costs may also be of some relevance, although the association between state intervention and financial information may be

particularly complex. Information costs may appear strong in influencing financial information, considering the high direct and proprietary costs of this category. Finally, although there may be legitimating impacts in financial information, legitimacy may not appear of similar strength compared to capital-based theories.

2.5 Emerging Capital Markets

The role of the capital market is to facilitate and encourage the economy's capital to flow to those individuals, firms and organisations with the most promising investment opportunities. This affects the functioning of the economy through its impact on the national income and also impacts on the efficient allocation of funds (Hevas, 1984).

The main purpose of this section is to provide some background information on the characteristics of emerging capitals markets, to enable a critical evaluation of the disclosure theories and their implications on voluntary disclosure. That will be further examined in the relative applicability to emerging capital markets of models developed in mature capital markets to emerging ones (2.6) and also in the particular institutional characteristics of Greece (chapter 3). Emerging capital markets differ significantly from developed capital markets (Errunza and Padmanabham, 1988; Saudagaran and Diga, 1997). Although they do not constitute a homogeneous group in terms of size, structure and sophistication (Feldman and Kumar, 1995), they have some common characteristics. These include the following:

1. *Efficiency.* Emerging markets are less efficient than developed capital markets (Keane, 1993).
2. *Liquidity.* Emerging markets are in general illiquid due to the limited number of companies listed, and funds raised and also due to trading values consolidated around a small range of stocks (Feldman and Kumar, 1995). Thin markets provide limited diversification and prices are vulnerable to large transactions.
3. *High Returns.* Emerging markets have experienced significant growth providing returns larger than the developed markets (Saudagaran and Diga, 1997). Investors can explore good values and also gain benefits of diversification.

4. *Institutional Characteristics.* Institutional characteristics tend to be different to emerging capital markets compared with mature capital markets (see Gray, 1988). Culture is also different between the two groups of these capital markets (Hofstede, 1980).
5. *Underdeveloped Regulatory Frameworks.* These markets are characterised by insufficient regulation and inefficient procedures in the entire system of the securities market (Owusu-Ansah, 1998).
6. *Information and Investor Protection.* Firms in emerging markets divulge less information with a relatively longer time lag (Errunza and Losq, 1985). Enforcement of investor protection and sanctions against insider trading are sometimes lax (Keane, 1993).
7. *Political Risk.* Although that may particularly refer to specific developing economies it is considered higher than in developed capital markets (Saudagaran and Diga, 1997).
8. *High Volatility.* This may reflect lags in the incorporation of new information, insider or infrequent trading. It may also be caused by the thinness of the markets (Sedaghat et al., 1994).

2.6 Discussion of the Applicability of Disclosure Theories for Emerging Capital Markets

A serious issue emerging when theories are adopted to explain research observations, is the relative applicability of these theories. That may be particularly true when theories have been introduced and developed based on specific characteristics of countries or capital markets. That may be the case in information economics theories where the majority of theories refer to an Anglo-Saxon corporate culture and can be applied elsewhere based only on a culture free hypothesis (Wallace and Naser, 1995).

The relative applicability to emerging capital markets where there are different institutional and cultural characteristics of several theories (e.g. agency, signalling, political costs) then becomes less straightforward (Wallace and Naser, 1995). Monitoring costs, for example, may be different in many emerging markets where

state, banks, or certain families have substantial equity holdings, and so there is generally little physical separation between ownership and management of capital (Adhikari and Tondkar, 1992). That may impact on the relative usefulness of agency as an explainer of voluntary disclosure variation in emerging capital markets. Moreover, there are several characteristics existing in emerging capital markets suggesting that agency outcomes may vary. The 'market discipline' (discussed in 2.4.2) as expressed by the market of corporate control and the market of corporate securities may not be directly applicable in many emerging markets where hostile take-over bids happen rarely and inefficient securities markets may not punish managerial ineffectiveness. Moreover, political and litigation costs as described by the majority of the studies (Jensen and Meckling, 1976; Watts and Zimmerman, 1978; Hagerman and Zmijewski, 1979) refer to the US regulatory framework which may be quite different from many unregulated emerging markets. Therefore, political costs may either be less strong in the majority of emerging capital markets where regulatory enforcement is less stringent than the majority of mature markets (Owusu-Ansah, 1998) or they may be directed in forms different from voluntary disclosure.

Furthermore, the majority of these theories are based on strong assumptions that may not hold for emerging capital markets. Some of them have been widely criticised even in the context of well-developed markets (e.g. Tinker, 1985). One of those assumptions is the rationality of market participants which is a strong base of agency and signalling models and it seems to differ significantly between developed and emerging market participants (Keane, 1993). Additionally, the relatively inefficient emerging capital markets may not provide grounds for strong signalling effects or they may be directed into different forms. The assumption undertaken by legitimacy that corporations have a propensity to be socially responsible may not fully hold in some emerging markets. Differing community awareness for corporate issues, managerial responsiveness to social responsibility and the broadly public policy process may suggest some variance of the approach to legitimacy. Finally, although capital need may be more easily approached to emerging capital markets considering the high returns provided in these markets and the relative high demand for capital, a

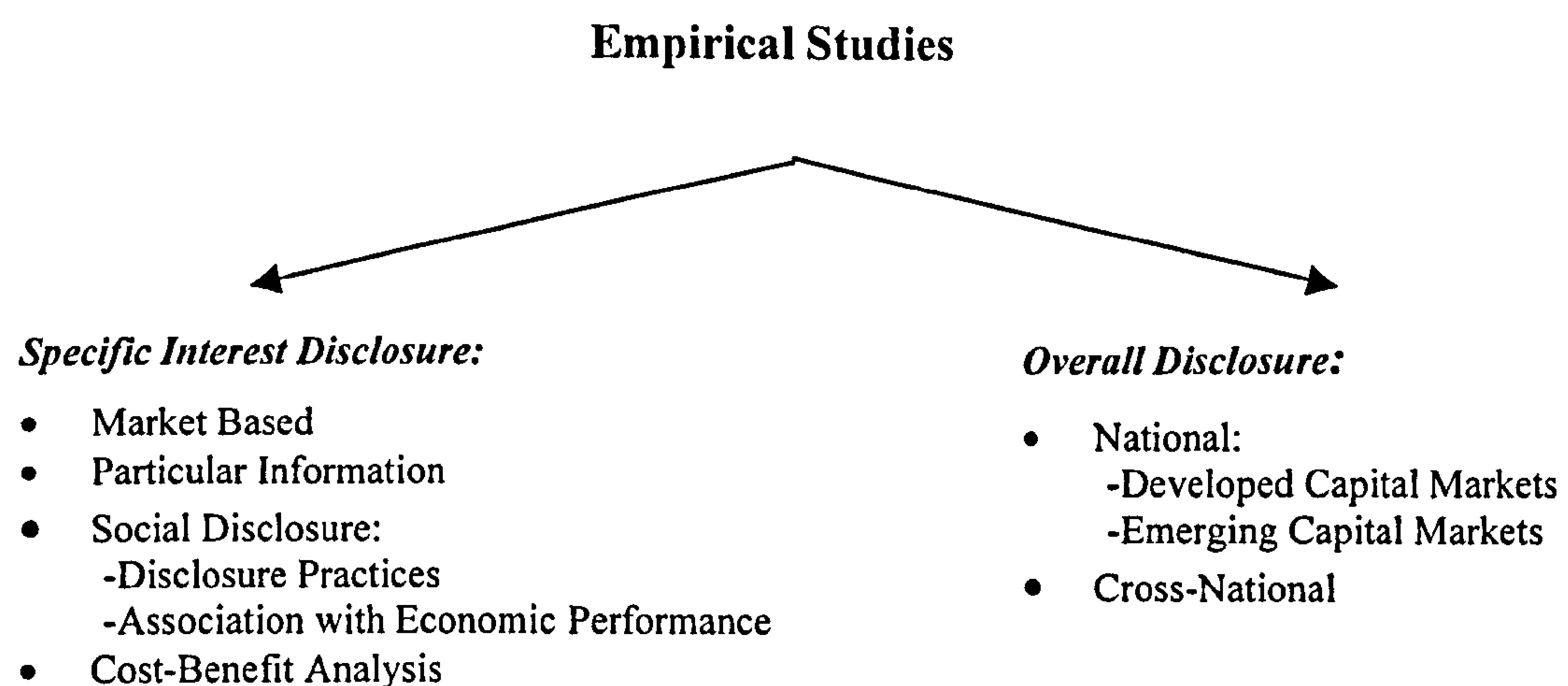
strong assumption on equity capital may be different in markets where debt finance is excessive.

Therefore, it seems that a rather culture-free hypothesis is assumed when these theories are applied to different capital markets. However, if culture is a strong determinant of accounting values (Jaggi, 1975; Gray, 1988, Perera, 1989), cultural impacts should be considered by research designs. That may take the form in voluntary disclosure studies on the determination of corporate attributes and their influence to disclosure practices and also on the relative interpretation of empirical findings. In order to assist such an attempt, the disclosure theories, presented in this chapter, are related to Greek institutional characteristics as described in chapter 3.

2.7 Empirical Studies

There is a particularly extensive volume and variety of empirical research in the area of corporate disclosure. That is especially true after the 1980s where the development of theoretical frameworks provided scope for further empirical testing. Empirical studies differ in many factors and therefore classification is difficult to attempt. The studies examined in this chapter are those that have applied the theoretical frameworks discussed earlier, that make use of similar research methods and are relevant to the objectives of this research. Empirical studies are classified here as: (1) specific interest disclosure and (2) overall disclosure. The particular categorisation of reviewed empirical studies may seen in Figure 2-2.

Figure 2-2: Categorisation of Empirical Studies



There is fairly extensive literature on specific interest disclosure (Table 2-1).

Table 2-1: Empirical Studies on Specific Interest Disclosure

Market Based	Particular Information	Social Disclosure: Disclosure Practices	Social Disclosure: Association with Economic Performance	Cost-Benefit
Patell (1976)	Leftwich et al. (1981)	Guthrie & Parker (1989)	Alexander & Buchholz (1978)	McKinnon (1984)
Penman (1980)	Benston (1986)	Roberts (1991)	Cochran & Wood (1984)	Benston (1984)
Ajinkya & Gift (1984)	Bradbury (1992)	Freedman & Stagliano (1992)	Mills and Gardner (1984)	Gray & Roberts (1989)
Waymire (1984)	McKinnon & Dalimunthe (1993)	Adams et al. (1995)	Ullmann (1985)	Elliott & Jacobson (1994)
Pownall & Waymire (1989)	Scott (1994)	Gray, R, et al. (1995)	McGuire et al. (1988)	
Lev & Penman (1990)		Adams et al. (1998)	Balabanis et al. (1998)	
Skinner (1994)		Wilmshurst and Frost (2000)		
Cooper & Grinder (1996)				
Coller & Yohn (1997)				
Healy et al. (1999)				
Dechow et al. (2000)				

Market-based research studies have employed signalling theory to explain the operation of voluntary disclosure, mainly management forecasts. Findings were concerned with the incremental value of voluntary disclosure (e.g. Patell, 1976; Ajinkya & Gift, 1984; Cooper & Grinder, 1996). Studies on particular information have examined segmental disclosure (e.g. Bradbury, 1992), pension plan information (Scott, 1994), interim reports (e.g. Leftwich et al., 1981) and current cost disclosures (Benston, 1986). Studies on social disclosure have examined social disclosure practices (e.g. Guthrie and Parker, 1989; Roberts, 1991; Freedman and Stagliano, 1992) or the association of social disclosure with economic performance measures (e.g. Ullmann, 1985; Balabanis et al., 1998). Finally, there is another trend in disclosure studies of a cost-benefit analysis on relative disclosures (e.g. Gray and Roberts, 1989).

Considering the sizeable number of empirical papers in all categories, a brief review and main conclusions of overall disclosure category are presented here. A more analytical presentation in relation to this study is reported on the development of testable hypotheses in chapter 6.

2.8 Overall Disclosure

The extent of overall disclosure has received much attention and research by the academic community (Table 2-2).

Table 2-2: Empirical Studies of Overall Disclosure

Overall Disclosure Developed Capital Markets		National Studies Emerging Capital Markets		Cross National Studies
Cerf (1961)	USA	Singhvi (1968)	India	Barret (1977)
Singhvi & Desai (1971)	USA	Firer & Meth (1986)	South Africa	Spero (1979)
Buzby (1974b; 1975)	USA	Wallace (1987)	Nigeria	Kahl & Belkaoui (1981)
Stanga (1976)	USA	Chow & Wong-Boren (1987)	Mexico	Meek & Gray (1989)
Belkaoui & Kahl (1978)	Canada	Tai et al. (1990)	Hong Kong	Gray, S, et al. (1995)
Firth (1979a)	UK	Abayo et al. (1993)	Tanzania	Meek et al. (1995)
McNally et al. (1982)	New Zealand	Ahmed & Nicholls (1994)	Bangladesh	
Cooke (1989a)	Sweden	Hossain et al. (1994)	Malaysia	
Lutfi (1989)	UK	Al-Modahki (1995)	Saudi Arabia	
Cooke (1991; 1992; 1993)	Japan	Nicholls and Ahmed (1995)	Bangladesh	
Malone et al. (1993)	USA	Wallace & Naser (1995)	Hong Kong	
Wallace et al. (1994)	Spain	Patton & Zelenka (1997)	Czech Republic	
Hossain et al. (1995)	New Zealand	Suwaidan (1997)	Jordan	
Raffournier (1995)	Switzerland	Owusu-Ansah (1998)	Zimbabwe	
Inchausti (1997)	Spain	Abd-Elsalam (1999)	Egypt	
Tauringana (1997)	UK	Sarpong (1999)	Ghana	
Depoers (2000)	France			

It was Cerf (1961) who first developed a quantified model to examine disclosure issues. He developed a 31-item index of information desirable to financial analysts and he applied it to 527 US-listed companies. Cerf tested scores of disclosure with corporate characteristics, namely asset size, number of shareholders, profitability and

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of particular importance here since they may stress the relative usefulness of theoretical frameworks in emerging markets and also they may emphasise relative peculiarities of these markets. Furthermore, this research study belongs in this category and an examination may assist when locating Greece within this cluster.

Overall research findings indicate a strong support for corporate size and listing status significantly to explain variations in levels of accounting disclosure policies (Appendix 2-II). Corporate size is of particular importance since it is the only significant factor in some research studies (Chow and Wong-Boren, 1987; Wallace, 1987; Tai et al., 1990) and the single most important factor in most studies.

Table 2-4: Empirical Results on Emerging Capital Markets

Variables	Significant Results	Non-Significant Results
Gearing		Chow and Wong-Boren (1987), Hossain et al. (1994), Patton and Zelenka (1997), Abd-Elsalam (1999)
Profitability	Wallace and Naser (1995, negative), Patton and Zelenka (1997), Owusu-Ansah (1998)	Singhvi (1968), Wallace (1987), Suwaidan (1997)
Liquidity		Wallace (1987), Wallace and Naser, (1995), Owusu-Ansah (1998), Abd-Elsalam (1999)
Industry	Wallace and Naser (1995) and Suwaidan (1997)	Wallace (1987), Tai et al. (1990), Patton and Zelenka (1997), Owusu-Ansah (1998)
Audit Factor	Ahmed and Nicholls (1994), Patton and Zelenka (1997), Suwaidan (1997), Abd-Elsalam (1999)	Singhvi (1969), Tai et al. (1990), Hossain et al. (1994), Al-Modhaki (1995), Owusu-Ansah (1998)
Type of Management	Singhvi (1968)	Wallace (1987)
Ownership Structure	Hossain et al. (1994), Suwaidan (1997), Owusu-Ansah (1998)	
Assets in Place		Chow and Wong-Boren (1987), Hossain et al. (1994)

There is a considerable number of additional variables tested in cited studies. Foreign investment, corporate age, length of incorporation, qualification of principal accounting officer, origin of parent, risk, multinational affiliation, legal form, share trading, foreign registration, familiarity, language and subsidiary of parent were variables which cannot be generalised since they have been tested only in single research studies.

Overall, research findings in emerging capital markets tend to support a strong significance for corporate size, listing status and ownership structure. They also support no association for gearing, liquidity and assets in place. Evidence on profitability, industry factor, audit firm, and management type is mixed. There is also a sizeable number of other variables, included in single studies of different markets, that cannot be generalised.

2.8.1.3 Comparison of Empirical Findings on Developed and Emerging Capital Markets

A comparison of empirical findings on developed and emerging capital markets aims to enable conclusions to be drawn on the relative similarities and differences among these studies. That may provide further insights about the institutional contexts, as they influence reporting practices. This is essential to form expectations on independent variables and also may assist in the interpretation of empirical findings.

Corporate size and listing status were the variables with strong support in both institutional environments. That may be particularly true for size in emerging capital markets where many studies found it to be the only variable of explanatory power. These outcomes suggest that corporate size and listing status are of particular relevance to accounting disclosure issues. The variable assets in place was also found in both contexts to have no explanatory power in relation to accounting disclosure. While assets in place is backed by agency theory this may suggest that agency conflicts may not be adequately captured by this variable. Similar findings were found for profitability and the industry factor where there are mixed results in both environments.

Contrary to findings on developed capital markets where the association for gearing and liquidity was found to be inconclusive, studies on emerging capital markets showed no significance for gearing and liquidity. That may offer some insights into weak agency and signalling effects in emerging markets. The audit firm factor was found to be of mixed evidence in emerging markets, but of no association in developed markets. That may suggest that audit firm may be of some relevance to emerging markets which lack sophisticated professional expertise.

Overall, research findings in developed and emerging capital markets have similar outcomes in some specific variables (size, listing status and assets in place) but also quite different in some others (gearing, liquidity, audit firm, ownership structure). Findings on profitability and industry are inconclusive in both frameworks. A considerable number of other variables tested to emerging markets may also point to the relative non-identical characteristics of these markets. Related issues are further analysed in chapter 6.

2.8.1.4 Discussion of Diverse Findings of Disclosure Studies

It has been become evident from the previous sections that there is a particularly wide variation amongst results of empirical studies. That exists for studies in developed and also emerging capital markets. While a direct comparison of these studies is impossible owing to fundamental differences, a review of these differences may enlighten the relative conflicting results. A possible reason for conflicting results may lie in the different institutional frameworks. Institutional characteristics and cultural differences (Jaggi, 1975; Gay, 1989; Perera, 1989) may provide different influences in reporting practices which might have been reflected in empirical findings. While studies have been divided between developed and emerging capital markets there are material differences in markets included within these categories.

Differences in the number and type of variables adopted may also be a possible reason for diverse outcomes (see 7.4). Variations in sample size, different statistical methods, differences in index construction, have also either individually or severally contributed to mixed results (Wallace et al., 1994). Finally, differences in nature of disclosure examined (voluntary-mandatory-comprehensiveness), period of time, definition of disclosure and judgements on scoring process may have had an impact on diversity of results.

2.8.2 Cross National Studies

While studies on single countries provided diverse results as a result of fundamental differences discussed in 2.8.1.4, cross national studies provided more direct comparisons amongst different countries. They measured accounting disclosure using the same index at the same period of time, they applied similar independent

variables tested by similar statistics, and they also had a similar approach to the scoring process.

In an initial study comparing 17 disclosure items in 30 companies (belonging to US, UK, Japan, Sweden, Netherlands, Germany and France) for ten years (1963-1972), Barrett (1977) concluded that US and UK companies disclose more than companies in other countries. The extent of disclosure was found to be positively related to the degree of efficiency in domestic financial markets. Spero (1979) compared 275 voluntary items of 60 companies belonging to France, Sweden and UK. He found that that the firm's need for capital explains voluntary disclosure. Furthermore, the first industry-specific study was conducted by Kahl and Belkaoui (1981) in the banking sector. They examined 70 companies belonging to 18 different countries. They concluded US banks disclose significantly more voluntary disclosure.

Meek and Gray (1989) investigated 10 voluntary disclosure items of 28 continental companies (belonging to France, Germany, Netherlands and France) listed on the LSE. Contrary to other disclosure studies they controlled for multiple listing by excluding items required by other stock exchanges. They found excessive levels of voluntary disclosure, particularly in some specific areas, where national characteristics played a dominant role.

In two more comprehensive studies Gray, S, et al. (1995) and Meek et al. (1995) examined the relative influence of corporate specific characteristics on types of voluntary disclosure, suggesting voluntary disclosure should not be examined as an amorphous group. Gray, S, et al. (1995) examined 128 voluntary items of 116 US and 64 UK multinational companies. They found that international listing status and country of origin influence levels of voluntary disclosure. That is particularly true for specific categories of voluntary disclosure, namely strategic information for international status and non-financial information for country of origin. Finally, Meek et al. (1995) examined factors influencing categories of voluntary disclosure, as measured by an 85-item index, of 116 US, 64 UK and 46 Continental European multinationals (16 French, 12 German and 18 Dutch). They concluded that size,

country/region and listing status had overall explanatory power. Results were more diverse when categories of voluntary disclosure (strategic, non-financial, financial) were examined. These two studies are of particular consideration in the research methods (chapter 7).

2.9 Summary and Conclusions

This chapter has presented the theoretical background of underlying issues relating to the operation of voluntary disclosure. That provides the essential theoretical background to develop hypotheses (chapter 6) and also interpret empirical results (chapter 9). This chapter is based on the presumption that accounting information serves stewardship and decision-making functions. Accounting information plays a crucial role in many financial and economic matters, as discussed in 2.2. Accounting information is shaped and determined by a variety of factors. That may be particularly true for voluntary disclosure. Voluntary disclosure was argued to be a balance between the demands of users and the willingness of management to supply. It is also a compromise between costs and benefits.

Since quantification of demands for, and costs and benefits of, accounting information is difficult to determine there is a long debate on the means leading to optimality of information (2.3). Proponents of regulation argue that mandatory disclosure is the only means of avoiding market failures. However, free market advocates argue for an invisible hand approach where market forces lead to information efficiency through voluntary disclosure. The existence of modern regulatory environments make empirical tests of the free market position rather difficult. Moreover, both stances tend to be based on strong conceptual arguments which leaves the question of approaches to information optimality still open but beyond the objectives of this thesis.

There are many frameworks providing theoretical reasons to explain voluntary disclosure (2.4) which are critically evaluated in this chapter. These theories are divided into capital market based, agency, costs based and legitimacy. Signalling explains voluntary disclosure as an attempt of companies to distinguish themselves

from others. Capital need theory views voluntary disclosure as a method by which companies seek to reduce levels of uncertainty (risk) and cost of capital. The agency model explains voluntary disclosure in relation to problems caused by the separation of ownership from control and considers it as a medium of reducing agency costs. Voluntary disclosure is viewed as a medium to reduce political costs derived from operations and it may be determined on an information costs basis. Finally, voluntary disclosure may also be a way companies legitimise their operations to the general public.

While the applicability of disclosure theories may be straightforward in Anglo-Saxon developed capital markets where these theories have been introduced, their relative power may be less clear in emerging markets. That may be the consequence of different fundamental characteristics of these markets (2.5). Thus, the way these theories are applied to different institutional contexts should be considered in research designs. Interpretation of empirical results should also be cautious (2.6).

This chapter has also presented a review of the empirical literature in order to locate the area within which this study is conducted (2.7). Studies of overall disclosure and specific interest disclosure were presented with particular reference to the former (2.8). Studies conducted in developed, emerging and cross national contexts were outlined. With the exception of size and listing status evidence was mixed for other variables tested. However, there seem to be some homogenous trends in similar institutional frameworks. This thesis examines variables discussed in this chapter and also others relevant to the Greek environment. Theories of disclosure with reference to empirical studies and Greek institutional characteristics (chapter 3) rely upon the development of hypotheses, expectations (chapter 6) and the interpretation of empirical findings (chapter 9) and are all brought together in chapter 11.

CHAPTER 3

3. Influences on the Greek Accounting Environment

3.1 Introduction

It has been suggested that mandatory and voluntary accounting practices are influenced by institutional, cultural and historical factors (Gray, 1988). While the accounting environment is influenced by a variety of factors, it has been argued that political, economic, legal, financial and professional factors are the most significant (Puxty et al., 1987). Although this study focuses on the ASE developments, they are only one aspect of a wider set of influences on accounting disclosure which are discussed here. This chapter provides background information which enhances understanding of the approach taken by Greek financial reporting, peculiarities of accounting practices, and levels of disclosure. The main focus of this chapter is to provide insights into the relative applicability of voluntary disclosure theoretical frameworks and observations which will assist the interpretation of results.

This chapter introduces Greece (3.2) and its political (3.3), legal (3.4) and economic systems (3.5). It describes the Greek financial system and addresses issues relevant to accounting disclosure (3.6). The accounting profession and the particular approach taken after its liberalisation is outlined in 3.7. It discusses basic elements of taxation (3.8), the main characteristics of Greek management (3.9), and the societal culture (3.10) as they impact on accounting. A critical evaluation is provided in 3.11. Finally, 3.12 summarises the main conclusions and points to the implications of the institutional characteristics for voluntary disclosure.

3.2 The Country

Early evidence of bookkeeping and auditing can be seen in ancient Greece and reliable and developed accounting methods in the centuries of the Byzantine Empire (Ballis, 1998). The main influences on the political regime after the long period of the Ottoman Empire were French and German in the 19th century and British and American in the 20th century. Its current governmental system is based on a

constitution established as recently as 1974. Greece became the tenth member of the European Economic Community (EEC) in 1981, which significantly influenced the Greek economic system. European integration and accounting harmonisation processes caused fundamental changes to financial reporting.

3.3 The Political System

3.3.1 Background Information

The modern Greek State dates from 1821. Because of the political instability of this era the 'Great Powers' created the Greek Monarchy which was abolished by a plebiscite in 1975. It was through the abolition of the monarchy, the end of the junta (1967-1973) and the establishment of a new constitution that the transition to democracy took place. The new constitution lays down that Greece is a parliamentary democracy (Kohler, 1982, p.146). The authority of the state is divided into the legislature, the executive exercised by the government and the judiciary powers exercised by courts.

The parliament consists of 300 members elected every four years. The proposal for a new law may originate in either parliament or the government, although financial laws are proposed only by the government. In the period since 1974, which is the most politically stable era in the history of modern Greece, the political parties that have succeeded each other in power are the New Democracy (centre-right) and PASOK (centre-left). Efforts for the democratisation of the political system, economic reforms, social and structural modernisation succeeded the full membership of Greece in the EEC (1981). EEC membership, in turn, was particularly important for the transition to democracy. Moreover, compulsory harmonisation of legislation and institutions facilitated both the transition to and consolidation of the Greek democratic system by limiting possibilities for significant diversions from the Western European norm (Doucas, 1993, p.509). However, despite the transition to democracy and the EU membership, clientelistic networks, party elites, illiberal and corrupting norms of behaviour are still major problems of the political system (Pridham, 1990).

3.3.2 The Political System as Related to Accounting Information Issues

The Greek political system is a crucial determinant of financial reporting and particularly accounting regulation because it influences decisions about the organisation and the structure of the economy and the overall role of accounting in Greece. Politics have played a significant role in economic relations, especially in the orientation of the economy towards a free market system. Greece has a large public sector compared with that of other EU countries, which means higher governmental intervention. However, there are current trends towards a more liberal economic system. Although the political system is significant for its influence on Greek economy there has been potential attention given to the accounting system and the capital market. The politicisation of the economic environment, the particular approach to the liberalisation of the auditing profession (3.7.2), and also implications for accounting regulation were some of them. Furthermore, there is evidence of especial influence of political factors on stock prices (Alexakis and Petrakis, 1991).

The Greek political system could be related to the relative applicability of theoretical frameworks in matters of accounting disclosure (see chapter 2). Thus, the political system could be related to political costs theory in the way it intervenes in the economy and business regulation and supervision (Table 3-1). Moreover, it relates to signalling and agency theories through the influence of politics on the economic organisation, structure and economic efficiency and on particular regulatory initiatives (e.g. transparency, corporate governance). The particular approach of the Greek government to liberalisation of state-owned utilities and their listing to the ASE and the strategic orientation of state managed listed companies relate to capital need theory. Finally, it is also related to the legitimacy theory because politics determine the way good citizenship is perceived in Greek society through time.

Table 3-1: Political System Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political Costs	Legitimacy	Information Costs
Political	✓	✓	✓	✓	✓	N/A*

*N/A = Non Applicable

Overall the structure of politics in Greece is seen as not providing strong incentives for excessive voluntary disclosure by listed companies.

3.4 The Legal System

3.4.1 Background Information

Greece is a code law country. The law has influences from the ancient Greek law, the law of the Hellenistic ages, the Roman and the Byzantine law and finally German and French laws. Nowadays international, and mainly European, laws play the most influential role. The primary sources of law are defined to be legislation and custom and secondary case law since the function of the judge is not to make law but to make decisions according to the existing law. However, judicial precedents are considered important because frequently they are regarded as interpretations of laws (Timagenis, 1993). The written constitution provides the basic law of the state and decrees how the country is organised. Although theoretically the law can be developed through custom, in practice almost the entire body of the present law is statutory. A system of hierarchy exists whereby each piece of legislation should comply with superior legislation and all is governed by the constitution. The most important laws to Greek accounting are the tax law, the company law and the accounting plan. The tax law is one of the factors most influential on financial reporting since it prescribes valuation rules. These sources of legislation are analysed further in Chapter 4.

3.4.2 The Legal System as Related to Accounting Information Issues

It has been argued that the legal system influences ownership structure, capital structure, development of capital markets and extent of disclosure (e.g. Jaggi and Low, 2000). Legislation impacts directly on accounting practice since it prescribes rules that have to be followed, and they comprise the only acceptable accounting behaviour for all companies operating in Greece. The main objective of those laws is the sound organisation of business and also the protection of creditors and shareholders. '*True and fair view*' is justified by compliance with the law which restricts the options managers may take in reporting on the position of their companies (Papas, 1993, p.172). Managers are more concerned to comply with the law usually by reporting the minimum requirements.

The legal system influences agency relations by regulating the legal framework for the relations between management and shareholders, corporate governance, and the structure, type and voting power of shares (Table 3-2). This in turn influences directly the market of corporate control and agency considerations (2.4.2). The legislation also influences the credibility of signals in terms of imposing penalties on misleading information. The influence of the legal system on accounting disclosure could be viewed through the rationale of legitimacy theory since good citizenship refers to compliance with legal requirements. Companies also may eliminate political costs through adhering to existing laws since they avoid further interference by state authorities.

Table 3-2: Legal System Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Legal	✓	✓	N/A	✓	✓	N/A

N/A = Non Applicable

Hence, the form that accounting has undertaken through the impact of the legal system is expected not to encourage the possibility of enhanced extent of voluntary information reported by listed companies.

3.5 The Economic System

3.5.1 Background Information

Greece is located on the European Mediterranean periphery with less developed economic structures and institutions and relatively low income per head, compared with other EU countries (Table 3-3).

Table 3-3: Macroeconomic Indicators

Measure (1997)		Greece	EU (15)
GDP (Billion Dollars)		93.2	7527.2
GDP per Capita*		11 684	23 042
Inflation (%)		6.9	1.7
Government Fiscal Balance (%GDP)		-4.0	-2.4
Balance of Payments on Current Account (Billion $)		-2.9	123.3
Measure	**1975**	**1985**	**1997**
Government Total Outlays (%GDP)	27.9	42.9	42.9
Government Gross Public Debt (%GDP)	18.5	47.8	109.5

Source: OECD, 1998, *1996 data

Greece is characterised by a mixed capitalist economy which means that the production is generally privately owned, but the government intervenes in the economy in many ways. The state owns major public utilities and that tends to influence a major part of the economic life, including listed companies (Leventis, 1998). Major problems for the economy have been the high inflation rates, macroeconomic imbalances with a chronic deficit in the trade balance, imperfect labour market with low productivity, ageing population in an ill-designed pension system, weak ability to compete internationally and state protectionism for industries. These are some significant reasons for the relatively underdeveloped nature of the economy.

Greece experienced unprecedented growth rates (6-7% annually) during the mid-1950s until the first energy crisis. After the exceptional growth rates registered until the mid-1970s, over the second half of the 1970s the growth of real GDP receded (3-4 per cent) but it was still higher compared with that of the western European countries. Between 1981 and 1989 an expansionary macroeconomic policy was pursued which increased the public sector and caused the macroeconomic fundamentals to deteriorate. During the 1990s the main economic philosophy was the liberal proposition of cutting down the role of state through an extensive programme of privatisation and rationalisation of the tax system and the improvement of competitiveness with a strong European orientation (Lolos, 1998).

Greece specialises mainly in resource-intensive and labour-intensive products. Agricultural products play a significant role in the economy. The main products exported are textiles and metals (nickel and aluminium) and cement. Chemicals and petroleum products are also major industries. Tourism also plays a particularly significant part in the economic development. Shipping is a dominant industry which places Greece in the top three ship-owning countries in the world (Bornozis, 1993, p.371).

Special feature of the Greek economic system is the relatively small sized and family-owned nature of companies in the private sector which are mainly horizontally organised. These companies tend to be short-lived, lasting only one

generation. They look mainly to the domestic market, which results in underdeveloped export potentiality and an unspecialised labour force (Korres, 1998). They have been traditionally financed by retention of earnings for equity, and by bank loans secured by mortgage for debt which makes debt to equity ratios appear imprudent compared with Anglo-Saxon countries (Papas, 1993). This has a direct impact on the accounting practice, namely the reduction of agency problems and the relative lack of influence of foreign accounting practices from the source of multinational enterprises, although there is a significant influence from both historical roots and mainly the EU (Neal, 1997). Foreign companies operating in Greece are limited in number compared with other EU countries and mainly operate branches rather than establishing manufacturing bases.

An extensive privatisation scheme, added to the approval of Klisthenis programme to modernise public sector and information technologies, were significant structural changes. Moreover, the approval of the independence of the Bank of Greece (end-1997) which is expected to strengthen price stability, and pressures from the convergence of EU criteria, are all expected to advance economic bases in the following years. Mergers and acquisitions (M&A) did not occur until the late 1980s. Issuance of new legislation influenced M&A activity which took place mainly in the manufacturing and insurance industries (Katsos and Lekakis, 1991). A particular aspect of M&A activity was that mergers referred to domestic firms, though acquisitions have been predominantly a foreign matter. Hostile acquisitions did not occur, although there have been some recently reported cases in the ASE.

3.5.2 The Economic System as Related to Accounting Information Issues

The discussion about the economic system gives some insights into the way Greek society organises business structure and particularly accounting information systems. The low demand for sophisticated accounting techniques and financial reporting may have a basis in the approach that the Greek economic system has established. The economic system influences the accounting infrastructure which in turn impacts on the economic growth and the development of the capital market (Lee, 1987).

The structure of the economy could be related to the agency model in terms that the family-owned business sector does not create strong agency pressures, and in relation to signalling in terms that economic efficiency impacts on capital market efficiency and to signalling matters (Table 3-4). The economic system could be viewed in relation to capital needs in terms of financial policies practised by enterprises. Degrees of organisation and information efficiency tend to impact on perceptions about information cost factors. The relative lack of hostile acquisitions relates to the market of corporate control and agency considerations.

Table 3-4: Economic System Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Economic	✓	✓	✓	N/A	N/A	✓

N/A = Not Applicable

Overall, the particular structure of the Greek economy is not anticipated to have a positive influence on the level of voluntary disclosure produced although recent changes may lead to some differential anticipations. The economic system affects significantly the development of the capital market, discussed in the following section.

3.6 The Financial System

The financial system is one of the most important determinants of accounting in national business since the way companies are financed (debt/equity) affects their information systems and strategy and is particularly relevant to the objectives of this research. The sophistication of finance providers and their reliance upon financial statements impacts significantly on the quantity and quality of accounting disclosure practices (Roberts et al., 1998, p.18). In this section the fundamental parts of the Greek financial system, to date the banking system, the capital market and the ASE, are analysed with particular relevance to their influence on accounting disclosure issues.

3.6.1 The Banking System

The modern banking system began in 1928 when the National Financial Bank was set up. The number of banks increased substantially during the second half of the nineteenth century and the first two decades of the twentieth century. Following the

disastrous economic consequences of the Second World War and the subsequent civil war which created an urgent need for economic reconstruction, the Greek government decided to intervene heavily in the banking system, which became the main domestic vehicle for financing the country's restructuring projects (Gortsos, 1998, p.5).

This heavily regulated operational framework reflected the relative weight of banking in the Greek financial system. Capital and money markets were very thin until the mid-1980s, lacking the necessary level of transparency and efficiency (Gortsos, 1998). The market for debt securities was confined to the state and certain public-owned enterprises. This regulatory framework lasted until the early 1980s when Greece became a member of the EEC. Programmes of deregulation and modernisation resulted in several structural developments from which the most important are interest rates deregulation, liberalisation of cross border capital movements, abolition of direct credit controls, de-specialisation of credit institutions[15], modernisation of money and capital markets, modernisation of monetary policy and the enhancement of prudential banking regulation. The boom of the capital market coincides with the era of structural reforms in the banking sector. The deregulation of the banking system and the liberalisation of the capital flows boosted the development of new banking services and the operation of several types of financial intermediaries.

3.6.2 The Capital Market

The Greek capital market consists of the ASE and a variety of financial intermediaries, namely investment companies, investment banks, mutual funds and leasing companies. Although the first investment company (Greek Investment co) listed on the ASE in 1973, their numbers increased substantially during the 1990s. Their object of operations is the management of a portfolio of securities, although there are qualitative restrictions on the maximum amount of funds they can invest in

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[15] Commercial banks are now allowed to provide the whole range of commercial and investment banking services.

different kinds of financial assets[16]. The majority of investment companies are subsidiaries of Greek banks. A particular feature of this sector is that its share performance has been found to be significantly affected by expectations of irrational investors which is an indication of relative inefficiency in the particular sector and also on the ASE (Hardouvelis and Tsiritakis, 1995).

Investment banks are particularly influential financial intermediaries. Their traditional function[17] was to grant long-term commercial loans to the industrial sector of the economy through savings collected by the insurance of long-term bank bonds. However, since 1992 investment banks have shifted the emphasis of their operations to assisting enterprises in issuing debt and equity securities to the general public and in having them listed on the ASE (Papas, 1993, p.34). Investment banks are also active in the fields of corporate mergers and acquisitions and also in financial consulting.

The first Greek mutual fund (Hermes) was established in 1973 by the Commercial Bank. Mutual funds in Greece experienced spectacular development during the 1990s following bank deregulation and harmonisation with EU requirements (Law 1969/91). They are based mainly in Greece, dominated by the commercial banks and they fall short in terms of competition and economies of scale compared with international mutual funds (Gatzonas, 1995). Their continuous expansion provides an eminent position of those companies in the group of institutional investors. Considering that mutual funds are characterised by long term horizons their further development is considered particularly important for the stability and development of the Greek capital market (Mylonas, 1995).

Finally, some relatively new financial intermediaries established in the capital market are leasing companies (Law 1665/1986) and also venture capital companies (Law

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[16] e.g. investment into the securities of a public company cannot exceed either the 10% of the ivestment company paid in share capital or the 10% of the public company's share capital, whichever amount is smaller.

[17] Investment banks have been permitted to accept deposits, collect funds in the interbank market in an amount not exceeding 50% of their own funds, conduct foreign exchange operations, grant short-term loans and invest in corporate securities (Gortsos, 1998, p.28).

1775/1988). Pension funds that currently play a relatively insignificant role are expected through structural changes (EU directives stipulate freedom from governmental intervention in their investment choices) to perform a more dynamic role which is crucial for the development of the market (Vittas, 1993).

3.6.3 The Athens Stock Exchange

The ASE was officially established in 1876. For several years before, an unofficial Stock Exchange operated in a coffee shop (called '*Beautiful Greece*') but excessive speculation led the Council of Ministers to establish an official market and to issue the first Stock Exchange Law based on the French Commercial Code. The ASE began to operate as a self-regulated public institution. Until 1917 the ASE operated in a relatively unregulated framework (Law 1308) and it was only in 1928 (Law 3632) that ASE legal framework was completed. Subsequent Laws (L), Ministerial Decisions (MD) and Presidential Decrees[18] (PD) that incorporated European Directives provided the legal framework of the current operating stock exchange. The ASE is a joint stock company, supervised by the Ministry of the National Economy (MNE). The ownership of the exchange belongs mainly to the Greek State and also to other members of the exchange.

The ASE is managed by the Board of Directors (BoD). The supervisory bodies of the ASE are the Government Supervisor (GS) and Capital Markets Commission (CMC). The GS is appointed by the MNE and he sees to the compliance of all trading parties with the existing rules and regulations (ASE, 1998a). The CMC is an independent public entity, operating under the auspices of the MNE. It is primarily responsible for ensuring the protection of investors and compliance with stock exchange regulations (ASE, 1998a).

The ASE has been traditionally characterised by illiquidity and a small number of listed companies compared with the number of companies eligible for listing (Papas, 1993). The main reasons for the underdevelopment have been the predominance of

[18] L:1806/88, 1892/90, 1969/91, 2166/93, 2198/94, 2324/95, 2328/95, 2396/96, 2414/96, 2372/96, 2533/97; MD: 6280/B508, 6281/B; PD: 350/24.5.1985, 50, 51, 52, 53 (ASE, 1998a).

the banking sector and the heavy reliance of companies on debt finance, family ownership of companies and fear of relinquishing control, macroeconomic imbalances, governmental policies (e.g. national system of social security), heavy intervention of the State in the economy, the perceived strictness of listing and reporting requirements, lack of adequacy, completeness, quality and credibility of information disclosed by listed companies (Deroukakis, 1988). Additionally, tax issues (interest income unlike dividend income was not taxable), ASE structural inadequacies (Moshos and Xanthakis, 1995), lack of developed information technology, and the mistrust of both domestic and foreign investors in ASE[19] had some impact on the underdevelopment of the ASE.

Until the beginning of 1987 there was limited interest in the ASE. Then the government freed the capital movement for securities investments, which helped the market to take off. The ASE had many ups and downs as a result of the international crisis (1987), political turns (1990) and other influential events (e.g. Middle East Crisis, 1990; loss of the Olympic Games 1996). However, some of the factors that enhanced the attractiveness of the market and resulted in record trading volumes (Table 3-5) are the partial privatisation of the ASE, the creation of new markets, developments on the electronic trading, Central Securities Depository and the dematerialisation of treasury fixed income securities, the convergence of macroeconomic fundamentals with the EU averages, privatisations of state companies, and the award of the 2004 Olympic games to Athens.

Table 3-5: Shares Turnover (in billion GRD)

Year	Main Market	Parallel Market	Total
1992	305.25	2.04	307.29
1993	624.68	12.39	637.08
1994	1,226.26	35.79	1,262.05
1995	1,257.68	150.79	1,408.47
1996	1,817.57	172.44	1,990.01
1997	5,540.30	261.73	5,802.03

Source: ASE, 1998a

[19] Apart from the operational inefficiencies many scandals (e.g. Magrizos, Laureotiki the scandal of 7th November of 1996 when the public prosecutor closed the ASE for three days) reduced even further the confidence of the market. For further information see Mathiopoulos (1996).

Another revealing institutional development within the ASE was the creation of the Thessaloniki Stock Exchange Center (TSEC) in 1996 to attract companies from Northern Greece and the Balkans. Institutional changes which affected investment opportunities and risk-return were considered to be sound bases for the further development of the ASE securities (Barkoulas and Travlos, 1998). Moreover, Delors II urged companies towards an ASE listing (mainly the construction companies). Tax incentives and further developments in the Eastern European countries (markets that had traditionally good commercial relations with Greece) created many investment opportunities. Furthermore, many companies turned to the ASE since their needs for capital could not be satisfied by banks which devote most of their resources to financing the large public sector deficits (Bornozis, 1993). The aforementioned factors increased the capital raised by the ASE (Table 3-6).

Table 3-6: Shares Issues (in billion GRD)

Year	Listed Companies	IPO'S	Total
1992	30.82	0.41	31.23
1993	80.19	20.78	100.97
1994	164.27	98.72	262.99
1995	64.44	23.85	88.29
1996	35.77	114.68	150.45
1997	513.91	17.29	531.20

Source: ASE, 1998a

Measures to rationalise the market increased market transparency. During 1997 many companies listed on the ASE, shares turnover increased rapidly, private companies became more dependent on equity finance, public and institutional investors increased significantly their investment activity, investment companies flourished and as a result market participants became more sensitive to information issues.

A fundamental characteristic of the ASE is its significant concentration since the five largest companies listed for 1997 represent 51.52% of the total market capitalisation and this figure increases to 65.65% when the ten largest companies are included. Finally, empirical findings emphasise the relative inefficiency of the market (Papaionnou, 1982; Bletsas and Tebbutt, 1984; Hevas, 1984; Alexakis, 1992; Moshos and Xanthakis, 1995; Niarchos and Alexakis, 1998), the difficulty in interpreting findings related to information utilisation (Papaioannou, 1984), and the relative importance of socio-political factors rather than the profits of the companies

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many of the remaining companies were partially state owned, that could be perceived as being an adverse reaction of the private sector towards transparent and reliable reporting practices. As a result, auditing was developed in relation to tax issues rather than as a system ensuring reliable and informative financial reporting. During the period of the monopoly there has been failure of audits, both in the national accounts[20] and in the accounts of state enterprises, where it was common for various entities not to comply with the requirement for an audit, particularly in relation to transactions with the government (Neal, 1997).

The most important rival group to SOL was SELE (Association of Certified Accountants-Auditors). SELE was established in 1979 following an initiative by partners in international accounting firms operating in Greece. Members of SELE concentrated on tax and management consultancy and also carried out some non-mandatory audits on behalf of foreign enterprises which had invested in Greek subsidiaries (McErlean, 1992). However, members of SELE were prohibited by law from conducting statutory audits. SELE played a significant role in lobbying towards the liberalisation of the auditing profession (Caramanis, 1997).

3.7.1 Liberalisation of the Auditing Profession

The auditing profession was liberalised in 1992 by enabling legislation, following a long and intense intra-professional struggle (Caramanis, 1997). The audit reform took place against the backdrop of advancing neo-liberal economic and political discourses towards deregulation, privatisation and less state involvement in the management of the economy (ibid.). SOL was abolished and a new institute of certified auditors was established (SOE-Institute of Sworn-in Auditors) where all SOL members became members automatically. Additionally, some members of SELE and also some accountants were offered a position in the new body. However, the audit reforms introduced in 1992 did not change the functions which auditors were required to reform, nor did they alter the standards of behaviour required of

[20] In one case a GRD 950 bn, approximately US$ 4 bn, error was made in the accounts of the state social security fund and was undetected by the auditors for two year, where this amount represented almost 5% of GDP.

auditors (Caramanis, 1998). All big-five firms operate in Greece dealing with auditing and mainly consultancy.

3.7.2 The Accounting Profession as Related to Accounting Information Issues

The accounting profession in Greece has not achieved the level of development found in other European countries and the US. Auditing has been used as an instrument of social control in the economic and political arena without perceiving the objective of need for capital. The particular approach taken by the liberalisation of the auditing profession does not provide evidence for improved reporting practices. In contrast there is a long debate on issues related to true and fair presentation of financial statements and credibility (Caramanis, 1996, p.259). State regulation of accounting, strong relevance to tax issues, the small size (around 450 members) and the particular way in which the Greek accounting profession was established and organised does not provide constitutive scope for sophisticated influence to Greek institutions and accounting system.

Thus, agency may provide an explanation for especially sophisticated auditing in order to protect the wealth of principals. Signalling could be related to the decision towards specific accounting firm or auditor. Information costs are also relevant here since following the liberalisation audit fees decreased (Table 3-8).

Table 3-8: Accounting Profession Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Profession	✓	✓	N/A	N/A	N/A	✓

N/A = Not Applicable

The particular characteristics encountered in the Greek case, taken together with the short period of time between the liberalisation of the auditing profession and the data of the current study, do not provide any strong anticipation about the impact of auditing profession on the level of voluntary disclosure.

3.8 Taxation

Taxation is a particularly influential factor in Greek accounting and financial reporting. The taxation system changes quite frequently since there are continuous

amendments according to fiscal needs. It is of primary interest to preparers because it is run on a basis of stiff penalties. However, there is an interrelation between tax rules and accounting rules since accounting rules are the only basis for recording transactions and reporting. Although the implementation of the Fourth Directive harmonised further conflicts of financial reporting between tax and accounting law, there are still divergences between the two sets of laws.

There is a wide range of separate taxes and also a wide expanse of tax evasion which makes the tax system to seem ineffective. Ineffectual tax administration and the existence of a black market economy have a direct impact on the structure of the taxation system as related to accounting (Leventis, 1998). The majority of tax revenues are based on indirect taxation. The most important source of direct income is the income tax which refers to both individuals (Law 3323/55) and legal entities (Law 3843/58) as amended by Law 2065/92. Individuals and domestic legal entities are subject to tax for all sources of income. Foreign companies and non-residents are subject to tax for the income gained in Greece (Papas, 1993, p.56).

Taxable income is not exactly the same as accounting income according to the General Accounting Plan. However, the difference is not material. The Code of Books and Records is another influential tax law which prescribes bookkeeping for tax purposes. All companies are obliged to undertake tax audits by the group of state tax auditors. However, the limited number of this group, the complexity and long-lasting audit process forced governments to offer tax amnesties which are still active at present, in return for a standard payment (Papas, 1993, p.57).

3.8.1 Taxation as Related to Accounting Information Issues

Taxation is particularly influential on the Greek accounting system. Tax and reporting rules are significantly inter-related. Tax authorities have set very detailed rules for the determination of taxable income which affects listed companies directly and imposes uniformity on financial reporting. That impacts on accounting because managers do not have the flexibility to choose accounting rules that are more informative or reflect better the '*true and fair view*' of the accounts since they are concerned to follow tax rules to avoid penalties.

The effect of taxation on disclosure could be viewed in relation to political costs since compliance with tax rules eliminates possibilities for state interference (Table 3-9). Legitimacy has some relevance here since good citizenship is regarded as meeting obligations to tax authorities.

Table 3-9: Taxation Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Taxation	N/A	N/A	N/A	✓	✓	N/A

N/A = Not Applicable

Therefore, the effect of taxation on external reporting is to impose constraints of secrecy on the extent of voluntary disclosure.

3.9 Management

The management culture is argued to be an important determinant of business operation and accounting disclosure practices (Belkaoui, 1990). Differences in value orientation of managers are expected to have a direct impact on disclosure polices (Jaggi, 1975). Managers with a universalistic value orientation[21] are expected to be more sensitive about disclosure matters compared with managers characterised with particularistic value orientation who are not expected to recognise the information needs of the society or any particular group (ibid.).

Greek management is characterised by concentration of power and control in the hands of top management. The majority of Greek managers perceive their companies to be dominated by centralised power and bureaucratic roles which reflects the autocratic nature of Greek industrialists (Bourantas et al., 1990). Another characteristic is the lack of modern systems to support strategic decisions[22] like management information systems (Papalexandris, 1987).

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[21] Universalism has been defined as a value orientation toward institutionalised obligations to society, and particularism is a value orientation toward institutionalised obligations of friendship (Zurcher, L.A., Meadow, Jr.A., Zurcher, S.L., 1965, cited in Jaggi, 1975).

[22] Bourantas (1988) claimed that only 11% of Greek companies systematically used qualitative forecasting methods and only one in three analysed its strengths, weaknesses, opportunities, and threats.

There seem to be significant differences between private sector and public sector managers and also between managers of multinationals and Greek-owned enterprises since the latter tend to follow less rational processes owing to less efficient information systems (Bourantas and Papadakis, 1997). Moreover, Bourantas and Papadakis (1997) report on the negative association between Greek ownership and financial reporting and the use of formalised rules during decision making, which implies that Greek-owned firms rely less on formal financial reporting activities. Individual characteristics may be another determinant of disclosure decisions which may influence managerial attitudes and legitimacy and so orientation towards universalism or particularism. That in turn may affect disclosure practices and the level of voluntary disclosure.

3.9.1 Management as Related to Accounting Information Issues

Greek management is considered to be relatively underdeveloped in comparison with most nations within the EU. However, forces of convergence have been particularly strong over the past fifteen years, where EU membership has been the major catalyst. This relative underdevelopment, in association with inefficient management information systems and relative managerial attitudes on legitimacy and transparency, tends to have a negative influence on voluntary disclosure. However, the difference of managerial value orientations amongst different firms is expected to derive significant diversion in the level of voluntary information between different companies.

The effect on voluntary disclosure of lack of professional managers in the European standards and the relative lack of a variety of established corporate practices in developed capital markets (e.g. contracts) could be related to the agency model. Inefficient MIS may also have implications for signalling effects. Perceptions of legitimacy, relative sophistication of signals and objectives to capital market or foreign operations may also be of some relevance (Table 3-10).

Table 3-10: Management Influence as Related to Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Management	✓	✓	N/A	N/A	✓	N/A

Overall, the status of Greek management is not anticipated to have provided strong incentives for sophisticated reporting issues (voluntary disclosure).

3.10 Societal Culture and Accounting

It has been argued that culture is a significant determinant of accounting systems (Gray, 1988; Perera, 1989). Societal values may be relevant to the accounting system (Gray, 1988). The values attributed to Greece by Hofstede (1980) are shown in Table (3-11). Gray (1988) classified Greece in the group of Near Eastern, characterised by strong conservatism and secrecy and moderate statutory control and uniformity. This particular context suggests negative influence on levels of voluntary disclosure.

Table 3-11: Scores and Rankings for Greece

Individualism vs Collectivism		Large Power Distance vs Small Power Distance		Strong Uncertainty Avoidance vs Weak Uncertainty Avoidance		High Masculinity vs Low Masculinity	
Score	Rank	Score	Rank	Score	Rank	Score	Rank
35	22	60	26-27	112	53	57	32-33

Source: Hofstede (1980)

However, it is difficult to classify Greece as belonging to any one of the clusters of countries suggested since Greece is expected to have moved to different accounting values[23] (Loutridis, 1999). However, strong uniformity and secrecy (ibid.) are still considered to be high which gives rise to an expectation of low levels of voluntary disclosure.

3.11 Applicability of Theory Based on Greek Institutional Characteristics

The main purpose of this section is to provide a critical evaluation of the relative usefulness of theories of voluntary disclosure based on the particular institutional characteristics of Greece, as they are analysed in this chapter. Thus, this section aims

[23]Hofstede's study was carried out in a period when the level of industrialisation, growth rate, and the level of disposable incomes were very low in Greece. There was a high level of unemployment and a significant immigration trend to industrialised countries. The level of education among employees, managers and entrepreneurs was low. The civil war had recently finished, and the political situation was unstable and lacking the basic elements of democracy. The situation is quite different today. Greece is a member of the EU, and education and the level of development have been both improved significantly. Furthermore there is a satisfactory level of political stability and democracy (Bourantas, 1988).

to relate theoretical expectations discussed in chapter 2 with Greek characteristics and set an agenda within which empirical results can be discussed and interpreted. Therefore, agency, signalling, capital need, political costs, information costs and legitimacy are further discussed as a contribution to understanding the applicability of disclosure theories in emerging markets.

The separation of ownership and control in listed companies, lack of transparency in transactions (Travlos, 1995) and increased information asymmetries in the financial market may have agency implications. However, agency costs may appear of lower strength in the case of Greece compared to the majority of developed capital markets for a range of reasons. While most Greek companies are small-sized and family-owned and managed, a public offering requires only 25% of the outstanding share capital which is significantly lower when compared to international capital markets. Moreover, specific cultural norms such as values of trust between family members may not provide very strong incentives for sophisticated monitoring devices between family members. Agency theory assumes that market participants are rationally wealth maximisers and the market operates efficiently. That has many further implications for market discipline, as proposed by Fama and Jensen (1983a, 1983b). Although the wealth-maximising function has been questioned in the literature (Puxty, 1985), the rationality may be of particular attention in emerging markets where the sophistication of market participants is not very high (Keane, 1993), particularly in inefficient markets such as the ASE (Alexakis, 1992). That may also suggest that market discipline, namely the market for managerial skills, the market for corporate control and the market for corporate securities may not be particularly strong. Additionally, the small size of the market and the relative lack of sophisticated managers (3.9), the lack of hostile acquisitions (3.5) and the inefficient pricing efficiency of the ASE (Alexakis, 1992) suggest that agency implications may not be exactly similar to those expected from theoretical propositions (2.4.2) or occuring in developed capital markets (e.g. US). Overall, although agency may be of some relevance in Greek listed companies, the relative applicability to voluntary disclosure is not expected to be particularly strong.

Signalling has been theoretically suggested to be a mechanism by which companies reduce information asymmetries in markets (Akerlof, 1970). While information asymmetries have been explained as being quite high in emerging markets, including the ASE, signalling has been found of little relevance in such markets (2.8). Especially in the ASE where heavy shareholder concentration and family ownership take place, wider signalling effects have been found to be less direct when compared to other countries (Tsangarakis, 1996). Moreover, the existence of less sophisticated market participants, inefficiencies in the market, the relative inactivity of the ASE before 1990s, the predominance of private disclosure and uncertainty in the credibility of corporate signals all may suggest that signalling may not be very strong in voluntary disclosure. However, it should not be taken explicitly that signalling effects do not occur in the market. They may relate to management policies other than direct disclosure (e.g. dividend policy). Moreover, considering the rapid development of the ASE, signalling effects may become stronger over time. In brief, the particular characteristics encountered in the Greek case taken together with the relatively newly developed capital market do not provide a strong expectation of direct signalling effects.

Capital need relates voluntary disclosure to market forces in relation to the reduction of risk and cost of capital. While the ASE has been inactive the last 120 years with few companies being listed, since the majority of companies were financed mainly by debt rather than equity, the significant changes that occurred in the 1990s may provide sound grounds for capital need implications in voluntary disclosure. Therefore, the improvement in macroeconomic fundamentals and the decrease in interest rates, the award of the Olympic Games 2004 to Athens, the modernisation of the ASE, the establishment of new markets and enactment of further regulation, plus structural changes in the banking sector, all enhanced the attractiveness of the market. Moreover, privatisation schemes of state companies, the impact of Dellors II which urged companies (mainly construction companies) towards an ASE listing, tax incentives and further developments in the Balkans and Eastern European countries (markets that had traditionally good commercial relations with Greece) created many investment opportunities. Further measures to rationalise the market increased

market transparency. Thus, during 1997 many companies became listed on the ASE or raised finance, share turnover increased rapidly, the general index of the ASE increased by 60% in 1997 over the average for the previous year, private companies became more dependent on equity finance, public and institutional investors increased significantly their investment activity, investment companies flourished and, as a result, market participants became more sensitive to information issues. Thus, increased capital needs during this period may provide strong grounds to explain voluntary disclosure.

Political costs theory explains voluntary disclosure as a procedure of minimising state intervention in corporate matters (2.4.3.1). Although the theory is not specific about the relation between political costs and accounting disclosure, the literature has favoured a positive association between politically sensitive companies and levels of accounting disclosure. Political costs theory assumes some specific institutional and regulatory systems (US) where corporate activities are widely researched and policed and strong regulatory bodies have the power and the will to impose constraints in corporate activities which may not be exactly similar elsewhere, especially in emerging markets. Although the economic and accounting environments of Greece have been widely politicised, there has been no published case of government intervention in larger companies in such terms as imposing higher taxes or price controls or additional disclosures. The lack of a watchdog committee (equivalent to the Financial Reporting Review Panel in UK or the Securities Exchange Commission in the US) to examine annual accounts reduces even further the possibility of political attacks. Moreover, political costs effects are more likely to occur in utilities, since they are companies more in the public eye and they have a wider impact on average customers. Most Greek utilities were unlisted state companies until 1997 which provides some further considerations about the explanatory power of political costs grounds in explaining voluntary disclosure. Overall, although political costs theory may be of some consideration in corporate accounting policies, it is not expected to be of high relevance in explaining voluntary disclosure in Greek annual reports.

Information costs theory explains voluntary disclosure in terms of direct and indirect costs factors (2.4.3.2). While the theory is clear about the relation between direct costs and voluntary disclosure, it becomes more hazy on the association of indirect (proprietary) costs and voluntary disclosure. Thus, companies that confront lower direct costs are expected to disclose higher levels of voluntary disclosure. These companies in the case of Greece are the largest companies in the market. These companies are expected to have more efficient accounting information systems and therefore the procedure of gathering, possessing and disseminating accounting information becomes less costly. Moreover, most of these companies produce various types of information for internal reasons and therefore publishing information appears less costly. It has been suggested that large companies fear proprietary costs less than small companies (Dye, 1985). However, proprietary costs are strongly related to other factors such as industry structure and competition. While Greek chemical companies may be expected to fear competitive disadvantage costs through the nature of their business, any direct expectation about voluntary disclosure in highly competitive industries (e.g. food and spirits sector) or industries with high barriers to entry (e.g. cement companies; e.g. operational licences, high tangible assets) it would be speculative to form. Overall, information costs theory is expected to be of strong relevance to voluntary disclosure published by Greek listed companies.

Finally, legitimacy relates voluntary disclosure to pressures on socially desirable corporate behaviour. Legitimacy assumes that companies have a propensity to be socially responsible and to care about the welfare of the society. This condition may not apply for all companies in some emerging markets, especially in less developed countries. Moreover, since legitimacy is a function of the wider public policy process, it depends crucially on issues related to social awareness and the influence of labour unions, watchdog committees, customers protection and environmental groups, and to a lesser or greater extent on the perceptions of 'democratic imperative'. Thus, the extent of democracy in society and the way the political system may operate are expected to influence legitimacy implications. In Greece political stability and democracy in the modern state is a feature of only the last 25

years. Moreover, the increased state concentration on business and the existence of a very wide black economy may have provided grounds where good corporate citizenship is regarded mainly as requiring compliance with existing regulations and particularly with meeting tax obligations. Furthermore, domestic environmental groups and watchdog committees are not very active, while customer protection groups are at early stages of development. The strength of labour unions varies across a range of companies and industries but in general, is strong enough in state owned companies and utilities. However, it seems that legitimacy matters are more important compared to previous years. These issues will appear to be of more interest in the following years owing to the increasing legislative developments of the European Union and the European Economic Area that require greater corporate social responsibility and accountability (Gray et al., 1996). Based on the above discussion, legitimacy may be of some relevance only to a few listed companies which may face a great likelihood of adverse reactions in the wider public policy although it is not expected to be of particular relevance overall.

In summary this section has discussed the applicability of theories of voluntary disclosure in relation to Greek institutional characteristics. While agency, signalling, political costs and legitimacy were expected to be of some relevance, although not very strong, capital need and information costs were concluded to be of high potential usefulness in explaining voluntary disclosure. This section contributes to the wider debate on the applicability of theoretical frameworks in emerging markets and sets a foundation on which empirical results can be explained.

3.12 Summary and Conclusion

The purpose of this chapter was stated as discussing institutional factors that are influential on Greek financial reporting. At the same time, this chapter has provided the necessary institutional background which is essential for a better understanding of the operation of voluntary disclosure. The potential impact of institutional factors on voluntary disclosure was discussed in terms of theoretical frameworks of voluntary disclosure. An evaluation of each institutional factor on voluntary

disclosure is reported at the end of each section. The institutional factors influential to Greek accounting and voluntary disclosure were discussed as follows.

The Greek political system (3.3) provides a basis for strong intervention in accounting regulation and enforces uniformity in accounting practices. It also impacts on the legal, tax and economic systems which are strong determinants of Greek accounting. The legal system (3.4) is a particularly influential source of financial reporting since it prescribes rules that have to be followed and they constitute the only acceptable accounting behaviour by regulatory bodies. '*True and fair view*' is justified only by compliance with the law. It does not seem likely that the structure of the economic system (3.5) has advanced the level of accounting sophistication. The family ownership structure of Greek companies and the relatively underdeveloped economic environment have not hitherto provided much scope for advanced information systems. However, current developments (e.g. privatisation schemes, improvement of macroeconomic fundamentals) are expected to impact on the further development of the accounting system.

The operation of the financial system (3.6) is seen as a strong determinant of voluntary disclosure. The predominance of the banking sector, heavy reliance on debt finance, stock exchange structural inefficiencies and the relative underestimation of equity finance all have a direct influence on the objectives of the financial statements. However, the rapid development of the ASE over the past five years and significant institutional changes within the capital market have influenced the general improvement of the information accounting systems and, in turn, of voluntary disclosure. The accounting profession (3.7) does not seem to have an impact on sophisticated information strategies, considering its relative size, underdevelopment and the particular approach taken by the liberalisation process. Taxation tends to be one of the factors most influential on financial reporting since it is the primary objective of financial statements and it is run on a basis of stiff penalties. Finally, management (3.8) and societal values (3.9) have been discussed in relation to their influence on financial reporting issues.

This chapter (3.11) has also outlined the relation of institutional characteristics with theories of voluntary disclosure in the Greek milieu (Table 3-12). There are agency implications in family ownership, lack of transparency in transactions, predominance of debt finance, extensive use of bearer shares, takeover activity, information inefficiency, and the particular structure of corporate legislation. Signalling effects have been discussed in relation to strong information inefficiencies, peculiarities of information releases, heavy shareholder concentration, share listing impact and credibility of signals. Capital need theory has been related to the political and economic systems and mainly to the financial system in terms of the increasing trading activity and share issues during the recent years. Political costs theory was analysed by reference to the political, legal and financial systems and taxation since deviations from accounting rules are regarded as increasing chances for imposition of penalties. Legitimacy was analysed mainly in terms of political and legal systems and taxation since corporate citizenship is regarded mainly as requiring compliance with existing regulations. Finally, information costs theory was related mainly to the economic and financial systems and also to the impact of the accounting profession.

Table 3-12: Institutional Characteristics and Theoretical Frameworks

Systems	Agency	Signalling	Capital Need	Political	Legitimacy	Information Costs
Political	✓	✓	✓	✓	✓	N/A
Legal	✓	✓	N/A	✓	✓	N/A
Economic	✓	✓	✓	N/A	N/A	✓
Financial	✓	✓	✓	✓	N/A	✓
Profession	✓	✓	N/A	N/A	N/A	✓
Taxation	N/A	N/A	N/A	✓	✓	N/A
Management	✓	✓	N/A	N/A	✓	N/A

N/A = Not Applicable

In conclusion, this chapter is a tool of analysis to be used in chapter 9 in the interpretation of quantitative results and in chapter 10 on the perceptions of influential individuals on relevant aspects. Some further analysis of the Greek legislation as related to financial reporting is provided in chapter 4 which analyses the existing regulatory framework in Greece.

CHAPTER 4

4. Accounting Regulation in Greece

4.1 Introduction

The purpose of this chapter is to discuss the requirements contained in the sources of regulation that apply to listed companies in Greece and to examine their implications for the supply of accounting information included in annual reports. This chapter provides the necessary background information and analysis to investigate the nature of voluntary disclosure (chapter 5) and to develop the voluntary disclosure index (chapter 7). Regulatory requirements under investigation are those relevant to the period covered by this research (1997) that relate to financial reporting issues.

Accounting regulation is defined as the imposition of financial reporting rules that govern preparation, content and form of financial reports by bodies other than preparers, organisations and individuals for which the reports are prepared (Taylor and Turley, 1986, p.1). The Greek accounting regulation system consists of the rule-issuing bodies, the process of preparation and issuance of accounting rules and the particular sources of legislation that contain guidelines for accounting policies.

This chapter is organised as follows: the development of accounting regulation in modern Greece is introduced in 4.2. Section 4.3 presents the main rule issuing bodies. The process of accounting regulation is outlined in 4.4. Sections 4.5, 4.6, 4.7 and 4.8 provide the necessary background for specific disclosure requirements included in the General Accounting Plan, the Company Law, the Code of Books and Records and in the ASE requirements. Discussion of particular regulatory issues is presented in 4.9. Implications of regulation for annual reports are discussed in 4.10. Finally, summary and conclusions are presented in 4.11.

4.2 The development of Accounting Regulation in Greece

The modern history of accounting regulation in Greece may be divided into three major periods. The first, 1821-1917, was characterised by a relative absence of state

intervention in accounting matters. This is the period of *laissez-faire* in Greek accounting and it is related to the wider existing socio-political context (Caramanis, 1996, p.39). The second, 1918-1974, covers the period characterised by thrusts of state intervention and imposition of national accounting standardisation. The third period, 1975 to date, covers the period of accounting standardisation by the operation of the General Accounting Plan and subsequent implementation of laws and European Directives.

During the period 1821-1917, the French Napoleonic Code, which established the basic principles of commercial activity, was adopted (1838). As a result, the form of limited liability was established in the Greek economic milieu by the introduction of the joint-stock company (Societe Anonyme, SA-the equivalent of public limited company). The largest industrial and commercial enterprises adopted this new form. However, it has been argued that limited liability was imposed by legislation rather than as an outcome of economic development (Pamboukis, 1989, p.12) since enterprises adopted this form to take advantage of direct tax advantages. Accounting was restricted to recording transactions in order to keep track of cash. Systematic bookkeeping or official books were not part of commercial practice (Venieris, 1999). However, severe inefficiencies in the corporate system which resulted in many frauds, as well as to major economic problems during this period, made the need for accounting regulation indispensable (ibid.).

The state increased regulation during the period 1918-1974. The first law introduced in 1918 (Law 1348/18) regulated the estimation of profits, issues related to the operation of joint-stock company and the preparation of financial statements, since there had been many cases where companies had never taken inventory, had distributed fictitious profits and had presented misleading and deceptive financial statements (Caramanis, 1996, p.42). However, it was not until 1920 that a detailed legal framework was established to regulate accounting measurement and reporting policies. The Law 2190/20 was particularly influential and by subsequent amendments remains in effect. Systematic bookkeeping and official books and records were regulated by the Legislative Decree 578/1948 and by the Tax Data Law

in 1952. Considering the tax nature of these laws it is not surprising that financial reporting adopted a strong tax orientation.

The third period (1975 to date) is characterised by rapid developments in the Greek accounting system. The establishment of the General Accounting Plan (GAP) in 1980 imposed accounting uniformity and is considered to be a material step in the rather underdeveloped accounting practice existing at the time. Moreover, the implementations of the European Directives impacted significantly on accounting. Finally, growing amendments to tax and accounting laws, efforts to align tax and accounting provisions and also the development of stock exchange regulation are all developments in the direction of increasing sophistication in the accounting system.

In conclusion, the development of accounting regulation in Greece is closely bound up with the development of accounting itself. State intervention during the second and third periods could be justified in terms of enhanced efforts to improve corporate governance, accountability, economic efficiency and also tax collection. Regulation relating to the third period (1975 to date) is further analysed.

4.3 Rule Issuing Bodies

Accounting regulation in Greece is formed and managed by the government. Legislation provides the accounting policies that companies have to follow. The most important sources of accounting legislation are the Company Law (2190/20), the General Accounting Plan (GAP) and the tax law. In contrast to the established practice in the Anglo-Saxon countries (e.g. UK and US) and to the IASC, Greek accounting standards have not been written by subject (e.g. IAS 14-segment reporting) in a completed way but they exist in many Greek texts of accounting regulation. There are distortions when different laws prescribe different rules for the same item which makes decisions on accounting policies particularly difficult[24].

[24] For example, divergences between accounting law and taxation (e.g. deprecation, creation of reserves and provisions).

The fundamental characteristics of the sources of regulation are discussed in the following section in order to provide some broad understanding of regulatory process and also to obtain insights into issues relevant to accounting information. The major rule issuing bodies are the Parliament, and the Ministries of Finance, Trade and the National Economy. Bodies influential on accounting regulation are the National Council of Accounting (ESYL) the Accounting Books Committee (ELB) and the Committee for Resolutions of Accounting Disputes (EELD). These bodies mainly provide amendments and interpretations to existing law.

4.3.1 The Parliament

The main characteristics of the Greek Parliament have been discussed in 3.3. Financial laws are introduced only by the government (Papas, 1993, p.4). The President of Democracy puts into effect and publishes the acts that have received a majority vote in the Parliament. Moreover, there are cases where, following a proposal by a relevant Minister, the President of Democracy issues acts (PD, Presidential Decrees) that have the force of a law. Presidential Decrees follow broad concepts of laws already passed and they aim to define, implement and interpret those laws.

4.3.2 The Ministries of National Economy, Finance and Trade

The Ministerial Decisions issued by the Ministers of National Economy (MNE), Finance (MF) or Trade (MT) have the force of law. Ministerial Decisions may be issued after the law is passed in the Parliament, or they may be issued before the final draft of a law, to be included within the law (Venieris, 1999, p.160). Especially influential are the interpretative circulars that are issued by the MNE, MF and MT. They provide interpretations and detailed explanations of provisions that are regarded as being controversial or blurred. Considering the broad nature of many accounting laws, these circulars are very enlightening since they prescribe accounting policies that have to be followed by enterprises. These circulars lead to the introduction of new standards and they have the force of law (ibid.).

4.3.3 The National Council of Accounting (ESYL)

ESYL was set up in 1988 (Law 1819/1988) to meet a dual role in the accounting system. It is the guardian of the GAP and also provides advisory services to the government. The major function of ESYL is to ensure that the GAP corresponds to existing needs (Ballas, 1994). It also makes recommendations to the MNE, MF and MT on issues relevant to GAP and the necessary amendments, and also offers advice to relevant ministries on matters related to accounting education and standardisation.

The operation of ESYL secures the active application of GAP and also ensures its continuous development according to evolution in business and accounting (Sakellis, 1990). ESYL also has the responsibility to prepare special new plans for industries that necessitate special provisions because of their specific features. ESYL issues opinions on various topics of financial reporting (438 opinions until 31/12/1997). These opinions are backed by legislation and they have the force of law (Neal, 1997, p.382).

4.3.4 The Accounting Books Committee (ELB)

The main objective of ELB is to provide guidance on the interpretation of the Code of Books and Records and also to solve various problems that may arise at the application of the Code. The ELB is particularly concerned about bookkeeping issues. Because in the bookkeeping process there are controversial issues between the tax authorities and professionals, the ELB is indented to judge on these requests. That is especially true for some industries and small enterprises (Venieris, 1999). Moreover, there are cases when professionals apply to the ELB to seek approval of diminished reporting requirements (Marinis and Tzimas, 1998, p.940). The opinions of ELB refer to single cases. However, these opinions tend to have a broader effect since the Committee tends to follow the same rationale in similar cases.

4.3.5 The Committee for the Resolution of Accounting Disputes (EELD)

Law 1819/88 established the EELD which is a quasi-judicial body. The Committee is responsible for the resolution of differences of opinion on the application of the Accounting Plan and also the opinions issued by ESYL (Ballas, 1994). However, the EELD has not met expectations, since disputes on the application of GAP have been

resolved by administrative courts. This was later established formally by Law 1882/1990 and PD 186/92 (Venieris, 1999).

4.4 The Process of Regulating Accounting

Since the dominant objective of accounting has been related to fiscal issues, accounting regulation has been formed by legislation. The government had the ultimate control of accounting regulation which was formatted according to fiscal needs, ignoring quite often the needs of other interested parties. Considering the strong association between financial reporting and tax assessment, it is evident that the government did not wish to relinquish control. Furthermore, many other problems (e.g. frauds, information inefficiencies, tax evasion), discussed in 4.2, forced subsequent governments to impose a system of accounting uniformity which was backed by a system of stiff penalties for non-compliance.

Economic liberalisation programmes, economic development, banking liberalisation and development, changes in the accounting profession, increasing importance of the ASE, and pressures of international competition (discussed in chapter 3) during the 1990s gave a purpose to financial reporting beyond the purpose of tax assessment. Thus, the importance of the various needs of users began to challenge the regulatory requirements. Membership of the EU has been a landmark in the Greek regulatory system because the implementation of the European Directives introduced specific accounting policies and advanced the relatively underdeveloped accounting system (Venieris, 1999). Accounting harmonisation with EU countries became another purpose of accounting, contrary to the traditional single purpose of taxation.

In conclusion, the Greek accounting regulatory system has special characteristics in many respects. The role of the state is extensive and central to the development of accounting regulation. This could be explained in terms of institutional characteristics, namely the underdeveloped nature of the economy, the capital market, the accounting profession and the strong reliance on tax collection (3.12). Institutional developments provided some changes in the traditional nature of accounting regulation with various needs to be of more consideration in the

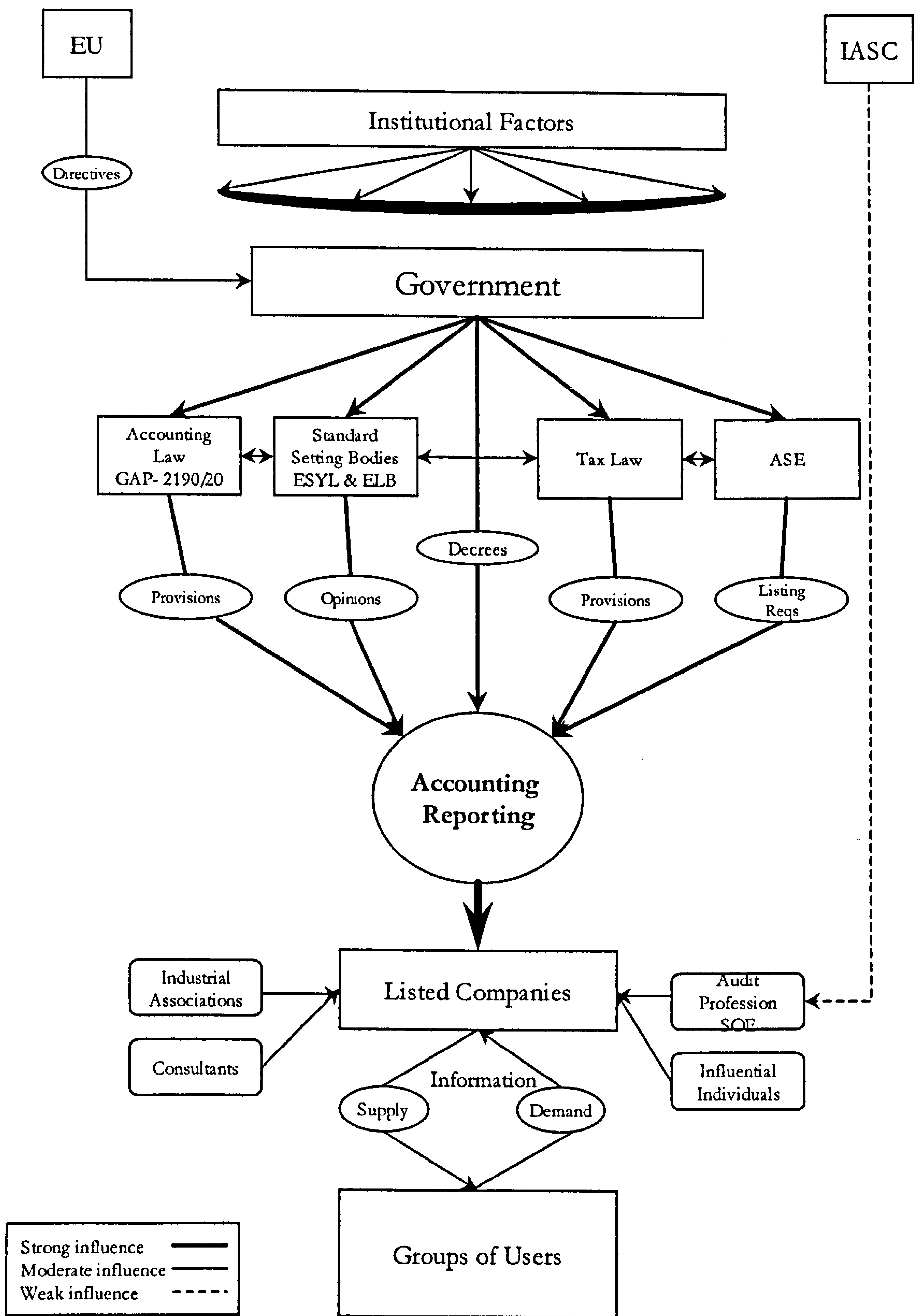
objectives of financial reporting. However, the government still has the dominant role in the regulatory process, taxation still remains the basic objective of accounting regulation and so financial reporting has a strong tax orientation (Ballas, 1994). A general overview of the regulatory system as it applies to listed companies is provided in Figure (4.1).

4.5 The General Accounting Plan (GAP)

The implementation of the GAP in 1981 has been a significant point of financial reporting in Greece (Grigorakos, 1996, p.29). The GAP incorporated the EU Directives and also the requirements of the Company Law (2190/20). The GAP changed dramatically the quantity and quality of accounting information produced by Greek companies. Accounting was previously characterised as tax orientated, inadequate in many respects and lacking common valuation rules and terminology, which reduced the comparability and credibility of accounting reporting (Papas, 1993, p.88). Therefore, accounting information was of little value since financial analysts could not easily assess the financial position and investment decisions were difficult to make. These limitations were realised during the 1950s and efforts to prepare a system of uniform accounting, apparently a General Accounting Plan, dated from 1954 when the first Committee was established. However, the first Plan was not completed until 1980 (Papas, 1993, p.88). The GAP was significantly influenced by the French *Plan Comptable General* which was translated in 1957 and studied extensively as a basis for the formalisation of the Greek GAP. Moreover, French academics and professional accountants were invited and consulted on the same aim (ibid.). Thus, the application of the GAP aimed to enhance credibility and comparability of accounting numbers, to support a more reliable assessment of financial position and operating performance of companies and also to assist the development of a fairer and more efficient taxation system (Sakellis, 1993, p.39-42).

Initially, only those parts of the GAP that refer to the presentation of the financial statements were mandatory. However, Law 1882/90 made the complete GAP mandatory for companies audited by members of SOL (Ballas, 1994).

Figure 4-1: Regulatory System in Greece



The GAP ensures accounting uniformity by prescribing the titles and numbering of accounts that should be used for the preparation of the financial statements. The layout of these statements, the movements of accounts and also valuation rules are specified in great detail. Finally, the GAP provides management accounts which are regarded as useful for decision making and internal reasons to preparers (Ballas and Venieris, 1996).

The Plan also prescribes the financial statements that should be prepared. These are the balance sheet, profit and loss account, the table of appropriation of profits, the statement of operating income and the notes which all should be prepared following specific models[25]. Although the statement of operating income should be prepared there is no prescription that it be published. Therefore companies, following the fourth part of the GAP, prepare and publish the balance sheet, profit and loss account, table of appropriation of profits and the notes in such a way that ensures a 'real picture' of the financial position and the operating performance.

In the light of the previous discussion it seems that the GAP enforces uniformity in financial statements which has a direct implication for the level of disclosure provided by companies. Although the prescription of certain accounts may be viewed as a restriction on the potential will of companies to be more informative, a knowledge of the Greek reality before the imposition of the Plan does not support such a claim (Venieris, 1999). Furthermore, the implementation of the GAP increased substantially the quantity, quality and credibility of accounting disclosure (Sakellis, 1990, p.809). The cash flow statement is not prescribed by the Plan.

4.6 The Company Law

The Company Law, known as 2190/20, first approved in 1920, is the law that governs the legal operation of Societes Anonymes (Perakis, 1992, p.20). This law is

[25] The balance sheet should be prepared according to the model of §136.7 of the GAP, the profit and loss account according to §138.4 and the table of appropriation of profits according to §139.3. Since notes are prepared according to the provisions stated in the Company Law (2190/20) they will be analysed in 4.6.

extensive, consisting of 19 chapters and 133 articles, and has been amended many times in order to align with new developments. The Law 2190/20 has subsequently incorporated the European Directives and is in general compliance with GAP whereas there are still some distortions with the tax law. The Law 2190/20 states that the financial statements should be prepared in a concise way in order to represent the '*real picture*' of the financial position and operating performance of the company and additional information should be provided when needed (Art.42a, para 2). The Law sets out the basic conventions and principles on which financial statements should be prepared. Departures from those principles should occur only to justify the '*real picture*'. They should be rare and they should also be disclosed and explained in the notes (Art 42a, para 3; Perakis, 1992).

4.6.1 Financial Statements Required

The Law states that a balance sheet, profit and loss account, table of appropriation of profits and the notes should be prepared. The Law (art. 43c) requires that the balance sheet should have a horizontal format though the other statements should follow a vertical one. The same article (art. 43c) states that the balance sheet, the profit and loss account and the table of appropriation of profits should be prepared according to the provisions stated by the GAP (Perakis, 1992).

The notes are prescribed by the Law 2190/20. Moreover the Law presents basic guidance for the accounts. The notes were introduced in Greece by the implementation of the Fourth Directive and incorporated in the Law 2190/20. Previously, they did not exist in a formal sense and were used privately and rarely, which made difficult the identification of principles or rules applied (Robinson and Venieris, 1996). Although the format of the notes is not prescribed there have been proposals for a standardised format of notes. The most influential seems to be the format proposed by the GAP Study Group[26]. In practice the format of notes is quite standardised since listed companies follow the proposals of SOE.

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[26] Mr I. Andritsogiannis (President of the GAP Study Group) submitted this format to the Confederation of Societes Anonymes and Limited Liability Companies in May, 1987.

The management report is also required to be prepared with the annual accounts (art.43a, para 3a). It should present a *'real picture'* of the operations and the financial position as well as forward-looking information and information on the research and development activities. It should also refer to any significant post balance sheet events, investments in securities analysed by type, amount and price per unit, currency analysed by type and average cost, buildings and fixed assets analysed by unit, category, location and acquisition cost, indicating any secured obligation. Auditors have to verify that the management report matches the relevant financial statements. In order to do that the management report should be submitted to the auditors 30 days before the general meeting. Financial statements have to be signed by the chairman, the chief accountant and the general manager (Perakis, 1992).

Companies meeting the criteria of art.42e, para 5 are obliged to prepare and publish consolidated financial statements. The consolidated statements which should present a composite whole (art. 100, para 1) consist of: (i) the consolidated balance sheet, (ii) the consolidated profit and loss account and (iii) the notes. This means that groups do not have the obligation to report a consolidated table of profits appropriation which is mandatory in individual accounts, though they have to disclose a consolidated management report. Consolidated statements should be prepared consistently and should also give a *'real picture'* of the financial position and the operations of the group[27].

4.6.2 Publication Requirements

The publication requirements of the financial statements are also prescribed in detail by the Law 2120/20. According to art.43b, the financial statements should be published and submitted to the Ministry of Trade at least 20 days before the general meeting. The general meeting, according to art.25a, should be held within six months of the year-end. The Board of Directors is also responsible for publishing the balance sheet, profit and loss account and the table of appropriation of profits in the Government Gazette (Issue of Societe Anonyme Companies and Limited Liability Companies) at least 20 days before the general meeting. These statements should

[27] For more information on Greek consolidated accounts see Leventis (1998).

also be published in a daily political newspaper and in a financial newspaper, according to art.26 para 2. If the company is not located in the prefecture of Athens, then the financial statements should be published in a local newspaper according to art. 26, para 2. Financial statements should be ready and available at least 10 days before the general meeting standby for the shareholders (art. 27, para 1). Financial statements, after their approval from the general meeting, should be submitted to the Ministry of Trade with a statement of the proceedings. These statements should be signed by the chairman, the executive director and the chief accountant (Perakis, 1992).

In conclusion, the Company Law (2120/20) has been a very influential factor on the Societes Anonymes in terms of accounting disclosure matters and it is still a strong determinant of accounting disclosure practices. The Law 2120/20 provides guidance on issues related to disclosure requirements and preparation of the financial statements, although it delegates authority to GAP for the formation and specific prescription of items that should be disclosed in published financial statements. Furthermore, the Law 2190/20 specifies the items of the notes and the management report, and also prescribes in considerable detail rules about the process of publication of the financial statements.

4.7 The Code of Books and Records

An influential tax law, which is particularly concerned with accounting disclosure issues, is the Presidential Decree 186/92, known as the Code of Books and Records. The Code replaced the Tax Data Law in 1992 and it prescribes in considerable detail the way that companies should manage their bookkeeping obligations. In particular, books and records, certain invoices and specific accounting procedures are prescribed.

The Code states that companies should keep the period of 12 months as the legal fiscal period, which may be extended only by companies in the third category of accounting books. The year-end of all the companies is either 31 December or 30 June (art. 26). The Code specifies that financial statements should be presented

according to the forms specified by the GAP (art29. para 1). The Code is of special importance to preparers because it states penalties for inadequate disclosure (art.32-34) and also outlines the penal and administrative sanctions resulting from inadequate or misleading information (art 35). Tax law dominates the provisions of the accounting laws because it is approved by Parliament (see 4.3). Moreover, most of the firms follow the provisions of the tax law because failure to comply with tax regulations results in significant penalties, whereas failure to comply with the requirements of the Accounting Plan have practically no effect (Ballas, 1994).

4.8 The ASE Regulation

The main ASE requirements related to this study are the following:

4.8.1 Listing Requirements

Companies seeking a listing have to meet the criteria specified by PD 348/85, PD 350/1985, Law 1806/1988 and subsequent decisions of the ASE BoD. These provisions are briefly reviewed as stated in the ASE (1997) bulletin of listing requirements:

- Companies should be joint stock companies (Societe Anonyme S.A.), with a net equity of GRD 1 billion or ECU 3.5 million for at least two years before listing application. Companies should prepare an Exemplary Prospectus.
- Companies should have published financial statements for the last five years before the listing application, which should have been audited by chartered accountants, and they should demonstrate a satisfactory financial position and operating performance[28].
- They have to present a tax audit for the relevant accounting years. Companies under consolidation have the same obligation for tax audit.

[28] The CMC after having been consulted by the ASE Board of Directors may approve the listing of companies with a life span of less than five years, as long as their listing is beneficial for the company or investors, provided that investors are adequately informed for those companies. If the applicant participates in other companies which affect significantly its operations or has significant economic relations those companies should be audited by the body of Chartered Accountants.

- Share capital should be increased and public offering should refer to at least 25% of outstanding share capital. Shares distributed from media other than public offerings cannot exceed 5% of shares distributed by public offerings. The issue price of the shares distributed through public offering should not be higher than the issue price of shares distributed through other media.
- They have to sign an underwriting agreement with the principal underwriter of the issue and they are subjected to a legal, accounting and financial audit by an independent legal and financial certified auditor.
- There are additional requirements for construction, insurance, holding and passenger shipping companies.

4.8.2 Reporting Requirements

Reporting requirements of listed companies are stated mainly in PD 350/85. According to that regulation, companies should publish financial statements according to the provisions of the GAP and 2190/20 and these statements (including consolidated accounts) should be published as early as possible. These statements should provide a '*real picture*' of the financial position and the operations of the company. Additional information should be provided to the public, if it is considered necessary, in order to verify the '*real picture*'.

In addition to annual accounts, all listed companies should publish interim and quarterly accounts within two months from the fiscal year-end (Law 2533/1997). These accounts should be published in at least one daily newspaper. Failure to comply with accounts disclosure may result to penalties of up to GRD 50 million (PD 360/1985, art. 7). Moreover, shareholdings more than 10% should be stated in the ASE as any increase of greater than 1.5% should be stated during the first 12 months of the company's listing. All listed companies should also give notice of any future acquisitions or participations in other companies (ASE, 1998a).

Companies should disclose without any delay relevant information, not known by the public, which is expected to affect share prices. Companies listed on the ASE and one more foreign stock exchange, should provide the same price relevant information to Greek investors as to foreign investors. PD 51/92 requires acquisitions, transfers

and acquisitions of listed companies which result in the crossing of a threshold equal to or in excess of 10%, 20%, 50% or two thirds of the company's share capital to be reported to the ASE Board of Directors within 5 days. The public should also be informed within 5 days upon receipt of the aforementioned report. PDs 350/85 and 51/92 both require relevant publication in the Greek language in a daily political journal, in a financial journal and in the ASE Daily Official List. The ASE can decide against this publication if it feels it is against the public interest (ASE, 1998a).

4.8.3 Delisting

A company will be delisted from the ASE, under a relative decision by the CMC, if the following conditions prevail for a period greater than six months:

- The real transaction volume in the company's shares does not exceed 1% of the total amount of the outstanding shares or the company has negative equity for the last two fiscal years or it is insolvent or operates under a clearing process.
- The company does not comply with the existing stock exchange regulation or reporting obligations or members of the company's Board of Directors, managing consultants or other employees have been punished for non-compliance with the existing stock exchange regulation.
- The legal representatives of the company have been convicted for fraud, tax evasion or contraband.

4.9 Discussion of Regulatory Issues

In general four approaches to accounting regulation have been identified (Taylor and Turley, 1986): (i) regulation by the accounting profession, (ii) regulation by private sector regulatory bodies, (iii) regulation by governmental bodies and finally (iv) a mixed system involving aspects of all previous approaches. The foregoing description of the Greek regulation places Greece firmly in the third group. The Greek government enforces comparability and reliability of accounting statements by uniformity, imposed by the GAP.

The Greek regulatory system has a direct impact on voluntary accounting information through the special characteristics of legislation, which prescribe items

to be disclosed. Vague provisions, loopholes in disclosure requirements and inadequacy of legal structure may result in controversy over the relative nature of information items. Accounts represent a *'real picture'* only when they follow specific regulatory requirements (similarly to the French *'image fidele'*). That may not provide scope for extensive voluntary disclosure to the extent that the Anglo-Saxon *'true and fair view'* could justify. The regulatory system also impacts indirectly on voluntary disclosure through the established corporate framework, which influences relations between groups of users and thus impacts on agency costs, signalling effects and legitimacy matters. Issues related to the general meeting, timely information, credibility of financial statements, composition and representation of the board of directors are substantial for the meaningful illustration of voluntary information policies. A brief discussion of some of those characteristics follows.

Financial statements are approved by the shareholders in the general meeting. The law is somewhat hazy as to the formulation of the general meeting session (Sakellis, 1992, p. 74). That leads to inefficiencies which are more severe in the group of non-listed companies (ibid.). Listed companies follow a different policy in publication requirements from non-listed companies and for this reason listed companies are perceived as being more loyal and credible companies.

Formation of the board of directors is also important. The Greek Legislature or the ASE requirements do not separate the position of the chairman from that of the general manager (executive director). In practice, in many Greek companies this position is held by the same person. The legislature does not oblige companies to engage non-executive directors, and so this practice does not take place in Greece. The responsibility of the board of directors is the same for every single member. Minorities are not represented in the board since there is no relevant requirement. There is no requirement for related party disclosures. These characteristics tend to increase information asymmetries since the information flow is not well established legally and corporate relations may lead to transactions that may be kept secret from the majority of shareholders.

The ASE recognises (ASE, 1998c) that the information revealed to groups of users *'suffers'* from three major *'diseases'*. First is the restricted quantity of information provided, second is the asymmetrical provision of information in terms that institutional investors receive more and better information through various media and third, information provided may include misleading data (ibid.). However, the ASE has not increased substantially its regulatory provisions for fear of discouraging new listings, which has been the primary objective. That is considered a normal practice (e.g. Bhide, 1994).

The ASE has expressed the view that regulation is not enforced in the most efficient way since the ASE requirements are incomplete. The procedure by which the Board of the ASE is in charge of observing corporate irregularities, while the CMC is responsible for penalising them, diminishes further the effectiveness of the regulatory framework (ASE, 1998c). The ASE has recognised insufficient regulation in many areas of corporate governance, whose basic element is financial information, and has established a committee to investigate those issues in a period of 3-5 years starting in 1998 (ASE, 1998c). This will lead to new regulatory requirements imposed by a Presidential Decree (ibid.). Therefore, it is expected that items which are voluntary at the present time will become mandatory in following years. This indicates that the aim, results and interpretations of this study are active subjects in the ASE agenda, which may justify even further the importance of this study.

4.10 Implications of Regulation for Annual Reports

4.10.1 Discussion of Main Regulatory Implications

The annual report, as known in the developed capital markets such as those of the US or the UK, is not prescribed by the ASE Law, or any other law or any accounting standard or professional recommendation. No prescription of the annual report takes place in other countries (e.g. France; Depoers, 2000). However, listed companies publish reports annually, including the mandatory accounts prescribed by the aforementioned regulations, and also additional information exceeding mandatory requirements. These statements are mainly provided to shareholders in the general

meeting and financial analysts on request. This is an established practice in Greece which tends to have the force of a implicit code of good practice. Moreover, the fact that the annual report is provided in the general meeting, in order to meet legal obligations to shareholders, tends to enhance this implicit code. These characteristics lead to significant variation in disclosure practices.

Apart from the main regulatory sources that govern financial statements, various issues of financial reporting, relevant to annual reports, have been influenced by numerous opinions issued by regulatory bodies. However, vague provisions, loopholes in specific requirements, inadequate structure, lack of ministerial or professional directions and controversy amongst users in specific areas impact on the quantity, quality and nature of published information, or even on non-disclosure. These issues are explained in the following section.

4.10.2 Areas of Ambiguous Regulation

This section briefly addresses areas where vague regulatory provisions cause ambiguity in disclosure items. These areas are included in the Company Law (2190/20) and therefore any mention of requirements refers to it. The management report has been criticised on grounds of limited informative value as a result of vagueness (Sakellis, 1992, p. 940). The source of vagueness in requirements refers mainly to the relative lack of certain criteria to guide disclosure decisions. That impacts on the quality and quantity of information. Segment reporting is such an issue. The Law (art. 42e, para 15a) states that '*sales by activity and markets should be analysed, as long as such activities and areas present essential differences from a sales organisation point of view*'. However, what presents an essential difference from a sales organisation point of view is not defined. The mandatory regulations are these of the Fourth Directive where sales are segmented by domestic market and overall exports and also by merchandise sales and sales from services. Therefore, companies disclosing any further information do so on a voluntary basis.

The Law (art. 43a, para 3a) also requires disclosure of corporate prospects. This type of information has a forward-looking element. That could include an especially broad range of information on strategic decisions such as new markets, investments,

external generated factors (macroeconomics, industry factors) or any type of managerial anticipation (Radebaugh and Gray, 1997, p.498). Lack of specific guidelines and specific definitions on information items causes ambiguity. The lack of any other recommendation in this area makes related decisions subjective. In addition, this type of information is non-audited which may increase its discretionary behaviour.

A particular feature of some disclosures is that although they are mandatory, loopholes in regulation allow discretionary judgement since the decision on disclosure is in the jurisdiction of the management. Information on managerial remuneration is an example. The Law specifies (art.43, para 1) '*remuneration to members of the board of directors and administrative members and liabilities of retirement of these members should be disclosed*'. However, another provision states that this information could be omitted if it reveals the identity and income of these members. Thus, this provision turns from the strong mandatory notion of '*should be disclosed*' to the weak discretionary one of '*could be omitted*'.

The Law (art. 43a, para 3a) also requires companies to disclose information on research and development (art.46 of the Fourth Directive). Relevant provisions are quite abstract. However, although this type of information might be of particular importance for many European enterprises, it has a restricted notion in the Greek environment because very few companies employ R&D departments or have sufficient funds for those activities. However, companies that engage in these activities disclose some information which tends to be uniform across companies, providing limited scope for further investigation.

The CMC has recognised many of the inadequacies of the existing regulation in the issues of transparency and disclosure of information caused by insufficient legislation (CCGG, 1999, p.11). A committee established under the co-ordination of the CMC has the task of improving information matters. Examinations of forward-looking information and management remuneration are included in its current agenda. That justifies further the particular importance of investigating disclosure

items when regulation is inadequate. The particular characteristics of these provisions will be used in the definition of voluntary disclosure in the case of Greece (5.4).

4.11 Summary and Conclusions

This chapter has presented the regulatory accounting framework of Greece and the main financial rules related to accounting disclosure that relate to the time period of this study. That is essential in order to specify voluntary items and also to draw conclusions about the way financial information operates in the Greek accounting system, which is necessary for the interpretation of the empirical results.

The Greek regulatory system for accounting has followed three major periods (4.2). The first, (1821-1917) is the phase of *laissez-faire* characterised by strong accounting inefficiencies. The second, (1918-1974) is characterised by thrusts of state intervention towards accounting standardisation. Finally, the third period (1975 to date), which is the mature period of accounting to which the research relates, covers the operation of GAP and subsequent implementations of stricter accounting laws and European Directives.

Accounting regulation in Greece is formed and managed by the government through legislature and regulatory bodies (4.3). The main regulatory bodies were stated to be: a) the Parliament and the President of Democracy who issue financial laws and Presidential Decrees respectively, b) the Ministries of National Economy, Finance and Trade who issue influential Ministerial Decisions and Interpretative Circulars c) the National Council of Accounting which is the guardian of the GAP and also provides advisory services and influential opinions d) the Accounting Books Committee which provides guidance on interpretations of the Code of Books and Records and finally e) the Committee for the Resolution of Accounting Disputes which effectively have no power. Accounting has been associated traditionally with governmental control and financial reporting with tax orientation. However, many changes were discussed to indicate trends in accounting reporting differing from tax orientation.

The main sources of accounting regulation were stated to be the GAP (4.6), the Company Law (2190/20) (4.7) and the Code of Books and Records (4.8). These were analysed particularly in relation to accounting disclosure issues. The GAP, which imposes accounting uniformity, prescribes in considerable detail the accounts that should be included in the balance sheet, the profit and loss account and in the table of appropriation of profits. Company Law (2190/20) governs the operation of Societes Anonymes and prescribes disclosure items in notes and the management report. Finally, the Code of Books and Records governs bookkeeping issues and also specifies the period of the fiscal year.

A discussion of the major implications of the regulatory framework on information issues was also presented (4.9). Regulatory characteristics were put forward that may influence relations between groups of users and impact on agency costs, signalling effects and legitimacy matters and so affect disclosure policies. In particular, issues related to the general meeting, timely information, perceived credibility of financial statements, composition and representation on the board of directors were briefly discussed in relation to disclosure matters.

Finally, the main implications of the Greek regulatory system for annual reports were discussed (4.10). The accounting system in Greece has particular characteristics which, taken together, form a package which is highly specific to Greece. These particular characteristics may exist to a greater or lesser extent in the accounting systems of other countries which have a developing capital market, although the resulting combination will be highly specific in each case. There is a potential for transferability of the analysis of the various components and their influence on voluntary disclosure of accounting information; the conclusion of this chapter, taken with that of chapter 3, is that the analysis of the combination will be country specific. Regulations that cause ambiguity were also addressed. Particular aspects of the accounting regulation as influencing the nature of accounting disclosure will be further discussed in the following chapter.

CHAPTER 5

5. Defining Voluntary Disclosure

5.1 Introduction

The purpose of this chapter is to address the second general objective of this study (1.2.2) and the second research question (1.4). A discussion of the concept of voluntary disclosure is essential because the definition of this concept impacts on measurement and interpretation of results. It has been argued in prior studies that the operation of voluntary disclosure is influenced by a set of complex factors within which market forces, institutional and regulatory characteristics are particularly important (Radebaugh and Gray, 1997, p.213). While there has been considerable prior research on the relative influences of market forces, institutional factors and regulatory characteristics to operation of voluntary disclosure (e.g. Meek et al., 1995; Sarpong, 1999), there has been no examination, so far, of the way these factors may impact on the definition of voluntary disclosure. This chapter examines the way regulatory characteristics impact on the definition of voluntary disclosure, as evidenced by other research studies. This chapter aims to identify the nature of voluntary disclosure in various empirical studies and to discuss implications for research design. Insights provided from relevant discussions will assist the definition of voluntary disclosure in the case of Greece. Clarity and precision of using concepts during research is possible by employing conceptual and operational definitions to bridge the theoretical and empirical levels which are also discussed.

This chapter is organised as follows: types of voluntary disclosure are discussed in 5.2. The main part of this chapter addresses issues related to the definition of voluntary disclosure (5.3). Then, 15 empirical studies are analysed according to their definition of voluntary disclosure. The particular approach to definition for the case of Greece is explained in 5.4. Conceptual (5.5) and operational definitions (5.6) are also discussed. The categories of voluntary disclosure are introduced (5.7). Finally, conclusions are summarised in 5.8.

5.2 Types of Voluntary Disclosure

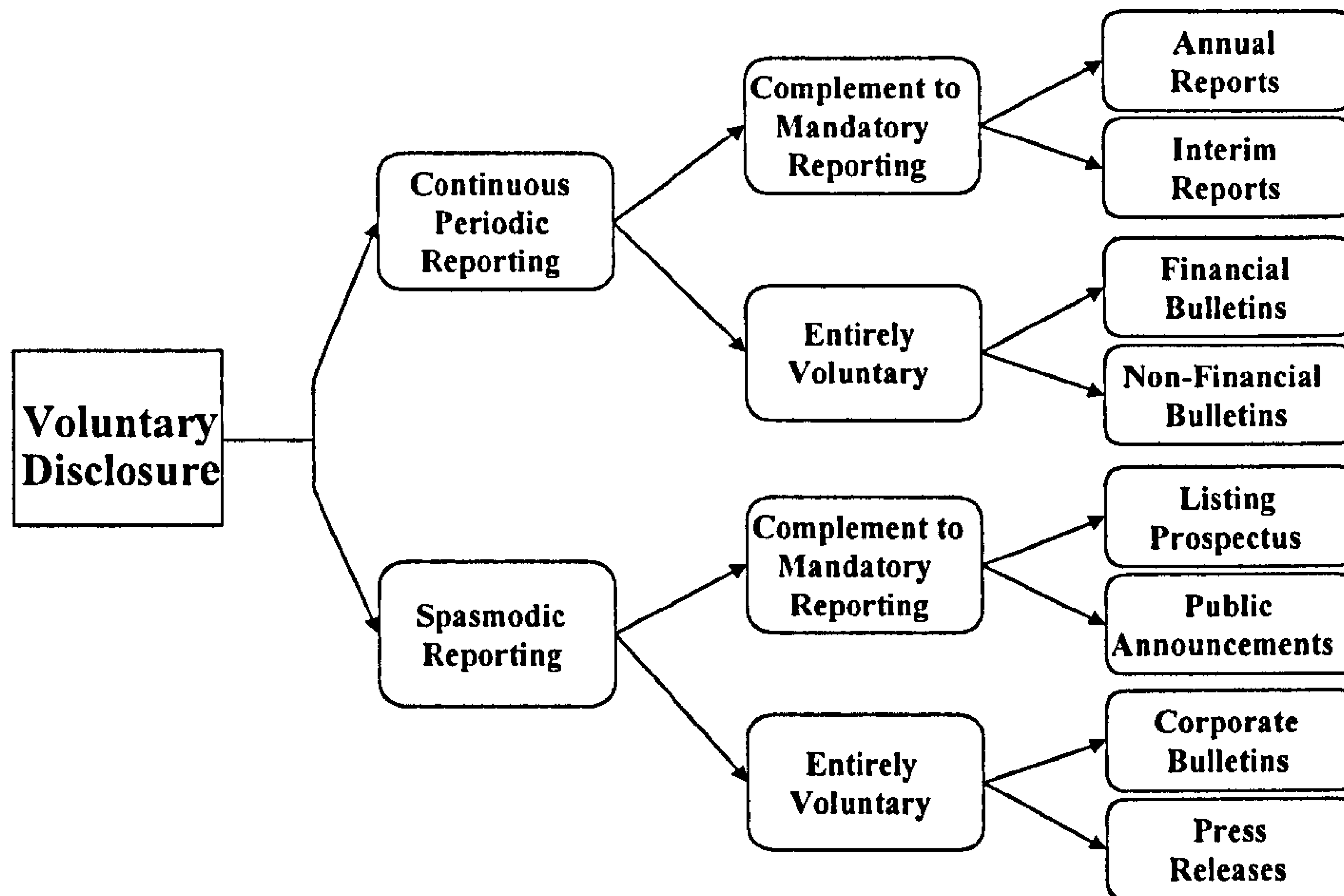
Published voluntary disclosure comprises a small part of the market's existing economic information. A considerable amount of economic information exists in the market with no further processing by the economic entities (mainly for reasons of relevance and materiality). Moreover, information withheld by the management and also information disclosed only to privileged users (e.g. institutional shareholders) make published voluntary and mandatory disclosure appear as a small subset of economic information (Beattie, 1999, p.33). Voluntary disclosure is influenced by diverse and complex factors. These factors, which tend to differ internationally, are outcomes of direct market and indirect regulatory pressures, interacting in a cost-benefit scenario (Radebaugh and Gray, 1997, p.487). These factors may also vary in different channels of published disclosure since the medium of disclosure may influence the nature of the disclosure.

Voluntary disclosure could be published through formal or informal channels (Narayan et al., 2000). This discussion refers to the former. Disclosure issues could be examined as a continuous or a spasmodic system (Wallace, 1987, p.26). Voluntary information could be released on a continuous periodic basis, which may be annually, semi-annually, quarterly etc. (Figure 5-1). The stringency of regulation, the degree of sophistication and efficiency of markets are crucial for these releases (Owusu-Ansah, 1998). Voluntary information included in periodic reporting could be viewed as a complement to mandatory disclosures. The main media of such disclosures are annual and interim reports, which are usually stock exchange requirements (Foster, 1986). These disclosures relate to all users and to this extent, voluntary disclosure is intended to meet a multivariate set of needs (Radebaugh and Gray, 1997, p.487).

Periodic reporting could take an entirely voluntary aspect when companies disclose information periodically by free will (Figure 5-1). Corporate bulletins that inform financial analysts and shareholders about operating results, the impact of factors on business in the short-term, or material events which have taken place are included here (Beattie, 1999, p.31). In many countries, including Greece, companies release

these bulletins every one or two months responding to demands for more frequent and timely information. These bulletins may report periodically on social responsibility, as an established practice, to enhance corporate image or be related to employee information as a response to the demands of labour unions (Papas, 1993, p.168). A vast number of empirical studies on management forecasts may be included here (e.g. Patell, 1976; Penman, 1980; Ajinkya & Gift, 1984).

Figure 5-1: Types of Voluntary Disclosure



Disclosure does not always follow a specific and known time pattern. It might occur occasionally, meeting sporadic information needs (Owusu-Ansah, 1998, p.150). This need may arise when voluntary disclosure supplements regulatory provisions on specific areas. Such disclosures may take place when companies get listed or raise finance on stock exchanges. Enhanced voluntary disclosure may be perceived as assisting a successful listing or capital rise (Foster, 1986, p.312). Furthermore, there are many other sporadic reporting obligations following stock exchange requirements which may attract corporate attention for voluntary disclosure strategies (e.g. mergers and acquisitions, material information to share fluctuations, transfers and disposals of significant share capital, increases of voting rights).

Finally, management under certain circumstances may regard information releases as crucial tools for a successful implementation of corporate goals. Factors crucial for operating performance or future results or share prices may be disclosed timely to take advantage of positive outcomes or reduce impacts of negative ones (Skinner, 1994). That includes the whole spectrum of corporate information but it may be more relevant to dramatic news (adverse audit opinions, dramatic deterioration or increase of financial fundamentals, M&As, pollution, accidents, adverse impacts on public health etc). In these cases management may engage disclosure procedures to exploit all possible benefits or mitigate possible costs and regain public trust. These may take either the form of corporate bulletins when specific groups are targeted or a general form of press release (Beattie, 1999, p.31). While the definition of voluntary disclosure may be straightforward when entirely voluntary types of disclosures are considered (Figure 5-1), this might not be the case when voluntary disclosure is complementary to mandatory disclosure. The main reason is that there may be controversy on some areas of disclosure. Therefore, the discussion on the definition of voluntary disclosure will take the form of investigation of a continuous periodic medium of disclosure where voluntary disclosure is complementary to mandatory disclosure. Such a medium of disclosure is the annual report, which is expected to reveal more insights about disclosure strategies and decisions since its importance, continuity, and relatively adequate preparatory time may provide scope for that. Annual reports are examined henceforth, recognising that conclusions may be limited to them only.

5.3 Defining Voluntary Disclosure

The concept of voluntary disclosure is an abstraction of a behavioural action (Wallace, 1987). Although there has been a great number of research studies in accounting reporting practices for forty years[29], little progress has been made on clearly defining the meaning of voluntary disclosure. Therefore, what it meant and what was researched may differ significantly amongst different studies. However, some consistency is essential for research to be rigorous. Contextual definitions of

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[29] As beginning by Cerf, 1961.

accounting disclosure are discussed in order to clarify research approaches and to assist in developing a contextual definition for this study.

5.3.1 Contextual Definition of Disclosure

There have been many attempts to define disclosure in the accounting literature. Most of them concentrate on the location of disclosure or the attributes of disclosure. Thus, Kohler (1957) defines disclosure as '*a clear showing of fact or condition on a balance sheet or other financial statements, in footnotes thereto, or in the audit report*'. A similar definition is employed by Wolk et al. (1984, p.240). They define disclosure as '*...concerned with information in both financial statements and supplementary communications.....*' (ibid.). These definitions fail to provide an adequate meaning since they are concerned mainly with the location of disclosure items and not with their nature or scope.

Choi (1973a) defines disclosure as '*...any economic datum relating to a business enterprise, quantitative or otherwise, which facilitates the making of economic decisions*'. Although Choi views disclosure as referring mainly to the enterprise-investor circle he attributes characteristics to disclosure (for instance, *...facts that reduce the uncertainty concerning the outcomes of future economic events...*) that may not always hold (as discussed by Spero, 1979). Owusu-Ansah (1997) defines disclosure as the act of making something public which hitherto was known only to insiders. Although this seems to be closer to a common understanding of disclosure, it deals neither with the scope nor with the nature of disclosures and moreover, it is too general to be operationalised in disclosure research.

Gibbins et al. (1990) define disclosure as '*any deliberate release of financial information, whether numerical or qualitative, required or voluntary or via formal or informal channels*'. This definition is broader and more complete than the previous attempts. However, it restricts the scope of disclosure to cover annual and interim reports, prospectus and corporate releases to financial analysts. Moreover, it does not include any type of non-financial information, which consistutes a great part of voluntary disclosure. It seems that this definition is more oriented towards financial analysts (as stated '*disclosure is a purposeful act of informing the professional*

investment community', ibid.). Finally, another definition is provided by the ASB. Disclosure is defined as '*economic information whether financial or non-financial, quantitative or otherwise of a company's financial position and performance and financial adaptability'* (ASB, 1994). Although this definition considers issues related to the nature and scope of disclosures it does not consider issues in terms of extent and importance of disclosure areas. Forward-looking information (e.g. opportunities and risks, management plans) does not seem to be considered. Moreover, disclosure of corporate legitimacy is also not considered by this definition.

Considering and synthesising the foregoing discussion, disclosure will be defined here as the corporate function of communicating economic, financial or non-financial, quantitative or qualitative, narrative or pictorial, past- or forward-looking information which could refer to corporate operations, financial position, performance, and societal activities that may be required or released at will to meet demands of the regulatory setting and users' needs. This definition is taken to include voluntary disclosures analysed in the following sections. This definition will also be applied in the definition of voluntary disclosure in the case of Greece.

5.3.2 Discussion of the Definition of Voluntary Disclosure

Voluntary has been defined (OED, 1995) as '*...acts of one's free will...*' and also acts '*...not constrained or compulsory...*'. This dual approach to define voluntary may indicate the relative definitional problems of this concept. When these approaches are implemented to accounting disclosure it could be argued that voluntary disclosure is *information disclosed at will* (1) or *not mandatory information* (2) respectively. Although these approaches to define voluntary disclosure seem to be identical, the way they may be operationalised in empirical research could be significantly different. According to the first approach voluntary disclosure is defined based on actual practices by companies considering regulatory characteristics (*de-facto*). Therefore, voluntariness is defined in an *ex post facto* way by observing relative effectiveness on disclosure practices. This definition has strong inductive elements since the definition is driven by the range of the data. From this standpoint, it would be interesting to examine requirements that are not followed by corporations and the actual compliance with rules becomes effectively voluntary.

The second approach considers voluntary disclosure in relation to existing regulatory provisions, ignoring their nature, effectiveness or the relative compliance with them (*de-jure*). Therefore, regulations are not examined in terms of enforcement, power and effect but taken in existence of legal backing. This stance in defining voluntary disclosure has deductive elements since relevant regulations are taken as *a priori* relevant to research decisions. The two approaches to define voluntary disclosure may be of material difference if operationalised in empirical attempts. Issues related to these definitions are examined further as follows.

Accounting regulations may be expressed in various ways – in statute law and/or through professional standards, through a regulatory body or through privately-generated acceptable standards (Tay and Parker, 1990). In respect of listed companies, another source of accounting regulation is stock exchange requirements. In many countries, accounting regulations originate from a combination of these sources. There are strict and less strict accounting regulations. Those which refer to all companies, are contained in law and contain a precise definition are strict, while regulations referring to some companies, contained in accounting standards and containing a discretionary definition are less strict (ibid.).

It is widely held in information economics literature that strict accounting regulation is not a panacea for information provision, since regulatory stringency may lead to high non-compliance in the absence of stiff penalties and enforcement (e.g. Viscusi and Zeckhauser, 1979; Kambhu, 1989). That has become evident even in highly regulated markets like those of the US (e.g. Schwartz and Soo, 1996) or the UK. Cooke and Wallace (1990, footnote 4) argue that a highly regimented posture is different from high compliance since whatever the regulation may be it would be ineffective if there were no adequate mechanisms to ensure compliance. Thus, enforcement and monitoring procedures should be examined in order to assess the relative power and effectiveness of accounting regulation. Accounting regulations are further discussed in the following sections in terms of particular characteristics which may influence methods of defining voluntariness.

5.3.2.1 Statutory Requirements

Statutory requirements may have a different degree of effectiveness in different institutional environments as a result of a set of reasons. Low compliance with these requirements is particularly the case in many emerging capital markets as reported for Nigeria (44%; Wallace, 1987), India (62.4%; Marston, 1986), Jordan (46.35%; Solas, 1994), Hong Kong (78%; Tai et al, 1990), Bangladesh (51.33%; Nicholls and Ahmed; 1995). However, some degree of non-compliance exists in many developed capital markets[30]. The main reasons are stated to be difficulties in interpreting disclosure requirements and auditing guidelines, cost of compliance, lack of proficiency of staff, insufficient knowledge of accounting concepts and inefficiency of regulatory bodies.

Specifically, in loosely regulated capital markets vague regulations, loopholes in requirements, and loose supervision may effectively lead companies to regard part of regulation as rules that should be followed, leaving the remainder at the discretion of management. Provisions existing in law may be particularly abstract which in many cases causes a lack of consensus amongst market participants on what actually is mandated. That is the case not only in emerging capital markets but also in some developed ones. A notable example is Sweden (Tornqvist, 1999), where lack of clear definitions and guidelines for a set of information items makes it '*difficult to compare what is disclosed with what it is required to disclose*' (ibid. p.155). Moreover, some provisions may not be followed since there are no associated penalties and therefore effectively they become voluntary.

Corporate culture is also suggested as influencing the managerial stance on regulation (Milroy, 1993). States of compliance culture are defined as: (i) non-compliance, (ii) negative or anti-compliance and (iii) positive or pro-compliance (Jenkinson, 1996). Compliance culture in turn is influenced by the quality of the management, information systems, employee-related issues, regulatory environment,

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[30] There are examples of non-compliance for a variety of developed countries. In the UK for instance, 100 listed companies are reported to have had major departures from Companies Act 1989 (FRRP Press Notice (PN) 2 in 25/07/1991). Moreover in the 60 Press Notices published by the FRRP there are cases of significant non-compliance with mandatory requirements (FRRP, 2001).

corporate vision (ibid.), regulatory estrangement[31], and risk (sanctions, financial, litigation and reputational risks) associated (Adams, 1994). Finally, another influential factor is the particular regulatory enforcement style taken, is defined as a) deterrence model, b) co-operative model and c) evolutionary game theory model (Scholz, 1984). The deterrence style is related to penalties of non-compliance while the co-operative model is more flexible and aims for some minimum compliance. Finally, the evolutionary game theory model is a combination of the two previous styles and it is based on a reactive approach. The relative style of enforcement tends to have an impact on the overall corporate behaviour in the regulatory environment and in managerial decisions on disclosure strategies.

5.3.2.2 Professional Standards

The relative ambiguity of some accounting regulations, as having an impact on the definition of voluntary disclosure, may be more obvious in the case of professional standards. Professional standards have been considered less strict than law (Tay and Parker, 1990). They are endowed with different degrees of authority in different countries. They can range from being legally enforced, to being usually obeyed and binding on auditors, to being persuasive, to being unimportant and to being largely unknown to companies or auditors (Nobes, 1987; cited in Tay and Parker, 1990). Furthermore, the enforcement power of professional bodies is less powerful than statutory law. The state has the power to seize and detain criminals while offenders of professional codes may have the option to leave the profession rather than submit to penalties (Donabedian, 1993). In this sense, the relative mandatory effect of professional requirements may vary across countries. The inefficiency of professional bodies in many emerging capital markets (e.g. Tai et al., 1990; Ahmed and Nicholls, 1994; Kantor et al., 1995) may have further implications for accounting standards. Hence, '*non-compliance with a professional accounting standard may have no severe legal consequences, if any, so that compliance is of a more voluntary nature*' (Tay and Parker, 1990).

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[31] In some countries (e.g. US) the banking authorities have made public a policy of being less receptive to those firms with poor regulatory records when it comes to requests for rule waivers, new licences or the expansion of existing activities (Adams, 1994).

5.3.2.3 Stock Exchange Regulations

Compliance with stock exchange regulations may be a particular consideration in disclosure behaviour of listed companies. However, compliance depends on the precision of regulations, the stringency of the particular regulatory system and the power and strictness of stock exchange supervisory bodies. That may vary across capital markets. The SEC, for instance, has the power and the will to penalise non-complying companies and purposefully to promote fair and full disclosure (Levitt, 1998). That may not be the case for many emerging markets where lax regulatory systems, inefficient monitoring procedures (Economist, 1990, p.6), weak supervisory bodies or different objectives may question the effectiveness of disclosure requirements. Moreover, stock exchange rules may refer to statutory law or professional standards as discussed above.

The mandatoriness of disclosure rules, even for mature markets, may be questioned since it has been challenged for the highest regulated capital markets (US and UK). Frost and Pownall (1994) emphasise that disclosure rules do not have the same power over the respective foreign firms listed on these markets. They state that incomplete monitoring (subjective assessments of materiality, review disclosures in other countries) and difficulties in enforcement[32] (limited co-operative agreements with other countries) make '*compliance with these rules, at the margin, voluntary*' (ibid.). They find that compliance with annual report and interim report requirements and cross-jurisdictional disclosure rules is imperfect in both the US and the UK, but better in the US. They conclude that literal disclosure rules are not the sole determinant of corporate disclosure practice since monitoring and enforcement mechanisms are strong determinants. Additionally, Schwartz and Soo (1996) found widespread non-compliance with SEC regulations on prompt disclosure of auditor change as a result of non-binding penalties and less rigorous standards.

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[32] They report no instance of disclosure violations by foreign issuers which have been either tested in courts or became subject of formal investigation or of any administrative proceeding in the case of SEC. Moreover they state (based on cited Petzinger, 1992) that suspension or delisting of foreign securities may not be politically viable. They add that there have also been particularly few cases of any action by International Stock Exchange.

5.3.2.4 Observations on Voluntary Disclosure Definition

Section 5.3.2 has presented a discussion of the definition of voluntary disclosure. This definition was argued to be a method which could follow two main approaches. While the first represents an *ex post facto* inductive approach, relating regulation to actual disclosures by companies evaluating specific regulatory characteristics and non-compliance, the second represents an *ad hoc* deductive basis relating primarily to the state of regulation and disclosure observed. The two approaches to the definition of voluntary disclosure may be identical in a highly developed regulatory system where precision of regulations, guidelines and professional recommendations may achieve a high consensus among market participants on mandatory provisions. In addition, requirements are intensively and strictly monitored by powerful supervisory bodies, sophisticated and independent auditors exist and non-compliance is an exception rather than the rule. However, in the absence of ideal regulatory systems the two approaches to define voluntary disclosure may be quite different in terms of disclosure outcomes since the disclosure items defined may be significantly different in terms of content and number. Mandatory items by a deductive approach may be considered voluntary by an inductive. In general, an inductive approach is expected to increase the actual number of voluntary disclosures and this may be particularly true for the case of emerging markets. This section (5.3.2) also discussed types of different regulations as they are expected to influence the definition of voluntary disclosure. Overall, this section hypothesised that voluntary disclosure could be defined as following the two aforementioned frameworks. Analysis of empirical studies on voluntary disclosure are essential here to test this benchmark. That is reported on the following section.

5.3.3 Discussion of Voluntary Disclosure Definition by Reference to Empirical Studies

The different approaches to voluntary disclosure, discussed in the previous section, may provide scope for differential definitions in empirical studies. Moreover, differences of regulatory characteristics amongst research settings may lead to expectation of a material variation in the way voluntary disclosure has been defined. This section addresses the way in which a selection of empirical studies has been defined and so measured voluntary disclosure. As mentioned in 5.2, entirely

voluntary areas may be traced easily, which may not be the case in more controversial areas. For instance, areas vaguely and loosely specified and/or cases in which mandatory items are not actually disclosed may cause additional difficulties in the definition process. Non-disclosure of mandatory information has been researched empirically as non-compliance (e.g. Tai et al., 1990; Owusu-Ansah, 2000), voluntary (e.g. Firth, 1979a) and misleading (e.g. Latham and Jacobs, 2000) disclosure. This section is mainly concerned with the investigation of these items as voluntary disclosure. From this standpoint, research studies are examined by distinguishing different types of regulation.

Table 5-1 summarises the definition applied to voluntary disclosure in various empirical papers, according to requirements included in legislation (Law), professional standards (Prof), stock exchange regulations (SER) and recommendations (Rec). These are further analysed in terms of strong and weak enforcement of relevant requirements, and ambiguity (amb) when requirements are not applied consistently because of lack of clarity. This attempt to review these studies has some limitations because of insufficient information since the majority of empirical papers were silent in explaining their approach to define voluntary disclosure.

5.3.3.1 Inductive Definitions of Voluntary Disclosure in Empirical Studies

This section considers seven studies that defined voluntary disclosure according to actual disclosure practices of companies, using ex post facto classification rules (Firth, 1979a, 1979b, 1980, 1984; McNally, 1982; Cooke, 1991, 1992). However, these studies differ in outcomes as discussed below.

Firth (1979a, 1979b, 1980, 1984)

Firth uses the same index for all four studies and so he applies the same definition in all four. He defines voluntary disclosure in the case of UK as items that '*had not appeared in annual accounts because of statutory requirements*' (eg. Companies Acts, Accounting Standards Committee and Stock exchange requirements). However, he considers as voluntary any items required by Companies Acts which are vaguely specified and also those items that are required by Accounting Standards but not disclosed by companies. He states (Firth, 1979a, footnote 1) '*...a few items were*

covered by the Companies Acts but they were included, as the wording in the Acts is 'loose' and many firms do not comply. Additionally some items are included which are covered by Statements of Standard Accounting Practice (SSAPs) published by the Accounting Standards Committee, and are therefore supposed to be reported on by companies. As some companies do not follow certain SSAPs and as many SSAPs are considered to be important by investors, these items have been included'. Therefore, he considers vague mandatory rules to be effectively voluntary which may lead to discretion in actual practice and also non-compliance. While influential recommendations are considered as voluntary (The Corporate Report), Firth is not very specific on the way he examines stock exchange requirements.

McNally et al. (1982)

McNally et al. (1982) define voluntary disclosure in the case of New Zealand by reference to actual corporate practices. They consider as mandatory items included in the Companies Act (1957) and also items required by the Statements of Standard Accounting Practice (SSAP) issued by the New Zealand Society of Accountants. Although '*compliance with all these standards is not universal* (Emanuel and Hickey, 1980 cited in McNally et al., 1982) *the high level of adoption makes it appropriate to consider them as contributing to mandatory disclosure*' (ibid, pp.12). While these items could be taken as voluntary, high compliance justifies mandatoriness in their study. Further insights on the enforcement of legislation could not be concluded here by this examination since McNally et al. (1982) examined companies that were believed to observe high standards of financial reporting.

Cooke (1991, 1992)

Notable among this stream of definitions is the work of Cooke (1991, 1992) on Japan. Voluntary disclosure is specified by Cooke as information not included in the Commercial Code (CC) and the Securities Exchange Law (SEL). However, it is emphasised that making the distinction between voluntary and mandatory is very difficult for a number of reasons.

Table 5-1: Definitions of Voluntary Disclosure in Empirical Studies

<table>
<tr><th>Studies</th><th>Law^{strong}</th><th>Law^{weak}</th><th>Law^{amb}</th><th>Prof^{strong}</th><th>Prof^{weak}</th><th>Prof^{amb}</th><th>SER^{strong}</th><th>SER^{weak}</th><th>SER^{amb}</th><th>Rec</th></tr>
<tr><td>Firth, 1979a, 1979b, 1980, 1984</td><td colspan="2">M[33]</td><td>V</td><td>M</td><td>V</td><td>NS</td><td colspan="3">NS</td><td>V</td></tr>
<tr><td>Mc Nally et al., 1982</td><td colspan="3">M</td><td>M</td><td>N/a</td><td>NS</td><td colspan="3">NS</td><td>NS</td></tr>
<tr><td>Chow & Wong-Boren, 1987</td><td colspan="3">N/a</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>NS</td></tr>
<tr><td>Cooke, 1989b</td><td colspan="2">M</td><td>V</td><td colspan="2">M/V</td><td>V</td><td colspan="2">M</td><td>V</td><td>V</td></tr>
<tr><td>Cooke, 1991, 1992</td><td>M</td><td>V</td><td>V</td><td colspan="3">N/a</td><td>M</td><td>V</td><td>V</td><td>V</td></tr>
<tr><td>Hossain et al, 1994</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>NS</td></tr>
<tr><td>Hossain et al, 1995</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td>M</td><td colspan="3">NS</td><td>NS</td></tr>
<tr><td>Raffournier, 1995</td><td colspan="2">M</td><td>NS</td><td colspan="2">N/a</td><td>V</td><td colspan="3">N/a</td><td>N/a</td></tr>
<tr><td>Suwaidan, 1997</td><td colspan="3">M</td><td colspan="2">N/a</td><td>V</td><td colspan="3">M</td><td>N/a</td></tr>
<tr><td>Adams and Hossain, 1998</td><td colspan="2">M</td><td>NS</td><td colspan="2">M</td><td>NS</td><td colspan="3">NS</td><td>NS</td></tr>
<tr><td>Depoers, 2000</td><td colspan="3">M</td><td colspan="3">N/a</td><td colspan="3">N/a</td><td>NS</td></tr>
</table>

Key M = Classed as Mandatory, V = classed as Voluntary, N/a = Not applicable, NS= Not Specified

[33] Tables are merged if there is not specified any consideration of different categorisations proposed here.

First, not all companies comply with mandated disclosures[34]. Secondly, the distinction is often blurred since companies ought to comply with GAAP even though the principles are not well specified ('*even Financial Accounting Standards for Business Enterprises are considered to be voluntary*') (Cooke, 1991). Since the distinction between mandatory and voluntary becomes very subjective, in practice a very wide definition of voluntary disclosure is adopted by narrowing the range of mandatory items. Thus, by observing actual corporate practices, in reference to the precision and enforcement of requirements, Cooke (1991, 1992) ends up with a broader definition of voluntary disclosure. His work is probably the most comprehensive endeavour amongst research studies to define empirically voluntary disclosure.

Observations

Therefore, in this set of research studies voluntary is decided in an *ex post facto* inductive way. Identification of the operation of financial rules, as they are screened by researchers in corporate accounts, is essential for this approach. This approach may take diverse outcomes, as seen above. While Firth (1979a, 1979b, 1980, 1984) takes some professional requirements as voluntary, McNally et al. (1982) consider professional requirements as mandatory, as they are both based on perceived compliance. Cooke (1991, 1992) seems to consider voluntary some statutory and stock exchange requirements which are ambiguous or of weak enforcement. These outcomes will be further discussed in reference to outcomes of the other stream of definition.

5.3.3.2 Deductive Definitions of Voluntary Disclosure in Empirical Studies

Eight studies are reviewed in this category. Although these studies begin with the notion that any literal anticipation of mandatory requirements is taken as mandatory disclosure without examining corporate practices, they end up with different outcomes as discussed in the following section.

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[34] Jinnai (1990; cited in Cooke, 1991) states that '*the case of Nippon Steel is only one instance of the manipulative practice of accounting which is prevalent among Japanese companies. Although changing accounting policies to suit arbitrary financial objectives is theoretically against the principle of consistency which is stated in the FASBE as a general principle, there has been a continuous tendency in the practice of Japanese corporate financial accounting to change accounting policies frequently*'.

Chow and Wong-Boren (1987)

Chow and Wong-Boren (1987) define voluntary disclosure for the case of Mexico by tracing '*NSC*[35] (stock exchange) *and IMCP* (professional) *pronouncements*' (ibid., footnote 6). Thus, they undertake a definition according to specified regulation. Notably, while not reflected in their definition, voluntary elements of accounting practices are highlighted. They state '*law enforcement is generally lax, and fraudulent accounting practices are common. Thus, firms in Mexico seem to have much more flexibility in accounting and disclosure practices...Consequently, their accounting and disclosure choices are also more likely to reflect voluntary responses to market forces*' (ibid.). However, these items are researched as mandatory. They point out as a limitation lack of feasibility to check all industry-specific regulations which may result a misclassification of some items (ibid). Considering that '*...Mexico is a relatively unregulated environment...*' (ibid.) this lack of feasibility may then be likely to be a result of controversy of regulatory provisions or of difficulty in obtaining legal requirements rather than a result of complicated, time consuming and extensive industry-specific requirements in financial reporting practices. However, the lack of further insights and also the limited knowledge of institutional factors of Mexico restrict the possibilities of further analysis.

Cooke (1989b)

In the case of Sweden Cooke (1989b) defines as voluntary those items that were not stipulated by Swedish accounting regulation. However, it is stated that '*there is uncertainty as to what constitutes GAAP...*' (ibid.). This lack of consensus may have many implications for the classification of disclosures. Cooke (1989b) recognises this, pointing out that '*a wide ranging definition of voluntary disclosure is adopted because of the flexibility of approach accepted in Sweden'*. Cooke considers as mandatory requirements included in the Companies Acts and Notices issued by the (Swedish) Accounting Standards Board. In contrast, he considers as voluntary those drafts issued by the most influential professional body (FAR). He states that an alternative valid approach could be engaged in the definition of voluntary disclosure

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[35] While the NSC is included in the Ministry of Finance, relevant requirements are classified as stock exchange regulations because it is stated that '*there are no federal or state laws that specify accounting practices*' (Chow and Wong-Boren, 1987, p.534).

which could reduce the number of voluntary items, indicating the relative degree of subjectivity. That is probably the reason why items of excessive ambiguity may be considered voluntary. Recommendations of other professional bodies are also voluntary. Given the above features of the regulatory environment in Sweden, Cooke's research decision was to adopt a comprehensive approach recognising the possible limitations of a '*wide-ranging*' definition of voluntary disclosure. Thus, voluntariness is defined prior to examining corporate practices. However, some judgements are exercised on the relative impact of regulatory characteristics on disclosure, although not very clear.

Hossain et al. (1994)

Hossain et al. (1994) consider as voluntary any information '*...which is not referring to the accounting standards promulgated by the MIA, the Companies Act 1965 and the KLSE listing requirements*' (ibid, pp.341) for the case of Malaysia. There seems to be no consideration of relatively ambiguous requirements or consequences of weak enforcement in their definition although they emphasise high non-compliance. They state '*... the KLSE has been critised (by IFC) for not fully exercising its rights or taking stringent action when the reporting requirements have not been fulfilled...*' (ibid.). Therefore, their definition of voluntary disclosure is restricted to items not included in regulatory provisions. There is no consideration of the implications of these requirements for corporate reporting practices.

Hossain et al. (1995)

Hossain et al. (1995) specify voluntary disclosure in annual reports of New Zealand companies by tracing New Zealand Accounting Standards. While Hossain et al. (1995) do not explain areas of non-compliance or ambiguity of requirements, they point out that recent regulatory attempts provided a more rigorous and more highly enforced regulatory environment[36]. Lack of insights in extent of compliance or characteristics of types of regulation restrict further analysis. McNally et al. (1982) and Hossain et al. (1995) differ in the approach taken to define voluntary disclosure in the same institutional context. While the former is based on the power of

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[36] They state '*rapid increase in the number of accounting standards, the publication of a statement of concepts and the introduction of legislative backing for accounting standards have led to more rigorous, regulatory climate. ...New Zealand legislators and accounting policy makers have kept a close watch over corporate financial disclosure*' (Hossain et al, 1995).

requirements for accounting practice the latter does not question the relative power of these requirements. However, considering the time lag between the two studies, that may have been as a result of regulatory and business changes occurring within this period of time.

Raffournier (1995)

Raffournier (1995) examines voluntary disclosures in the relatively unregulated environment of Switzerland. This environment is characterised by '*extremely limited regulation*' where accounting standards issued by the Foundation for Accounting and Reporting Recommendations (FER) are '*too imprecise to really be constraining*' (ibid.) which indicates lack of enforcement. Because of the possibility of an excessive number of voluntary disclosures in this environment and also the relative problems associated with unregulated environments discussed in 5.3.2, Raffournier takes quite a selective approach to certain categories of voluntary items. He defines as voluntary those disclosures related to the Fourth and Seventh Directives to be relevant to Swiss voluntary practices. However, voluntariness seems to be defined on an *a priori* basis here. This definition seems to be very restrictive compared with regulatory framework and actual corporate practice. The subjectivity of this definition has been criticised by Owusu-Ansah (1997).

Suwaidan (1997)

Suwaidan (1997) investigates voluntary disclosure policies of Jordanian listed companies. The highly unregulated environment and the lack of specific requirements provide no direction on what constitutes GAAP in Jordanian accounting (ibid., p.70). In such unregulated environments consensus on mandatoriness or voluntariness may tend to be quite low with many variations between the two extremes: '*almost everything is mandatory*' or '*almost everything is voluntary*'. Suwaidan considers as mandatory the statutory requirements (Companies Acts, 1985 and 1989) and the limited and general provisions of the stock exchange. He considers IASs, adopted in 1989, as voluntary since the accounting profession (JACPA) lacks the power to enforce them (ibid, p.79). In the light of specific regulatory characteristics, Suwaidan adopts a broad definition of voluntary disclosure. However, there is no guidance on the principles behind the definition which may lead to some elements of subjectivity. To emphasise the relative

subjectivity of this definition in a country such as Jordan, IASs are considered mandatory by Solas (1994) who also examines financial reporting in Jordan. A further analysis or an inductive approach to definition by reference to actual corporate practices or examination of perceptions of market participants on the meaning of voluntariness could have enlightened further the definition of voluntary disclosure in Jordan.

Adams and Hossain (1998)

Adams and Hossain (1998) research voluntary disclosure policies of New Zealand insurance companies. The insurance industry is stated to be largely unregulated (ibid.). They define voluntary disclosure as *'...information reported in the annual reports in excess of that mandated by company law and accounting regulations'* (1998, footnote 2). However, they do not provide further information on enforcement or areas of ambiguity although they point out that *'the NZ company law gave life insurance companies considerable discretion regarding the treatment of accounting items, and their presentation and disclosure in the annual report'* (Adams, 1994, p.4 cited in Adams and Hossain, 1998). Lack of information in the paper does not leave scope for further analysis here.

Depoers (2000)

Depoers defines voluntary disclosure for the case of France as information which is not mandated for shareholders. This type of information is included in Companies Acts. While this definition seems very broad, there is no sufficient information in the paper to make judgements on the relative enforcement or precision of requirements. Moreover, it is stated that mandatory information is included only in the Commercial Code and so there are no professional or stock exchange requirements for additional disclosure.

5.3.4 Main Aspects of the Discussion of Voluntary Disclosure Definition in Reference to Empirical Studies

Section 5.3.3 has described the ways in which 15 empirical studies defined voluntary disclosure. These studies were divided into two groups in terms of their initial approach to disclosure definition. Studies that have defined voluntariness by an inductive approach by reference to the relevant enforcement of accounting regulations and corporate practices were discussed in 5.3.3.1. Studies that applied a

deductive approach by reference only to regulations as specified in accounting requirements were outlined in 5.3.3.2. However, there are studies which have used a mixed strategy between inductive and deductive. However, for reasons of simplicity, studies that have inductive elements are categorised as belonging in the inductive approach group. Overall, every single study approached voluntary disclosure in a different way, even within similar approach-driven groups. That may reflect differential regulatory characteristics but it also may indicate the relative subjectivity of empirical definitions. Studies tend to follow the contextual definition of voluntary disclosure, discussed in 5.3.2, in broad terms. However, there is a notable variation amongst these studies.

It seems that although studies take into account different types of regulation, few are concerned with the nature of these regulations in terms of enforcement or ambiguity. Thus, it seems that the main controversy among empirical studies revolves around one major question 'what is a financial rule?' or alternatively 'what are the characteristics of mandatory requirements?'. That is because some studies take a restricted view to delegated legislation to define this concept while other studies define it based on influential impact. For instance Flower (1999, p.1) defines financial rule as laws, delegated legislation (government decrees and mandatory orders), accounting standards, recommendations and opinions. Inductive (*de-facto*) definitions recognise mandatory requirements when there is consensus on regulations, precision of requirements, adequate enforcement and monitoring and non-compliance is not high. On the other hand, deductive *(de-jure)* definitions consider as mandatory requirement any financial rule which has been enacted by state, accounting profession or stock exchange without questioning the effect of it. Studies belonging in the latter category were concluded to be more controversial and open to limitations related to definitions.

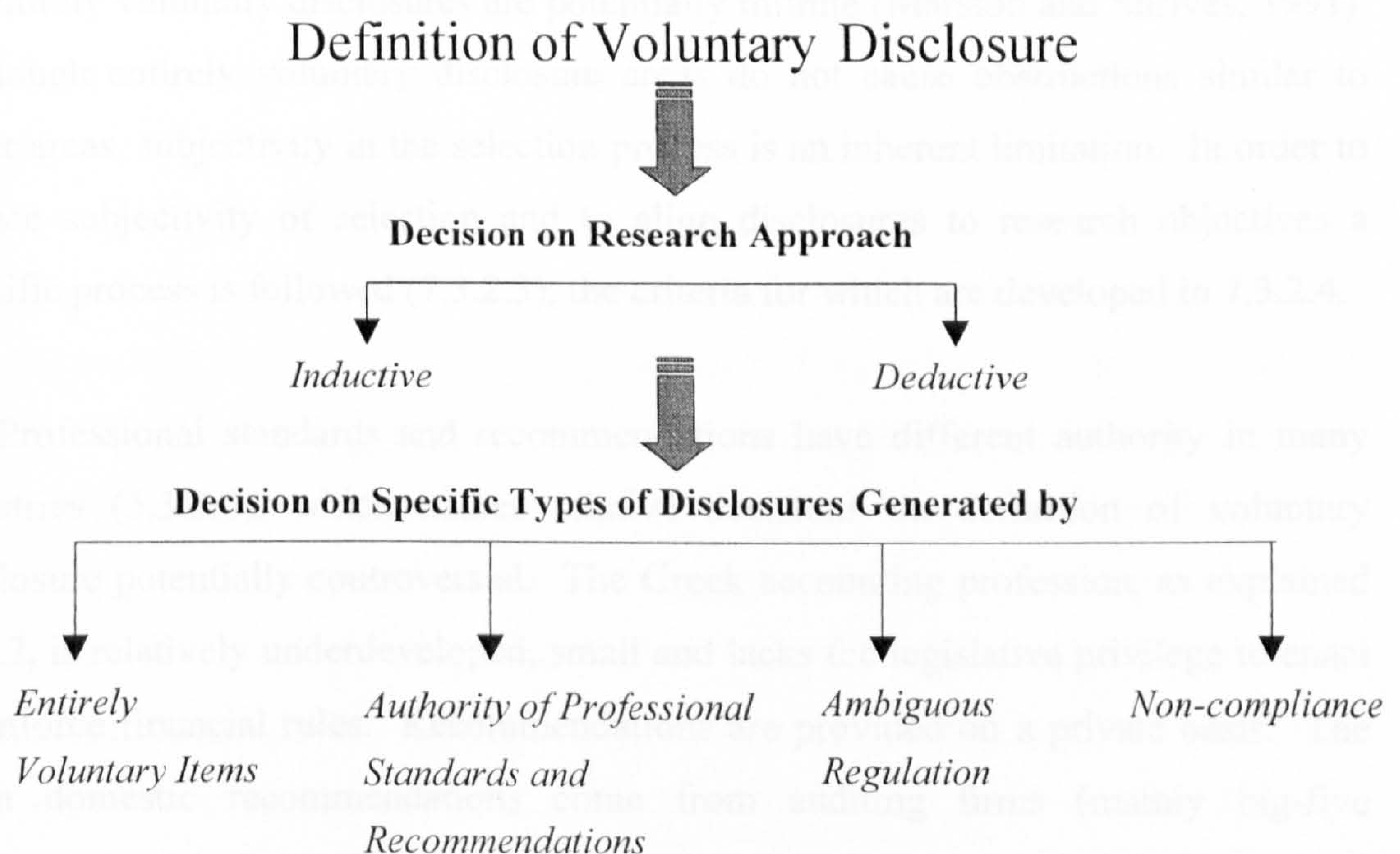
The definition of voluntary disclosure should ideally be a well-designed and explained method strictly related to the specific research objectives. This choice should consider the nature of regulations already existing as well as characteristics of the regulatory framework as influencing voluntary disclosure operation. An inherent

limitation of the examination of empirical studies attempted in 5.3.3 is the relatively limited information about these studies that they did not clearly indicate procedures or strategies in defining relevant concepts which restricts any anticipation for a more in-depth analytical examination and comparison. That is the main reason for any potential misclassification of the aforementioned examined studies.

5.4 Definition of Voluntary Disclosure: The Case of Greece

The purpose of this section is to describe the main process followed by this study, to generate areas of voluntary disclosure in the case of Greece. This attempt takes into consideration previous discussions on the definition of voluntary disclosure (5.3.2) and aspects provided by the discussion of the definition by empirical studies (5.3.3 and 5.3.4). Therefore, different types of regulations based on the Greek environment will be examined. Additionally, issues related to Greek institutional characteristics and regulatory framework that have been analysed in chapters 3 and 4 will be used here. This process will be relied on the development of the disclosure index (7.3.2.4). Although this process refers to Greece, it can be applied to other countries which have emerging capital markets. A view of this process is provided in Figure 5-2.

Figure 5-2: Process of Defining Voluntary Disclosure



The first step in defining voluntary disclosure is to determine the research approach. Voluntary disclosure is defined according to the state of regulation and actual disclosure policies, mainly for two reasons. Specifically, Greece has been classified as a moderately regulated country (Cooke and Wallace, 1990) with particular institutional and regulatory characteristics (chapters 3 and 4) which may have implications for disclosure issues, as discussed in 5.3.2. Furthermore, according to this approach to definition, which has inductive elements, voluntary disclosure is defined by reference to regulation and disclosure practices, providing in this way fuller understanding of both voluntary disclosure operation and regulatory characteristics within an institutional system. Since a major objective of this research study is to cast light on the operation of voluntary disclosure in Greece, this approach to definition is considered more adequate than a purely deductive approach.

The second step is the selection of items that are generated in different disclosure areas (Figure 5-2). These could be generated from: i) entirely voluntary areas, ii) professional standards (if voluntary) and various recommendations, iii) ambiguous areas in regulation and finally, iv) non-compliance with regulation.

i) Entirely voluntary disclosures are potentially infinite (Marston and Shrives, 1991). Although entirely voluntary disclosure areas do not cause obstructions similar to other areas, subjectivity in the selection process is an inherent limitation. In order to reduce subjectivity of selection and to align disclosures to research objectives a specific process is followed (7.3.2.3), the criteria for which are developed in 7.3.2.4.

ii) Professional standards and recommendations have different authority in many countries (5.3.2.2), which makes relative decisions on definition of voluntary disclosure potentially controversial. The Greek accounting profession, as explained in 3.7, is relatively underdeveloped, small and lacks the legislative privilege to enact or enforce financial rules. Recommendations are provided on a private basis. The main domestic recommendations come from auditing firms (mainly big-five companies) or individual auditors. Thus, the absence of professional standards or

formal recommendations in the case of Greece mean that there is no impact on the definition of voluntary disclosure.

iii) Areas of ambiguous regulation due to vague provisions have been discussed in 4.10.2. These disclosure items have been considered as voluntary by this study. A low degree of consensus among market participants, confusion on the actual requirements, lack of penalties on these areas, and lack of any supervisory action makes these areas effectively voluntary. These areas refer mainly to the Commercial Law (2190/20) as explained in 4.10.2. Stock exchange regulation describes broader areas or refers to disclosure areas other than information in financial statements (4.8.2) which makes the definition relevant only to the statutory rules discussed above (5.3.2.1). Therefore, those items vaguely specified, as reported in 4.10.2, are considered as voluntary in this study.

iv) Finally, areas of non-compliance are not high in the case of Greece. Initial discussions with some market participants (regulators, auditors, and directors) pointed to the conclusion that the extent of non-compliance is considerably low and immaterial (1.5).

Overall, this section has described the main steps followed in defining voluntary disclosure in the case of Greece. This process takes the form of deciding on a specific approach, and also on the types of disclosure areas that could generate voluntary disclosures (Figure 5-2). Entirely voluntary items do not cause problems in the definition, in contrast to vaguely defined and non-compliant items included in the whole spectrum of regulatory sources. The absence of professional regulation and the specific regulatory approach by the ASE pointed to a careful examination of statutory legislation. Compliance with reporting requirements did not generate areas where judgement on non-disclosed items would have been essential. However, ambiguous regulation due to vague provisions made specific items controversial. These have been treated as voluntary by this study. Thus, following the format of Table 5-1 in classifying the definition of voluntary disclosure in Greece is the following: strong enforcement of law is taken as mandatory, weak enforcement as

non-applicable and ambiguous regulation as voluntary. Neither professional nor stock exchange regulation is applicable since professional standards do not exist and stock exchange regulation refers to statutory law in terms of financial reporting. Because in Greece regulation is derived only from the state of law, the process of defining voluntary disclosure is relatively easier than for other more complex and regulated capital markets.

5.5 Conceptual Definition of Disclosure

Hendriksen (1982, p.505) states that in the literature broad concepts for disclosure which do not really differ if they are used in the proper context have been proposed. Disclosure has been researched by various studies as follows: Quality (Singhvi, 1968; McNally et al., 1982; Nicholls and Ahmed, 1995), adequacy (Buzby, 1974b; Owusu-Ansah, 1998), comprehensiveness (Wallace et al., 1994; Wallace and Naser, 1995), timeliness (Courtis, 1976; Whittred, 1980), understandability and readability (Jones, 1986) and informativeness (Imhoff, 1992; Lang and Lundholm, 1993).

The concept of adequate disclosure has been argued to be broad enough to encompass the entire area of financial reporting (Buzby, 1974a). Its broad and abstract nature and the relative lack of consensus in definition have many implications for accounting research objectives and research designs. Moonitz (1961) initially attempted to define the nature of adequate disclosure. He related it with (i) what should be disclosed, (ii) to whom and (iii) how disclosure should be made. The APB (1970) has referred to information that meets the qualitative objectives of relevance, understandability, verifiability, neutrality, timeliness, comparability and completeness to meet adequacy of disclosure. Buzby (1974a) relates adequacy with five basic themes (a) for whom the information is to be disclosed, (b) what the purpose of the information is (c) how much information should be disclosed, (d) how should the information be disclosed and (e) when should the information be disclosed. Item (c) is of particular relevance to this study. Thus, he states that information is adequate if it is relevant to users, fulfils decision making and is released in a timely manner (ibid.).

Two major elements of disclosure are quantity and quality. However, quality of disclosure is not *a priori* associated with the quantity (ibid.). Accounting quality has been argued to be neither a readily measurable nor a generally agreed upon characteristic of a firm (Imhoff, 1992). Thus, the inability previously to define precisely accounting quality and the possibility that companies have materially different rankings in terms of information quantity and quality are limitations imposed here. However, disclosure adequacy is assumed to have a positive association with the extent of disclosure i.e. the more the extent of disclosure the more adequate the disclosure provision.

5.6 Operational Definition of Voluntary Disclosure

Operational definitions describe a set of procedures researchers follow in order to establish the existence of the phenomenon described by the concept (Nachmias and Nachmias, 1996, p.30). That is particularly important when a phenomenon cannot be observed directly. The concept of accounting disclosure has been argued to be abstract and broad (Wallace, 1987) which gives many problems for research studies. It is therefore very important to decode abstract concepts like voluntary disclosure or disclosure adequacy into ways that capture reporting operations and they can be reliably measured. That takes place in this study by the development of a model that aims to measure the extent of voluntary disclosure of companies listed on the ASE. This model, which will be analysed in detail in chapter 7, consists of the development of a particular medium (disclosure index) which could rely on comparisons amongst different companies (7.3.2), the measurement method to quantify disclosure (7.3.3.1), and specific criteria to enhance reliability, objectivity and comparability (see 7.3.2.3; 7.3.2.4 and 7.3.3.3).

The examination of the extent to which companies disclose voluntary information, as measured by the disclosure index, provides insights about the relative adequacy of voluntary disclosures. Adequate disclosure has been operationalised as the standard of excellence in presentation of information which can be judged (subjectively) along a range from excellent to poor (Wallace, 1987; Rahman, 1998). However, it has been argued that adequacy refers to quantity, quality and timeliness of disclosures. This

approach captures the quantity of disclosures assuming that the more the disclosure the better. However, the quality could be assessed indirectly by the detail in which companies report items in disclosure themes[37]. This approach has been adopted by many studies in this area (e.g. Wallace, 1987; Owusu-Ansah, 1998). Therefore, it will be assumed that those companies which disclose more voluntary information will disclose more adequate information.

5.7 Categories of Voluntary Disclosure in the Disclosure Index

Section 5.6 has provided the operational definition of voluntary disclosure which in this study takes the form of the voluntary disclosure index. While there has been extensive prior research into the association of overall voluntary disclosure and corporate characteristics (2.8), there has been little attention to a more informed examination of categories of voluntary disclosure. In examining overall levels, voluntary disclosure is assumed to be an amorphous mix. That may operate in a similar pattern. However, there is empirical evidence that companies may behave different in different categories of voluntary disclosure and also there may be variables which are of different importance across a range of voluntary disclosure categories (e.g. Gray, S, et al., 1995; Meek et al, 1995). Although there is no strong theoretical or empirical support to provide guidance on the reasons companies may behave differently, which could direct this examination, it has been discussed in the context of theory (2.4.5) that this differential behaviour on corporate disclosure may be related to different objectives that management may wish to meet and also to the heterogeneous demand of users for voluntary disclosure.

Therefore, an examination of categories of voluntary disclosure, which in this study are defined as corporate environment, social responsibility and financial information aims to provide a more thorough analysis of the information contained in the voluntary index. The specification of voluntary scores in each information category is expected to lead to further analysis about the way voluntary disclosure operates in the case of Greece, which may be used for policy implications. Moreover, by

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[37] Companies which report the majority of items in general corporate information, including financial highlights, graphs and photos, are more likely to meet qualitative aspects than non-disclosures.

examining the factors that appear significant in specific categories and the factors that exhibit no significant association, a further understanding is provided of the overall levels of voluntary disclosure which offers valuable insights for a better interpretation of the results. Based on the above discussion, corporate environment, social responsibility and financial information categories are further explained.

5.7.1 Corporate Environment

Corporate environment information has a strategic element and it is usually provided at regular intervals. The main purpose of this type of information is to provide to users of accounts with further anticipation about the operations of the company, the main corporate strategies and managerial considerations about factors affecting business. Therefore, management making use of this type of disclosure may wish to improve the image of the company, decrease information asymmetries and also explain corporate issues to stakeholders whom may be perceived to have the right to know more than what is required by regulation. This category includes general information about the economic environment, general corporate information, specific corporate information and information about the directors.

5.7.2 Social Responsibility

Social responsibility information is subject to a multi-motivational function. Political and economic factors, decision making and users' demand may relate to the operation of this type of disclosure. While social responsibility is an area of growing interest and concern, the information needs of users have not yet been clearly established, nor have appropriate measures of costs and benefits been devised (Radebaugh and Gray, 1997, p.496) which may impact on the interpretation of empirical results. This category mainly refers to employee and social policy information. Employee information is considered to be of particular importance to labour unions, employees and also governmental and non-governmental groups. Moreover, various external groups are interested in the quality of human resources since in modern business, profitability and business success depend crucially upon the quality of the labour force. Social policy information has a strong ethical nature which is mainly provided for legitimacy reasons.

5.7.3 Financial Information

Finally, financial information refers to quantitative matters which improve the overall understanding of the factors that play a role in the performance and future growth of the company and may be of particular relevance for decision making. This type of information may be of particular relevance to existing and potential investors. Financial information in this study refers to segmental disclosure, financial ratios, financial review and market-related information. Segmental information provides information that improves evaluation of prospects, risks and performance. However, segmental information is also associated with high costs (Gray and Roberts, 1989) which makes management less favourable towards disclosing such information. Financial ratios also provide further analysis of the accounts and usually are related to further managerial analysis and interpretation which may give useful insights into management thinking. Financial review relates to the discussion and analysis of the financial results and position of the corporation as a whole. It is considered to be highly important for investment decisions (Firth, 1978). Finally, market related information is in general aimed at current and prospective shareholders and is designed to encourage interest in the company's shares (Choi, 1991). Past trend data can be useful for predicting future patterns and they are usually accompanied with comments about significant events. Share turnover and type of shares indicate the marketability of shares. Finally, ownership patterns indicate the concentration of ownership and voting rights and therefore shed some light on potential constraints on management or other shareholders which may impact on decision making.

5.8 Summary and Conclusions

This chapter has provided an analytical discussion of issues related to the definition of voluntary disclosure, addressing the second general objective of this study. Types of voluntary disclosure were outlined in relation to channels of disclosure in order to locate the voluntary disclosure operation examined by this study and to establish a framework for further analysis (5.2). Aspects of the definition of voluntary disclosure were discussed in 5.3. Voluntary disclosure is an abstract concept (Wallace, 1987) and in order to achieve clarity and precision in the research contextual, conceptual and operational definitions were attempted. The definition of voluntary disclosure

was identified as being problematic, as it is probably associated with difficulties related to the contextual definition of disclosure (5.3.1). This chapter proposed a variance of contextual definition of voluntary disclosure which was discussed in relation to the relative applicability of the term in different research settings (5.3.2).

An examination of voluntary disclosure definitions in 15 empirical studies, in relation to the state of regulation, attempted to shed light on empirical understanding of voluntary disclosure (5.3.3). Observed differences and similarities in research approach and characteristics were examined in relation to the proposed contextual definition of voluntary concept. Overall, voluntary disclosure in empirical work has been defined on an *ad hoc* deductive basis relating primarily to the state of regulation and, by some studies, on an *ex post facto* inductive basis relating to regulation and to the disclosure observed. Definitions were different in all studies. That may reflect differing regulatory and institutional characteristics but also may raise concerns of subjectivity. Voluntary disclosure, like any other behavioural function, should be defined properly in order to distinguish it from and relate it to other behavioural functions. The relative lack of consensus in the definition of voluntary disclosure in different or even similar settings indicated, among others, the complexity of defining voluntary disclosure.

The examination of empirical studies (5.3.3) in relation to the contextual definition and discussion of the nature of regulation (5.3.2) led to the development of a procedure to define voluntary disclosure. That has been explained in the case of Greece with regard to regulatory characteristics (5.4). This process could be followed in other studies as demonstrated in Table 5-1 for the analysis of empirical studies. The conceptual definition of disclosure (5.5) in relation to previous definitions led to the operational definition of voluntary disclosure in this study (5.6) and the categorisation of voluntary disclosure (5.7). Overall this chapter contributes to a better understanding of the definition of voluntary disclosure for the case of Greece and as a general procedure. Analysis of empirical definitions led to the conclusion that voluntary disclosure should be clearly defined in relation to the research

approaches presented in 5.3.2, and research decisions should be explained in order that research in voluntary disclosure becomes more rigorous.

Voluntary disclosure has been analysed and defined in relation to the specific objectives of this research. An attempt to go further in understanding the broader nature of voluntary information would require exploration of the essential attributes of voluntary disclosure (e.g. value) which are beyond the scope of this research. It would be interesting to apply the procedure to define voluntary disclosure (5.4) to media different than annual reports (linking probably Figures 5-1 and 5-2), establishing a more general rule to be followed in defining voluntary disclosure. However, the difficulty in synthesising observations of all reporting media in the public domain (and probably the entire literature of financial reporting) makes this task an interesting area of research in the future, but beyond this thesis. Moreover, considering the limitations in using the concept of voluntary disclosure in different disciplines some interdisciplinary research is necessary in order to make the basic content of this concept more comprehensive. From this standpoint, a convergence of views may occur when voluntary disclosure is discussed within the concept of systems and relative interactions within (Gorelik, 1975). However, this is beyond the objectives of this thesis.

This chapter will be used further as a basis for the development of research methods, especially the voluntary disclosure index (chapter 7). This chapter has also raised issues related to the financial reporting system such as the ambiguity of some regulations, the consensus of market participants towards ambiguous financial reporting requirements, the extent of compliance and the effectiveness of the regulatory framework. Hence, the operation of voluntary disclosure within a financial reporting system with such characteristics becomes of particular interest. Some answers to these issues will be provided in the quantitative part of this study (chapters 8 and 9). Moreover, some issues will be further explored through the perceptions of Greek market participants (chapter 10).

CHAPTER 6

6. Development and Formulation of Testable Hypotheses

6.1 Introduction

To investigate the second empirical research question (1.4) independent variables must be identified and theorised in order to formulate testable hypotheses. In this study these variables are specific corporate characteristics whose relationship with the extent of voluntary disclosure is investigated in the particular year of this study (1997). Thus, section 6.2 reports the development of the independent variables. Section 6.3 provides analytical grounds for the formulation of each testable hypothesis (specific measures of independent variables are reported in 7.4). Finally, summary and conclusions are provided in 6.4.

6.2 General Form of Hypotheses

There are many variables that can be used in order to observe associations with voluntary disclosure and to explain the variation in voluntary disclosure policies by companies listed on the ASE. Several variables have been proposed in the literature. Seven criteria were applied to select variables, as follows:

i. Confirmed theoretical frameworks and/or empirical studies should support their existence. Thus, there must be some theoretical and/or empirical considerations that support associations of these variables with disclosure.

ii. Frequency in prior academic research (e.g. size, gearing, profitability).

iii. Importance in testing variables (e.g. market-related variables).

iv. Variables to be of particular relevance to emerging markets and specifically to Greece (type of report, listing status).

v. Variables are measured reliably. These variables could be obtained by reliable sources and can be relatively easily measured for statistical tests.

vi. They can be operational and are cost effective in terms of costs and time.

vii. They meet the objectives of the current research.

The variables chosen in this study are ten, namely: corporate size, gearing, profitability, liquidity, share marketability, industry factor, share volatility, share yield, type of report and listing status.

6.3 Formulation of Testable Hypotheses

This section reports on the formulation of the hypotheses developed for testing associations of voluntary disclosure with company-specific characteristics. These are discussed and analysed according to disclosure and each company characteristic.

6.3.1 General Hypothesis: Company Characteristics and Voluntary Disclosure

Based on the second empirical research question stated in 1.4, theoretical frameworks and empirical evidence (discussed in chapter 2), the research hypothesis is formulated as follows:

H_0: *There is no significant association between the extent of voluntary disclosure and company characteristics.*

The alternative hypothesis is:

H_A: *There is significant association between the extent of voluntary disclosure and company characteristics.*

Based on the theoretical considerations and clear empirical evidence, as discussed in chapter 2, association between company characteristics and voluntary disclosure is expected.

6.3.2 Hypothesis 1: Corporate Size and Voluntary Disclosure

Size is the most commonly used variable in disclosure studies. That is because size has repeatedly been identified as a significant explanatory factor of accounting disclosure. However, it proxies almost all information theories (Ball and Foster, 1982), and as such, its interpretative value becomes complex. Agency theory associates agency costs with outside capital, which is likely to be higher in larger companies (Jensen and Meckling, 1976). Large companies are more visible than smaller ones and, in turn, more exposed to political attacks (higher taxes, price controls, social responsibility). Hence, large companies are more likely to adopt strategies to reduce those political costs. Size has been used as a proxy for political costs by several studies (e.g. Zimmerman, 1983; Holthausen and Leftwich, 1983).

Moreover, there are many other possible reasons to explain positive correlation between size and disclosure. Lower information costs (economies of scale) for large companies and the normal production of this information for internal reasons may justify this positive correlation. Furthermore, large companies tend to have lower competitive disadvantage by disclosing information than smaller firms (Dye, 1985; Meek et al., 1995) and also the opportunity costs are higher for smaller firms. Larger firms may have a more intense impact on society and also they are more capital market oriented and have greater analyst following, which makes them more open to issues of providing information (McKinnon and Dalimunthe, 1993). Overall, prior studies suggest a positive relation between size and extent of disclosure (see Appendices 2-I, 2-II). The null hypothesis is stated as follows:

H_{01}: There is no significant association between the extent of voluntary disclosure and corporate size.

The alternative hypothesis is:

H_{A1}: There is a significant association between the extent of voluntary disclosure and corporate size.

Based on the clear evidence of similar research studies a positive association between size and voluntary disclosure is expected. Measures of size are shown in 7.4.1.1.

6.3.3 Hypothesis 2: Gearing and Voluntary Disclosure

It has been proposed that capital structure is associated with agency costs (Jensen and Meckling, 1976; Smith and Warner, 1979). Agency costs are expected to increase with gearing because the wealth transfer from debt-holders to managers and shareholders increases with gearing. Thus, highly geared companies may disclose more information to satisfy the needs of long-term creditors (Malone et al., 1993; Wallace et al., 1994) and also to remove the suspicions of debt-holders for wealth transfer (Myers, 1977; Schipper, 1981). Hence, the higher the gearing, the higher the voluntary information is expected to be. However, when applying the rationale of signalling theory it could be argued that low-geared companies may wish to screen their financial structure by giving more voluntary disclosure.

Gearing has been found to be significant by Hossain et al. (1995). In contrast, Chow and Wong-Boren (1987), Hossain et al. (1994), Meek et al. (1995), Raffournier (1995), Inchausti (1997) and Patton and Zelenka (1997) found no significance. The null hypothesis that arises from empirical and theoretical considerations is the following:

H_{02}: *There is no significant association between the extent of voluntary disclosure and gearing.*

The alternative hypothesis is the following:

H_{A2}: *There is a significant association between the extent of voluntary disclosure and gearing.*

In the light of the contradictory evidence of previous studies there is no strong expectation regarding this variable. The measure of gearing is discussed in 7.4.1.2.

6.3.4 Hypothesis 3: Profitability and Voluntary Disclosure

Agency theory suggests that managers of very profitable firms will use external information in order to obtain personal advantages such as continuance of their positions and compensation arrangements (Inchausti, 1997). Profitable firms may disclose more information in order to be distinguished from less profitable firms (see Akerlof, 1970). Signalling theory seems to offer some possible reasons for this variation in voluntary practice. Profitable firms are more likely to disclose information that may be regarded positively by the market, while less profitable firms may wish to hide relevant information. However, it may be the case that less profitable firms may disclose more information to explain the reasons for negative performance and reassure the market about future growth. It may also be the case that companies, by disclosing '*bad news*' at an early opportunity, reduce the risk of legal liability, severe devaluation of share capital and loss of reputation (Skinner, 1994). Lang and Lundholm (1993) suggest that there is ambiguity in theoretical and empirical studies regarding the sign of profitability in relation to disclosure. This suggestion contrasts with the monotonic relationship assumed by other researchers (Singhvi and Desai, 1971; Raffournier, 1995).

Profitability has been used as a variable in many studies. Singhvi (1968), Singhvi and Desai (1971), Patton and Zelenka (1997), and Owusu-Ansah (1998) found a significant association. In contrast, McNally et al. (1982), Malone et al. (1993), Wallace et al. (1994), Meek et al. (1995), Suwaidan (1997), and Abd-Elsalam (1999) found no association.

Based on the above discussion the testable null hypothesis is stated as follows:

H_{o3}: There is no significant association between the extent of voluntary disclosure and profitability.

The alternative hypothesis is stated as follows:

H_{A3}: There is a significant association between the extent of voluntary disclosure and profitability.

There is ambiguity in theoretical and empirical studies on the association of profitability with voluntary disclosure. Therefore, there is no certain expectation regarding profitability. The specific measure of profitability is explained in 7.4.2.1.

6.3.5 Hypothesis 4: Liquidity and Voluntary Disclosure

Liquidity may be viewed as a measure of risk. The ability of a firm to meet its short-term financial obligations without having to liquidate its long-term assets or cease operations is an important factor in the evaluation of the firm by interested parties such as investors, lenders and regulatory bodies (Wallace and Naser, 1995). Financially strong firms, in terms of liquidity, may disclose more information to distinguish themselves from less financially strong companies. This variable bases its theoretical rationality in the context of signalling theory (Belkaoui and Kahl, 1978). However, the relationship between liquidity and voluntary disclosure may not be straightforward because companies with a weak liquidity ratio may disclose additional information to explain reasons for their performance.

Belkaoui and Kahl (1978) and Wallace et al. (1994) observed significant correlation. No association was reported by Wallace and Naser (1995), Owusu-Ansah (1998) and Abd-Elsalam (1999). The null hypothesis is stated below as:

H_{04}: There is no significant association between the extent of voluntary disclosure and liquidity.

The alternative hypothesis is stated as following:

H_{A4}: There is a significant association between the extent of voluntary disclosure and liquidity.

Since there is contradiction between the theory and the evidence of prior studies, no clear expectation is derived for liquidity. The measures of liquidity are shown in 7.4.2.2.

6.3.6 Hypothesis 5: Share Marketability and Voluntary Disclosure

Some positive relationship has been found between share marketability and disclosure (Copeland and Galai, 1983; Glosten and Milgrom, 1985; and Diamond and Verrecchia, 1991). That is because information asymmetries increase uncertainty which in turn reduces the volume of trade. That could explain the reasons uninformed investors do not invest at all in small firms, which impacts on their marketability (Merton, 1987). High marketability increases the liquidity and also reduces the cost of capital. Thus, companies with high marketability may wish to distinguish themselves by disclosing more information.

Moreover, higher marketability may be related to more analyst followings owing to higher commission fees for more marketable shares (Alford and Berger, 1999). That may affect provision of information. However, companies with relatively low marketability may wish to inform the market in order to show responsibility, to avoid unpleasant surprises on the stock price, and also establish some confidence about future progress.

The null hypothesis derived has the following form:

H_{05}: There is no significant association between the extent of voluntary disclosure and share marketability.

The alternative hypothesis is expressed as:

H_{A5}: There is a significant association between the extent of voluntary disclosure and share marketability.

Since there is no clear evidence on share marketability an expectation is not stated. The measure of marketability is explained in 7.4.3.1.

6.3.7 Hypothesis 6: Industry Factor and Voluntary Disclosure

Industry has been identified by theoretical and empirical research as a factor with explanatory potential for voluntary disclosure. Industries have different characteristics which may relate to competition, product differentiability, industry structure (e.g. oligopolies), growth, demand instability, quasi-legal constraints, risks and also to the specific culture which may be related to historical factors (Hambrick and Abrahamson, 1995). These may provide scope for differential disclosure policy as suggested by Dye and Sridhar (1995). Furthermore, the existence of a dominant firm in an industry with high levels of voluntary disclosure may have 'bandwagon' effects on all companies within this industry. This *'follow the leader effect'* has been detected in many studies of accounting disclosure (e.g. Belkaoui and Kahl, 1978; Cooke, 1991).

Moreover, different industries have different proprietary costs which give incentives for companies belonging to the same industry to disclose more or even less information than companies belonging to another industry (Verrecchia, 1983). For example, chemical companies, because of the nature of their research and development operations, may perceive higher proprietary costs and thus are likely to be more sensitive about disclosures to competitors and the public (Meek et al., 1995).

Industry can be viewed as a proxy of signalling models, political costs, and legitimacy. Signalling suggests that deviation from the established corporate reporting practice within an industry may be perceived as *'bad news'* by the market (Inchausti, 1997). In the context of political costs the industry may affect the political vulnerability of a company (Watts and Zimmerman, 1986, p.239) and in the context of legitimacy there is some evidence of industry effects but the studies are not clear or consistent enough to assess exactly what these effects might be (Gray, R, et al., 1995).

Results on industry tend to differ. While Stanga (1976), Belkaoui and Kahl (1978), Cooke (1989a), Meek et al. (1995), Wallace and Naser (1995), Suwaidan (1997) and Abd-Elsalam (1999) found significance, Wallace et al. (1994), Raffournier (1995),

Patton and Zelenka (1997), Inchausti (1997) and Owusu-Ansah (1998) found no significance for the industry factor. Following the above discussion the null hypothesis is stated as:

H_{06}: There is no significant association between the extent of voluntary disclosure and industry factor.

The alternative hypothesis is has the following form:

H_{A6}: There is a significant association between the extent of voluntary disclosure and industry factor.

From prior studies and theoretical considerations, there is no agreement on the relationship between voluntary disclosure and industry factor. Therefore a clear direction of expectation is not stated here. Industry is classified in 7.4.3.2.

6.3.8 Hypothesis 7: Share Volatility and Voluntary Disclosure

Prior research suggests a relationship between disclosure and volatility. It has also been shown that the severity of the adverse selection problems increases with information asymmetry. Lang and Lundholm (1993) suggest that disclosure will increase as the information asymmetry between managers and investors increases. However, if share volatility captures information not known by the management, volatility may be negatively related with information asymmetry and in turn with voluntary disclosure. It has also been argued that volatility may be associated with voluntary disclosure through its effect on the vulnerability of firms to attract attention to avoid penalties. That is because damages in securities fraud cases are normally based on share price changes and large price fluctuations may draw lawsuits and attract regulators (Alexander, 1991; cited in Lang and Lundholm, 1993).

Volatility could be viewed under signalling and market need theories. The relationship between volatility and disclosure is not monotonic (Imhoff, 1978). Companies with low volatility levels may wish to distinguish themselves from companies with higher volatility levels by disclosing further information. However, more volatile firms may wish to show the potentiality of high profits. Volatility consequences are particularly important for those emerging markets that experience high volatility levels.

Singhvi (1968) and Singhvi and Desai (1971) reported a negative association between voluntary disclosure and share volatility. Based on the above discussion the testable null hypothesis is:

H_{07}*: There is no significant association between the extent of voluntary disclosure and share volatility.*

The alternative hypothesis is the following:

H_{A7}*: There is a significant association between the extent of voluntary disclosure and share volatility.*

The absence of clear direction over this variable leads to no direction of expectation of share volatility. The measure of volatility is explained in 7.4.3.3.

6.3.9 Hypothesis 8: Share Yield and Voluntary Disclosure

A positive association between share yields and disclosure has been suggested in early papers of accounting disclosure (Horngren, 1957). It has also been argued that high information asymmetry between market participants leads to higher transaction costs and lower liquidity which raises the required rate of return and lowers current stock prices (Bartov and Bodnar, 1996). The context of agency theory views this variable that managers of high yield firms may use external information for personal advantages. In the context of signalling theory the view could be that high yield firms may wish to distinguish themselves from low share yield firms, (Akerlof, 1970). Market need also supports an association of this variable. Empirical evidence on voluntary disclosure and stock price performance is mixed (see Lang and Lundholm, 1993). However, the relatively recent papers suggest that informativeness of voluntary disclosure (in terms of forecasts) tend to be related with '*bad news*' rather than '*good news*' (ibid). The null hypothesis has the following form:

H_{08}*: There is no significant association between the extent of voluntary disclosure and share yield.*

The alternative hypothesis is following below:

H_{A8}*: There is a significant association between the extent of voluntary disclosure and share yield.*

Because of the mixed empirical evidence on share yield there is no strong expectation on that variable. The share yield measure is explained in 7.4.3.4.

6.3.10 Hypothesis 9: Type of Report and Voluntary Disclosure

Foreign activity is a strong incentive for companies to provide an English version of reports in order that customers and suppliers understand corporate matters. Prior studies (Cooke, 1989a; Raffournier, 1995; Depoers, 2000) indicated the relative influence of foreign activity to voluntary disclosure. Roberts et al. (1998, p.678) state that foreign-language statements are essential when companies seek finance in international markets since lenders are more likely to lend money when operations become more understandable to them. Moreover, the management choice to report in English indicates consideration of foreign users (financial analysts, institutional investors, foreign shareholders) which may be a pressure towards increased levels of voluntary disclosure. Overall, international pressures influence companies to adopt a global market culture rather than a specific country culture (Zarzeski, 1996). That may be indicated by the decision of companies to report in English.

When it comes to organisation structure, one factor which appears to be of great significance is the strategic importance that is attached to the global and local dimension respectively (Galbraith and Kazanjian, 1986). If the global dimension is of high priority a global division structure may be suitable. That may be reflected in the attempt of companies to be more friendly orientated to foreign users of annual reports by providing a user-friendly oriented report in English. That may also satisfy information needs of existing or potential customers or suppliers.

Greek companies that publish English annual reports tend to follow a presentation in the Greek language format which could be considered as more friendly to users. Provision of charts and photographs, friendliness to average users as defined by the format and the language used, quality of overall presentation, quality of paper, colourful presentation are some of these characteristics. It has been suggested (Thomas, 1991) that the presentational format of accounting information is a special feature of voluntary policy since it affects human perceptions and judgements over factors that reveal significant signals to the market. Thus, the choice to report in English may show an attempt of companies to compete in the international markets arena and the relative influence of it in domestic reporting practices. Finally, that

may also be viewed according to issues related to corporate image and prestige and/or the kudos of the management. The null hypothesis is stated as follows:

H_{09}: *There is no significant association between the extent of voluntary disclosure and type of report.*

The alternative hypothesis is:

H_{A9}: *There is a significant association between the extent of voluntary disclosure and type of report.*

In the absence of clear direction in empirical literature, there is no any direct expectation formed for type of report. This variable is further discussed in 7.4.3.5.

6.3.11 Hypothesis 10: Listing Status and Voluntary Disclosure

Listing status has been proposed by many studies of accounting disclosure as an explanatory factor of disclosure variability. This variable is mainly supported by agency, signalling and capital need theories. Fama and Jensen (1983a) argue that stock exchange listing is a mechanism for mitigating incentive conflicts between contracting parties. Schipper (1981) suggests that the link between listing status and voluntary disclosure can be either perceived as substitute for, or complementary to. The problem arises since there is information asymmetry between agents and principals. If the association between the two variables is complementary then voluntary disclosure will help investors to monitor their economic interests and also companies to reduce the cost of capital. In contrast, if the link is substitutive, listing status could help to reduce agency costs in such terms that listing on a stock exchange helps to improve the firm's reputational capital and reduce the need for voluntary disclosure to signal that agents are acting in the interests of principals (Hossain et al., 1994).

Cooke (1991) suggests companies with different listing status may disclose different levels of voluntary information because they may have different objectives in raising capital. Therefore, those companies having a listing status, or alternatively a more prestigious listing status, may be more willing to disclose enhanced voluntary information in annual reports. Listing status as a variable of capital need has been empirically supported by relevant studies (e.g. Spero, 1979).

Finally, listing status can be viewed in the context of signalling theory as well. Roberts et al. (1998, p.650) suggest that local listing may provide the company with extra publicity which encourages brand recognition and customer loyalty. Moreover, it may signal to customers and potential customers the long-term commitment of the company to the country which may lead to increased sales and improved future prospects of the company (Mittoo, 1992). It may also change the perceptions of other groups such as local communities, governments, local authorities and pressure groups, which may help to improve the operating climate facing the company (Roberts et al., 1998, p.650). Therefore, there may be sound reasons for these companies to engage different policies of accounting disclosure to screen their '*otherness*' for unlisted or companies with different listing status.

Listing status has been tested by Firth (1979a), Cooke (1989a, 1991), Meek and Gray (1989), Wallace et al. (1994), Hossain et al. (1994), Hossain et al. (1995), Meek et al. (1995) and Inchausti (1997). Overall the prior studies suggest a positive relation between listing status and extent of disclosure. The null hypothesis is stated as follows:

H_{010}: *There is no significant association between the extent of voluntary disclosure and listing status.*

The alternative hypothesis is:

H_{A10}: *There is a significant association between the extent of voluntary disclosure and listing status.*

Based on the clear evidence from similar research studies a positive association between listing status and voluntary disclosure is expected. The categories of listing status are further discussed in 7.4.3.6.

6.4 Summary and Conclusions

This chapter has reported on the development of independent variables and the formulation of testable hypotheses. Overall 10 independent variables were identified, namely: corporate size, gearing, profitability, liquidity, share marketability, industry factor, share volatility, share yield, type of report and listing status. Certain criteria were applied to select these independent variables: theoretical and empirical support,

frequency in prior research studies, importance in testing variables, relevance in emerging markets, reliability and operational convenience were considered in relevance to the objectives of this study.

Once independent variables were identified theoretical issues that provide grounds on the association of each independent variable with the extent of voluntary disclosure were analytically discussed. Empirical studies were also demonstrated in relation to the specific research hypotheses in order to assist the development of directional expectations of independent variables and the extent of voluntary disclosure. While corporate size and listing status are the variables that are expected to have significant positive association with voluntary disclosure other variables do not have a clear directional expectation. By testing the hypotheses formulated in this chapter by appropriate statistical tests, outlined in 7.5, conclusions could be offered about the developed hypothetical relationships (chapter 9).

CHAPTER 7

7. Research Methods

7.1 Introduction

The purpose of this chapter is to present, explain and critically evaluate the research methods employed in this study. This chapter is organised as follows: the following section (7.2) outlines the main procedures employed to obtain a sample of listed companies and opinions of influential individuals as data for analysis. Section 7.3 reports on the main research instruments and procedures with particular reference to the construction of the disclosure list, the measuring process and the interview structure and process. Analysis of the measures of independent variables is presented in 7.4. Section 7.5 presents the econometrics used in testing the formulated hypotheses. Finally, conclusions are summarised in 7.6.

7.2 Data Collection

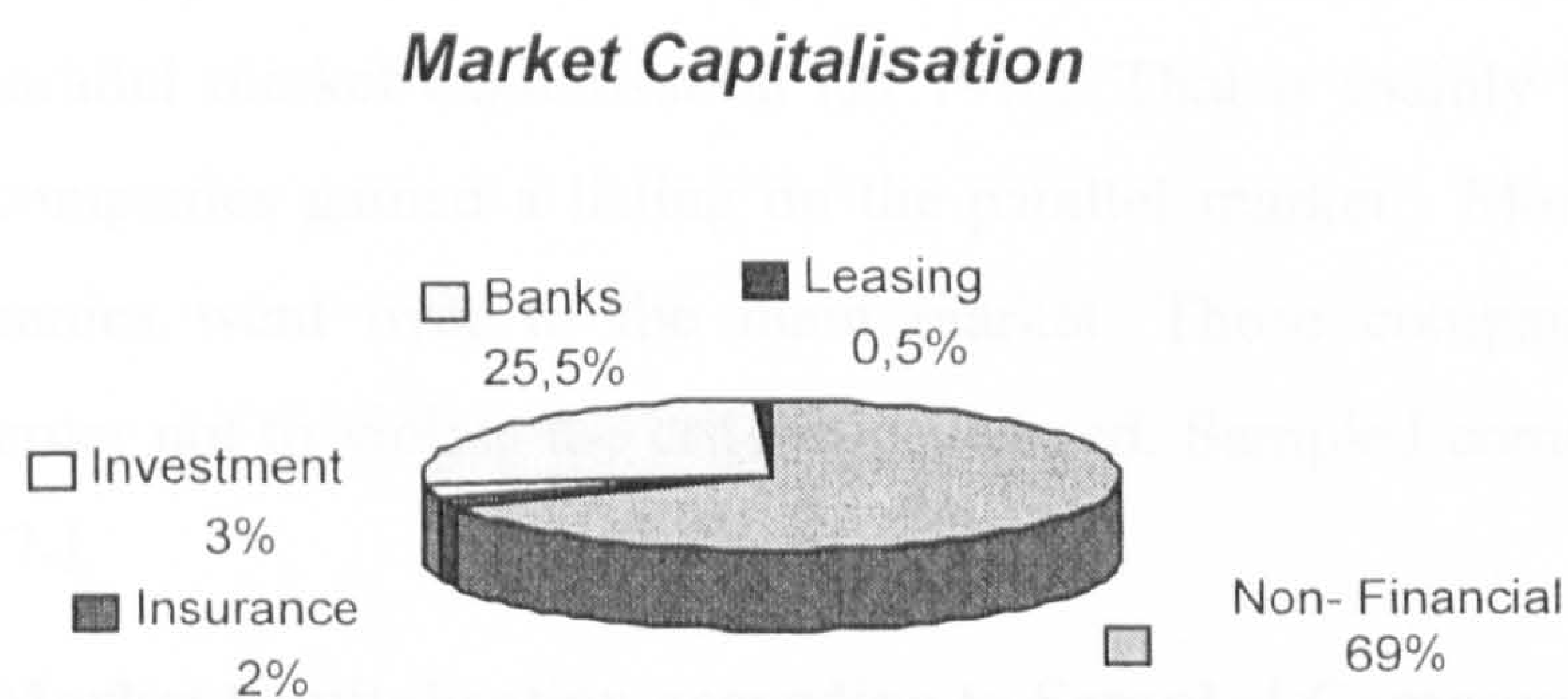
This project uses primary sources of annual reports of those companies listed on the ASE and opinion research obtained from interviewing influential individuals.

7.2.1 Sample of Listed Companies

The population comprises annual reports in Greek language of companies listed on the ASE in 1997. Sampling was influenced to an extent by availability. Annual reports were collected after persistent efforts. In October 1998 a letter requesting the annual report was sent to all (227) companies listed on the main and parallel market. Twenty-nine companies responded. A second letter was sent two weeks later. Twelve companies replied. Two weeks later a fax was sent to those companies that had not replied. Twelve companies replied. Twenty-six companies were contacted by telephone during December 1998. Since the sample was still low the researcher visited the headquarters of many companies to gather 37 more annual reports. No company refused in writing to supply an annual report but five did orally. The difficulty in obtaining accounts in Greece is a result of the inherent secrecy and unwillingness of companies to provide annual reports for use by non-shareholders.

Overall, 116 annual reports were gathered by the end of January 1999. The initial sample consisted of 97 companies listed on the main market and 19 listed on the parallel market. However, in order to enhance homogeneity of the sample two criteria were applied. Financial companies that traded on the ASE were excluded from the sample because of different accounting regulation and also because of the materially different nature of their operations. Disclosure items could not be comparable. Thus, 22 financial companies (banks, insurance companies, investment and leasing corporations) were excluded. These represent a considerable part of market capitalisation, as seen in Figure 7-1, which may provide some limitations on the generalisibility of results. This approach has been taken by many studies in voluntary disclosure (e.g. McNally et al., 1982; Cooke, 1989a; Hossain et al., 1995; Meek et al., 1995).

Figure 7-1: Market Capitalisation of the ASE (1997) by Sectors



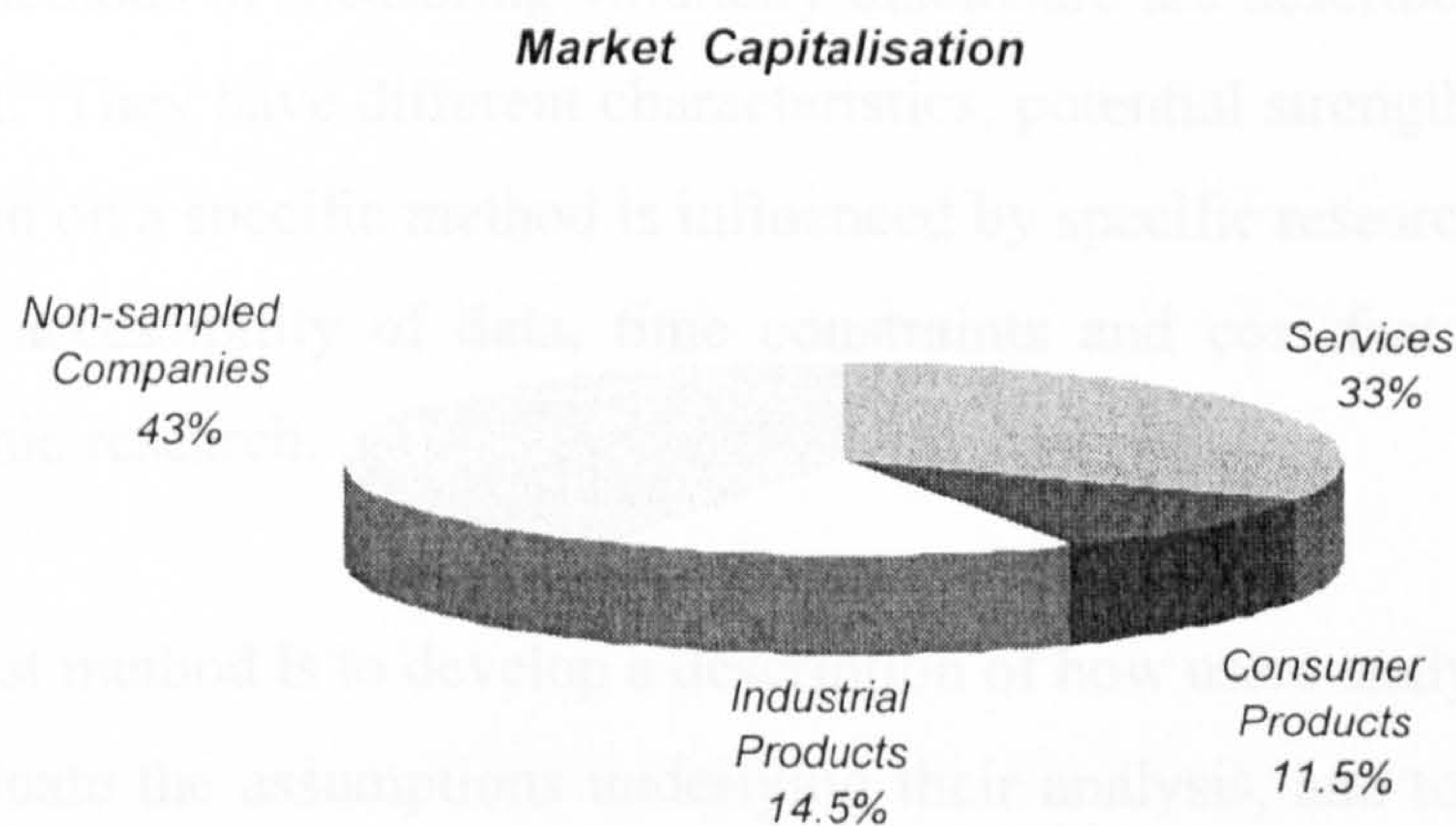
Furthermore, seven companies which became listed for the first time in 1997 were excluded. That includes two companies which changed their listing status. This approach has been followed in prior studies of accounting disclosure (e.g. Owusu-Ansah, 1998). Since the listing process may affect significantly management decisions over disclosure strategies, those companies cannot be directly comparable with companies which have held a listing status for a minimum of one year. That is because newly listed companies may still be developing their disclosure policy. A summary of the sample selection is shown in Table 7-1.

Table 7-1: Summary of Sample Selection Criteria

Description	Main Market	Parallel Market	Overall
Companies listed in 1997	184	43	227
Companies responding	97	19	116
Rate of response	52.71%	44.18%	51.10%
Exclusion of responded companies			
Financial services companies	19	3	22
Companies listed on 1997	3	4	7
Total excluded companies	22	7	29
Final sample	75	12	87
Proportion of the total population	40.76%	27.90%	38.32%

Although the final sample of companies to be examined consists of 38.32% of the companies listed on the ASE, it includes the majority of the market capitalisation (57%). The sample is relatively skewed to the largest companies, placing limitations on the generalisability of the results. Figure 7-2 indicates the relative proportions of the market capitalisation by industry of the companies included in the current study. The sample of companies listed on the parallel market consists of a relatively small part of the parallel market capitalisation (21.19%). That is mainly because during 1997 many companies gained a listing on the parallel market. Moreover, the two largest companies went over to the main market. Those companies had to be excluded in order not to violate the criteria developed. Sampled companies are seen in Appendix 7-I.

Figure 7-2: Market Capitalisation according to Sampled Companies



7.2.2 Interview Respondents

Interview respondents were individuals who could influence voluntary disclosure issues in Greece. Thirty individuals were initially targeted as potential interviewees. These were directors, financial analysts, regulators, external auditors and bankers. Twenty-three of them were interviewed, which represents a 76.7% response rate (Table 7-2). The main reason for declining was time constraints. That may provide some biases on the conclusions of interviews.

Table 7-2: Interview Respondents

Name	Number Targeted	Number Interviewed
Corporate Executives	10	7
Financial Analysts	5	3
Regulators	5	5
External Auditors	6	5
Bankers	4	3
Total	30	23

7.3 Research Instruments and Procedures

The main research instruments of this study are reported in this section. Research methods to measure voluntary disclosure are evaluated and the particular approach undertaken is further discussed. Choices, strategies and criteria applied are outlined. The interview structure and approach followed by this study is also explained in this section.

7.3.1 Research Methods to Measure Voluntary Disclosure in Annual Reports

Four methods of measuring voluntary disclosure are described and discussed in this section. They have different characteristics, potential strengths and limitations. The decision on a specific method is influenced by specific research objectives, the nature or the accessibility of data, time constraints and cost factors, and also trends in academic research.

The first method is to develop a description of how users analyse financial statements to evaluate the assumptions underlying their analysis, and to assess implications of disclosure issues (Dyckman et al., 1978, p.51). This is an indirect way to measure disclosure since it is concerned with the outcome of disclosure, namely the perceptions of users. This approach could take a broad orientation to a broad group

of users or it could focus on specific groups to examine attitudes to disclosure. Bradish (1965; cited in Dyckman et al., 1978) and Ecton (1969; cited in Dyckman et al., 1978) have used the latter approach. Although this approach may have potential merits in measuring the direct impact of disclosure policies on target groups, it suffers from some deficiencies. For instance accessibility of data, high costs and time, lack of development of a composite score and limitations associated with perceptions on disclosure (McBurney and Collins, 1984) may be some.

The second method is the determination of the frequency with which information items are distributed in annual reports. That method was proposed by Morris (1984) when examining disclosure practices in New South Wales in the late 19th century. This approach is concerned mainly with the frequency, the modal value of items, without referring to associations between frequencies and corporate characteristics. This approach may be engaged when there are limitations of time, data and costs or when highly unregulated markets limit research designs. Strong limitations with this approach may lie in lack of explanatory factors of disclosure, lack of a considerable range of other disclosures and lack of relevant prior research.

The third method which consists of measuring the actual amount of words disclosed in annual reports has been proposed by Copeland and Fredericks (1968). This method has been criticised (Cooke, 1989a; Marston and Shrives, 1991) as being subjective since repetitions of certain numbers and words may distort the final result. Moreover, since this approach is concerned with texts it has been suggested that numbers cannot be viewed in isolation from explanatory narratives (Marston and Shrives, 1991) and also other issues (e.g. business complexity) may impact negatively on the outcomes of this method.

The fourth method is the development of a disclosure index, which consists of information items in annual reports. This method has been initially used by Cerf (1961) but it has been followed by a considerable variety of research studies in mandatory (e.g. Malone e al., 1993; Wallace et al., 1994) and voluntary disclosure (e.g. Chow and Wong-Boren, 1987; Meek et al., 1995). The effort in measuring

disclosure is associated with many problems. Cooke and Wallace (1989, p.51) state that financial disclosure is an abstract concept that cannot be measured directly. The quantification of disclosure is a complex process vulnerable to many limitations. However, the construction of a comparable set of items is considered to be an adequate way to deal with comparisons between different companies.

This method is to score items belonging in a disclosure index according to whether they are disclosed or not. This approach consists of the selection of disclosure items, the determination of rules that relate disclosure items *inter se* and within the disclosure index (additivity) and also the specification of the relative value of selected disclosure items. Those items may be either weighted or unweighted. The latter method may be considered in a qualitative or dichotomous approach. That is discussed in 7.3.3.1.

The disclosure index method has gained preference by researchers of accounting disclosure for many reasons. This approach captures the differences in magnitude of corporate financial reporting (Cooke and Wallace, 1990) and it is direct and replicable. Companies can be ranked and explanatory variables can be tested. Moreover, frequency distributions of items can easily be reported. Finally, comparability with other studies and limited costs and time constraints are further advantages. However, this method is not free of limitations. At first, this method is associated with some subjectivity which may occur in the selection of disclosure items and also on the measurement process (Wallace, 1987). These limitations may be reduced by the development of specific criteria (Marston and Shrives, 1991). There are further limitations on the rationale of both weighted and unweighted approaches (7.3.3.1). Considering the strengths and limitations a disclosure index is adopted to measure voluntary disclosure. This is further discussed in 7.3.3.

7.3.2 Construction of the Disclosure List

The usefulness of the disclosure index, as a measure of disclosure, depends critically on the selection of items for inclusion (Marston and Shrives, 1991; Rahman, 1998). Disclosure lists are extensive sets of selected items, which may be disclosed in company reports (Marston and Shrieves, 1991). The fact that only a small sub-set of

the items that could be disclosed is selected in disclosure lists implies some elements of subjectivity. That seems to be more likely in voluntary disclosure lists where potential disclosure items are numerous. Marston and Shrives (1991) emphasise that the process of measuring corporate disclosure cannot be carried out in a precise scientific way, since subjectivity cannot be completely removed. Thus, results could always be vulnerable to some criticism (ibid.). It is therefore the efforts of researchers to minimise subjectivity, which justifies the relative merits of research studies. This section provides an analytical discussion on the choices, strategies and processes on the development of the voluntary disclosure list in reference to theoretical and empirical aspects.

7.3.2.1 Reasons for Choosing Annual Reports

It has been argued that annual reports are the most important mechanism through which companies disseminate information to the public (Firth, 1979a; Hines, 1982; Marston and Shrives, 1991; Hossain et al., 1995). Disclosure in annual reports could be viewed as a proxy for information in other corporate media, like listing prospectus, interim reports and corporate bulletins (Land and Lundholm, 1993). Annual reports are of primary concern for users of financial information (Anderson, 1981; Chang et al., 1983). It has also been suggested that annual reports are the appropriate media for research in particular information areas like social responsibility disclosures and employee information since annual reports were found to be the major means of disclosing such information.

The relative importance of annual reports has been indicated in the context of both developed (e.g. Lee and Tweedie, 1975) and emerging capital markets (e.g. Abu-Nassar and Rutherford, 1996). Considering the relatively poor operation of other corporate media in emerging markets, and in Greece especially, annual reports appear to hold a central position in corporate information issues which have not been adequately researched. Overall the aforementioned reasons along with annual reports in the Greek context provide an interesting case for international accounting provide scope for analysis on this specific corporate medium.

7.3.2.2 Reasons for Developing a New Disclosure List

Many researchers have stated the relative importance of the disclosure list for the results of accounting disclosure studies (e.g. Marston and Shrives, 1991). A key process for a useful checklist is the way items are selected. Many researchers coped with that problem by applying disclosure lists that had been developed by previous research studies. Disclosure lists developed by Cerf (1961), Buzby (1975) and Firth (1979a) have been used by other studies of accounting disclosure (e.g. Belkaoui and Kahl, 1978; Firer and Meth, 1986). Although this could be an appropriate method when research studies refer to the same country, industries, users' needs, research objectives and roughly similar periods of time, it may not be the case for studies non-identical with these aforementioned characteristics. Marston and Shrives (1991) emphasise the fact that no particular list has gained favour among researchers.

In the current study a new disclosure list is developed. Despite disadvantages in terms of comparability with other disclosure studies, an analysis of the literature indicated the lack of a single disclosure list capturing adequately the voluntary reporting practises of Greek companies. That is because particular institutional characteristics impact on financial reporting in ways that may not be similar to those of other countries. That particularly holds where developed capital markets from which most of the disclosure lists have been developed are concerned. The particular structure of Greek regulation, which tends to be extremely detailed on specific disclosure areas but general and vague on others, also had an impact on the composition of the disclosure list.

7.3.2.3 Aspects of Constructing the Disclosure List: Approach, Number of Items, Format, Types of Items

Approach

Four approaches have been suggested in the procedure of constructing the disclosure list. These are: (a) prior-defined, (b) user-generated, (c) elimination, and (d) hybrid approaches. These are critically discussed here with reference to the approach taken by this study.

(a) To begin with, it has been argued that established practices or recommendations of items relevant to decision-making could be followed in order to construct the voluntary disclosure list (Raffournier, 1997). This approach has a deductive element and although it may be convenient it does not seem to be rigorous. First, this approach excludes *a priori* many disclosure items that companies do publish at free will without following any established practice or recommendation (e.g. professional). Second, it assumes *a priori* that recommendations are followed by companies in their disclosures practices. Finally, it may be the case, particularly in loosely regulated countries, that there are limited recommendations (e.g. Greece) or no recommendations at all (e.g. Jordan[38]) over disclosures. Thus, following such an approach a disclosure list may end up with an extremely limited number and range of disclosure items or, at the extreme, with no items at all.

(b) An alternative approach is to rely on the opinions of users of financial statements to construct the disclosure list (Raffournier, 1997). This approach is also deductive based on user needs. Although this approach avoids the bias of researcher-generated disclosure lists it seems to reflect limitations similar to the weighted approach over scoring disclosure items (7.3.3.1).

(c) A three-step elimination approach proposed by Owusu-Ansah (1997) seems to be more rigorous. This consists of: (i) identifying and generating a preliminary list of all mandated items (List A), (ii) reviewing and compiling all information items disclosed in the annual reports of sampled firms avoiding duplications (List B) and (iii) deleting all mandated items (List A) from List B. The remaining items represent the voluntary items which should be further validated (ibid.). This approach has deductive and also inductive elements. Although this may be a valid approach that could be followed it has not been followed by research studies (to the knowledge of the researcher) mainly because it is uneconomical in terms of time. Furthermore, the essence of this approach is included in the form of the following approach.

[38] See Suwaidan, 1997.

(d) Finally, a hybrid four-step approach has been followed by many research studies (e.g. Rahman, 1998): (i) a preliminary list (List 1) consists of disclosure items included in other disclosure studies, (ii) this list is screened by referring to disclosure regulation in the researched country and so mandated items are excluded from the list (List 2), (iii) further, this list is pilot tested to exclude items irrelevant to disclosure practices followed (List 3) and (iv) List 3 is validated by experts. This approach is a mixed deductive and inductive approach and is undertaken by this study. Procedures are further explained in 7.3.2.4.

Number of Disclosure Items

There is no clear guidance in the literature on how many items a disclosure list should ideally contain. Some researchers argue that a disclosure list should include a wide range and number of disclosure items (e.g. Wallace, 1987; Owusu-Ansah, 1998). It has been pointed out that a disclosure score provides an indication of the extent of disclosure but not necessarily of the quality of disclosure (Marston and Shrives, 1991). It is suggested that an extensive list is therefore more likely to capture some qualitative characteristics of reported information (Wallace, 1987; Owusu-Ansah, 1998). In contrast, Schadewitz and Blevins (1997) argue for a relatively limited disclosure list. They emphasise the importance of concentrating on essential disclosures and neglecting insignificant ones. That is argued to be consistent with AICPA's Recommendation No.7 where standard setters should search for and eliminate less relevant disclosures (ibid.).

There is a wide variation amongst research studies on the number of disclosure. Buzby (1975) used 39 items, Firth (1979a) 48 items, McNally et al. (1982) 41 items and Chow and Wong-Boren (1987) 24 items. Later studies extended prior disclosure lists: Cooke (1991) used 106 items, Hossain et al. (1994) 78 items and Gray, S, et al. (1995) 85 items. In this study it is assumed that a relatively extensive disclosure index captures better the operation of voluntary disclosure. That is because there are items that give further insights into specific information areas.

Format

Research studies have used mainly three formats in the disclosure list. First, in early studies of accounting disclosure, the limited included items were presented as an

amorphous group without any classification (e.g. Cerf, 1961; Buzby, 1975). In the second format items were classified according to their location in financial statements, as in balance sheet, profit and loss account etc. (e.g. Chandra, 1974; Cooke, 1989a; Suwaidan, 1997, Tauringana, 1997).

A third format classifies items into categories according to their information content, namely: strategic, non-financial, and financial (Hossain et al., 1994; Hossain et al., 1995; Gray, S, et al., 1995; Meek et al., 1995). Disclosures are further subdivided according to homogeneous groups. This approach gives the opportunity to test firm-specific factors with specific areas of voluntary disclosure, and also broadly relates disclosure areas with potential interest of specific groups of users. This format has been applied by this study.

Types of Items

Items included in disclosure lists do not have the same degree of importance for all users since different groups hold different views on items and disclosure areas (Wallace, 1987). Disclosure items have different value and probably different meaning to different users[39]. Most of the research studies have assumed that the disclosure list includes a wide range of information items because it refers to all users (Cooke, 1989a, p.182 states '*...the focus of this research is not on one particular group but rather all users of corporate annual reports...*'). That is also a reason for an unweighted scoring method as will be discussed in 7.3.3.1. That is a reason disclosure lists include this wide range of items and do not concentrate only on financial information. The absence of several types of disclosure may lead to an indirect discrimination in favour of (or against) certain disclosure areas and in turn, in favour of (or against) specific groups of users. Cooke (1989a) develops a disclosure list where 70% (102/146) of disclosure items are financial. That is followed by other studies which are based on this disclosure list (e.g. Suwaidan, 1997; Tauringana, 1997).

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[39] For example, information on employee training may be perceived by employees as relevant to self improvement, increased possibilities of promotion and higher salary and may be viewed by financial analysts as relevant to product quality and future growth.

However, studies that concentrate on the information content of disclosures (third type of format), tend to develop more balanced disclosure lists. Gray, S, et al. (1995) developed a disclosure list which consists of 27% strategic, 32% non-financial, and 41% financial information, although their main user focus is the group of financial analysts. A similar stance is followed by Meek et al. (1995), Hossain et al. (1994), Hossain et al. (1995). This is also followed by this study, as being consistent with the research objectives and having technical merit. In the following sections (7.3.2.4 and 7.3.2.5) the construction of the voluntary disclosure for this study is discussed.

7.3.2.4 Construction of Voluntary Disclosure List: Criteria and Process

This section is concerned with the process of constructing the voluntary disclosure list of this study. Section 7.3.1 has explained the main steps in order to generate voluntary disclosure areas and disclosure items. In order to reduce the subjectivity of this procedure, specific criteria for selecting information items are developed. Although there is criticism in the literature for the lack of criteria in disclosure studies (e.g. Moore and Buzby, 1972, criticise Singhvi and Desai, 1967; Cooke and Wallace, 1989, criticise Tonkin, 1989) there is little direction in the literature. A first attempt was carried out by Buzby (1974b), who developed three general criteria related to the sample, the homogeneity of items and their relevance to annual reports. Lutfi (1989) and Rahman (1998) also provided criteria on disclosures. Considering these research studies, the particular research environment and objectives, the following criteria were developed on the selection of information items:

a) There should be theoretical and/or empirical support for included items and/or these should be recommended (Appendix 7-II).
b) Items should not be specifically required for disclosure by any accounting rule.
c) Items should be relevant to the disclosure practices of those companies listed on the ASE.
d) The information context of disclosure items should be of general applicability.
e) Items should be presented in an acceptable variability between different firms.
f) Greek auditors verify voluntariness of items included in the disclosure list.

Moreover, issues of relevance and comparability of disclosures were considered. Since in the case of Greece the needs of users are not known for this study prior literature of information relevance was considered (e.g. Lee and Tweedie, 1975; Wilton and Tabb, 1978; Stanga and Benjamin, 1978; Gray et al., 1984; Mitchell et al., 1981; Lewis et al., 1984). In order to achieve a higher degree of comparability of disclosure items between companies, since disclosure items are usually used in different terminology, syntax, form, and style, two steps were followed: a generally applicable wording of items employed, and two Greek auditors commented on the wording of disclosures. Based on the aforementioned criteria and research choices, the voluntary disclosure list was developed following the process outlined below.

The initial list was based on the list constructed by Gray, S, et al. (1995) and Meek et al. (1995). Both format and types of items were adopted for reasons explained in 7.3.2.3. This list was enriched by items used by prior studies to offer some theoretical and empirical support and also to achieve an element of comparability (criterion a). These items were checked with regulation provisions in Greece in order to eliminate mandatory items (criterion b). That led to a list consisting of 102 items. However, voluntary items should be relevant to the Greek practice (criterion c) and they should be of general applicability (criterion d) in order to eliminate irrelevant items. Thus, the disclosure list captures a better picture of the disclosure reality and does not penalise companies that do not disclose those items. Moreover, items should be presented in an acceptable variability (95% of companies or more than 3 items) between different firms (criterion e) since absolute disclosure (all companies scored close to 100%) has the same interpretive value as non-disclosure (0% by all companies), similarly to Firer and Meth (1986) and Haniffa and Cooke (2000). A pilot study, which was based on four annual reports of each three broader industries developed for this study (total 12 annual reports), excluded 30 items and modified the disclosure list so as to be applicable to the Greek established practice. These 12 annual reports are included in the final sample which may cause some bias. Voluntary items then were validated by Greek auditors (Arthur Andersen, Thessaloniki).

The resulting disclosure list contains three disclosure categories: corporate environment (26 items), social responsibility (19 items) and financial (27 items) which broadly refer to the categories developed by Gray, S, et al. (1995) and Meek et al. (1995) (Appendix 7-II). There are 10 sub-categories (compared with 12 of Gray, S, et al., 1995; and Meek et al., 1995) modified to meet disclosure practices of Greek companies. Once the disclosure list is developed, a crucial topic becomes the measurement process. That is reported in the following section (7.3.3).

7.3.3 Measuring the Extent of Voluntary Disclosure

The purpose of this section is to outline the approach and strategies employed in the measuring process. Several researchers emphasise the subjectivity associated with the measuring process of accounting disclosure (e.g. Wallace, 1987; Marston and Shrives, 1991). This section reports on specific criteria developed to enhance objectivity and replicability of measurement. This section provides a discussion of research choices and the measuring process based on theoretical and empirical aspects.

7.3.3.1 Reasons for an Unweighted Disclosure Index

There has been extensive debate on the weighting of the disclosure index. Some research studies have used an index weighted by reference to opinions of groups of users, mainly financial analysts. Cerf (1961), Singhvi and Desai (1971), Buzby (1975), Stanga (1976), Firth (1979a) and Malone et al. (1993) applied the opinions of financial analysts to weigh their disclosure indices. The final weight attributed to each disclosure was calculated as the average of the individual judgements/weights. The main rationale for this approach is that some information items are more relevant than others to decision making.

However, there seem to be weaknesses associated with this method[40]. Weightings indicate the relevance of information to only one group of users although items refer

[40] The fact that unweighted disclosure items are more heterogeneous than weighted items does not mean that results (overall disclosure scores) are heterogeneous. As Ijiri (1975) states inputs to economic decisions are always heterogeneous but that does not mean that goals of economic decisions are also heterogeneous. As many roads lead to the top of the same mountain heterogeneous means can produce homogenous ends (ibid.).

to many groups. Most research studies weighted disclosure items according to judgements of financial analysts, assuming that annual reports refer only to them, which appears difficult to justify. Individuals, even sophisticated users of accounts (e.g. financial analysts), may have poor insights into their own judgement process (Slovic et al., 1972; Ashton, 1974[41]) which may distort weighted results. Moreover, financial analysts weigh items in a non-decision situation, and so results are hypothetical and not real (Libby, 1981). Buzby (1975) also points out that financial analysts may value more highly those items that are more recently disclosed to them.

Fundamental characteristics of judgements/perceptions about disclosure items may derive implications for results and for interpretations. McBurney and Collins (1984) state that perceptions are selective, adaptive, ordinarily veridical, controlled by patterns and active. These actually mean that groups may be sensitive to only one fraction of information, perceptions may change by regarding other sources of information, sources have different validity, specific sets of information may derive unreasonable effects and finally judgements cannot be easily classified and interpreted. Moreover, judgements may be changed quite often according to external factors since they consistute a dynamic system (Firer and Meth, 1986). That may justify the notion that the concentration on a limited group may not necessarily lead to a complete or representative picture of adequate disclosure.

Dhaliwal (1980) states that different samples of financial analysts (as evidenced from research studies) assign significantly different relative importance to some items of information, which appears to challenge the validity of the weighted indices. Furthermore, the existence or non-existence of disclosure items impacts on the relative importance of disclosures (ibid.)[42]. Perceptions of financial analysts may differ significantly according to institutional characteristics and they tend to share different views in different countries (Firer and Meth, 1986). Cooke (1989a)

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[41] Ashton (1974) states '*...generally, individuals overestimate the extent to which they utilise the less important cues and underestimate the extent to which they utilise the more important cues, i.e. subjective weights are much more evenly distributed across cues than are statistically-derived weights*'.

[42] The main rationale of this argument is that there are substitute items that may attribute differential weights according to their availability.

criticised the subjectivity of the weighted method stating that it '...*unwieldy and probably futile*...' (Cooke, 1989a, p.197). Cooke and Wallace (1989), based on Spero's (1979, p.42) observations, accused the weighting system of being misleading because the value attributed to each item differs according to entities, transaction, user, industry, country, and the time of the study.

Spero (1979), Chow and Wong-Boren (1987) and Zarzeski (1996) used both weighted and unweighted indices. Their results identified no deviation for companies between the two different methods. Companies that disclosed more information disclosed more important information as well[43]. That was an outcome which presented strong support for the unweighted index. Many researchers based on these findings made use of an unweighted index (e.g. Cooke, 1989a,1991; Owusu-Ansah, 1998). Furthermore, Robbins and Austin (1986), investigating governmental reports, found that variables significant for the unweighted index were also significant for the weighted index. Support for the unweighted approach is also provided in the literature of human performance and decision-making (e.g. Einhorn and Hogarth, 1975).

This study adopts the unweighted approach. Items have the same value, assuming that they not refer to a specific user but to an average one. The main reasons for this decision have been present in the discussion. Another reason for this decision is the limited time and resources for the development of a weighted index by the main groups of users (e.g. shareholders, financial analysts, employees, creditors). Moreover, limitations relevant to the institutional characteristics of Greece is another reason that a weighted approach was not attempted.

7.3.3.2 Scoring Method

The unweighted method of scoring which is applied in this study employs a dichotomous procedure in that companies are awarded one (1) if they disclose a certain item and zero (0) if they do not disclose it and it is applicable to that

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[43] Spero (1979, p.64) states that '...*different weighting schemes are not as important as item selection because companies that view disclosure positively disclose many items and have high scores regardless of item weights*...'.

company. In practice three scores are calculated: Actual Voluntary Disclosure Score (*AVDS*), Maximum Possible Voluntary Disclosure Score (*MPVDS*), and Total Voluntary Disclosure Score (*TVDS*). The AVDS of a company's disclosure is

$$AVDS = \sum_{i=1}^{m} d_i$$

additive and is calculated according to the following formula:

Where:

AVDS = Actual Voluntary Disclosure Score.

d_i = disclosure score of i item of information. It is 1 if disclosed or 0 if it is not disclosed.

m = number of applicable voluntary items disclosed, where m ≤ 72.

When all the items of the list are scored then an index measures the relative level of disclosure for the company. That is the *MPVDS*, which varies among companies in the sample since all items are not relevant for all companies. The *MPVDS* is calculated according to the following formula:

$$MPVDS = \sum_{i=1}^{n} d_i$$

Where:

MPVDS = Maximum Possible Voluntary Disclosure Score

n = number of information items applicable and expected to be disclosed, where n ≤ 72.

The Total Voluntary Disclosure Score (TVDS) is the ratio of the scores given to a company to the maximum score that could be awarded. The extent that a company could be awarded is the ratio of the *AVDS* to *MPVDS* according to the following formula:

$$TVDS = \frac{AVDS}{MPVDS}$$

7.3.3.3 Measuring Voluntary Disclosure: Criteria and Process

This section is concerned with the process of measuring disclosure. The relative importance of developing criteria for the scoring process has been emphasised by many research studies (e.g. Wallace, 1987). He states that '*...financial disclosure is an abstract concept that cannot be measured directly...it is therefore essential, whatever scale one adopts to quantify disclosure, to provide evidence that the measures are valid and reliable by specifying the scoring procedure*' (ibid.). The specific scoring approach has been explained in section 7.3.3.2. Taking into account concerns about potential subjective judgment during the scoring process, specific criteria and guidelines about the scoring process are presented in order to provide a more complete research tool, which could be relied for replication.

When a disclosure area in annual reports is regarded as adequately fulfilling the description of the relevant item in the disclosure list, this company is awarded score one (1). Although there is some subjectivity in this part on companies which do not completely meet the description that was partly overcome by following steps to increase objectivity, as explained below (precise definitions, similar approach for all companies and flexibility). Disclosure of an item is a more straightforward and objective decision than the case of applicability in non-disclosure because it is easier to decide on observed situations rather on the assumed ones.

In the case of non-disclosure there are two different scores that may be attributed. A company is awarded zero (0) if an item is applicable to that company or no score (-) if the item is not applicable to the company. The scoring process is viewed diagrammatically in Figure 7-3. An item is considered applicable to a company when:

i. It is of a general nature which means that applies to all companies (e.g. employee information, information on directors, stock prices, products).

ii. It is a priori applicable to certain industries (e.g. productive capacity for manufacturing companies).

iii. It is a priori applicable to some types of companies (e.g. information on subsidiaries by parent companies).

iv. Events justify the existence of those items (e.g. acquisitions, disposals).

v. It is recommended and it is a common disclosure policy (e.g. computation of financial ratios).

Similarly an item is regarded non- relevant to a company when:

i. It is not of a general nature.

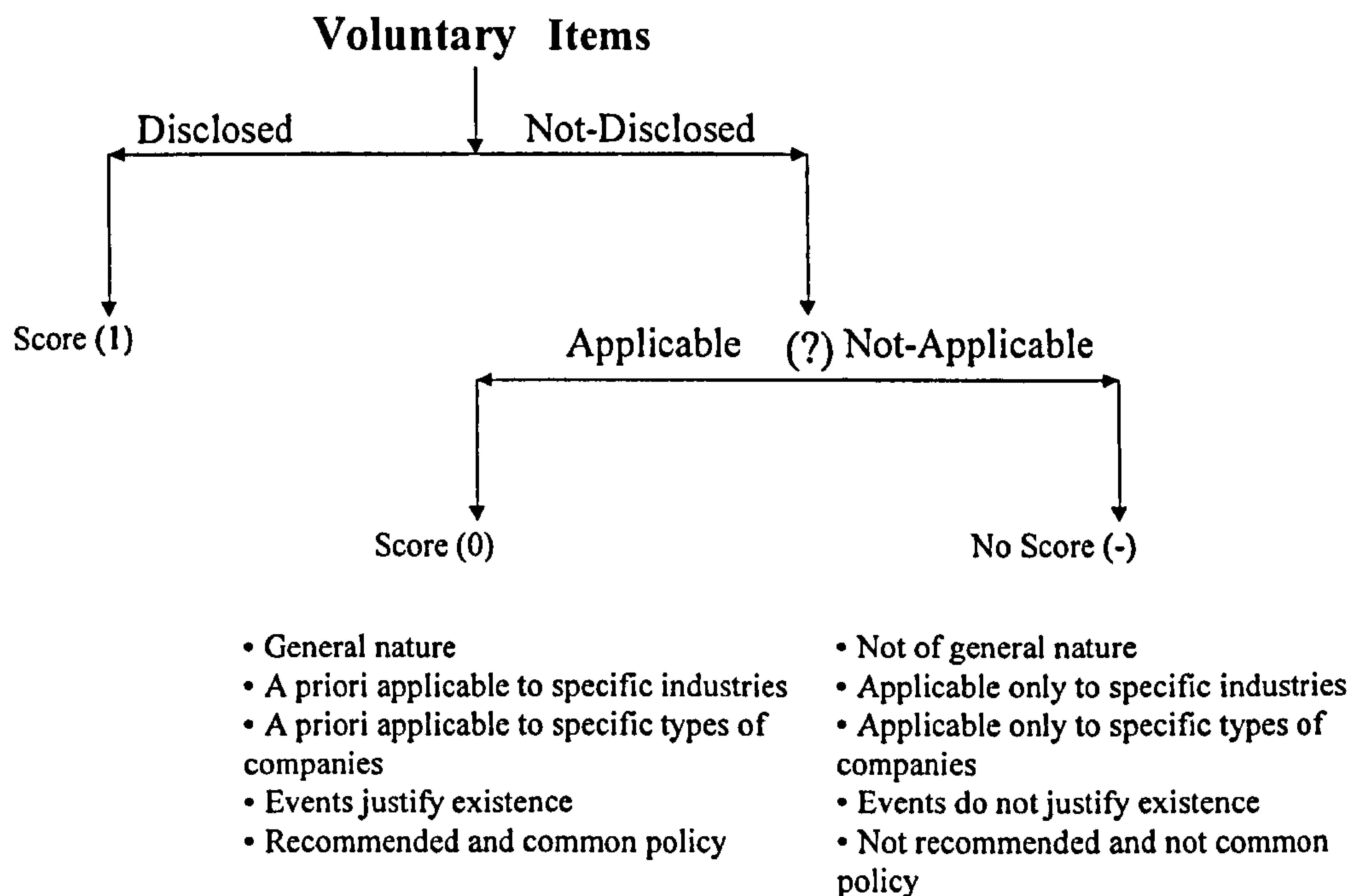
ii. It is applicable only to certain industries.

iii. It is applicable only to certain types of companies.

iv. There are no events to justify existence of that item.

v. It is not recommended and it is not a common policy.

Figure 7-3: Scoring Method



In order to enhance objectivity in the scoring process three main steps were followed: (i) definitions of the meanings of information items were written (Appendix 7-III), (ii) common procedures were followed in all companies, and (iii) the perspective of the 'expert' reader was taken. Accounting disclosures rely heavily on symbolic phrases and words, which represent things and actions in the socio-economic world, and whose use is based on the assumption that the message sender (company) and the message receiver (groups of users) have a common understanding of the meaning

of the symbols (Bedford, 1973). That refers not only to financial information where there exists higher potential for '*noise*' but also to any type of disclosure. Although the expert reader approach was undertaken, there may be issues that give rise to such limitations.

Although the aforementioned criteria were applied, the judgement on applicability/non-applicability of some of the disclosure items may provide some limitations. That is because the verification of applicability of information items is a particularly difficult problem for those researchers who lack inside knowledge. This problem is more intense with voluntary disclosure, which lacks a standardised regulatory structure. However, this seems to refer mainly to some specific items (e.g. donations, environmental programmes). That could be overcome by additional information (e.g. Buzby, 1975; Malone et al., 1993) or by interviewing companies' experts (e.g. Wallace, 1988a[44]). However, that is not always feasible or economical. In this study the following steps were followed: a meticulous review of the whole annual report provided a better picture of business operations and so a better specification of applicable items was achieved. This approach has been followed by many research studies (e.g. Cooke, 1989a; 1991; Gray, S, et al., 1995). Moreover, consideration of items of prior years (comparative figures) provided further valuable insights, similar to Owusu-Ansah (2000).

7.3.4 Interview Structure and Process

There are many options for the interview approach (Sekaran, 2000, p.264). However, semi-structured interviews provide more opportunities for the interviewees to speak freely about their beliefs. Moreover, this method was considered to be an appropriate method to conduct exploratory discussions in order not only to reveal 'what' and the 'how' but also to place more emphasis on 'why' (Saunders et al., 2000, p.245). Semi-structured interviews give also the potential for discovering issues that have not been considered before. Furthermore, semi-structured interviews allow the questions covered to vary from interview to interview and on the flow of

[44] Wallace (1988a) makes use of interviews with directors and any other corporate documents (e.g. press releases, reports) to decide over relevance of some items.

the conversation. That was particularly suitable in the interview sets undertaken, where there was variation in the expertise and experience of the categories of interviewees.

The questions that were posed to the interviewees by the researcher were developed on the basis of review of the literature (chapter 2) but with adjustment to the institutional and cultural characteristics of Greece, as well as according to the objectives of this study. The questionnaire was pre-tested by two Greek academics with industry experience in order to ensure questions were understood by the respondents. This measure was taken since many terms frequently have the potential to be misinterpreted. Pre-testing the questions led to some changes in the questions, the sequence or the wording. All interviews were conducted in Greek and then translated by the researcher (questions are set out in Appendix 7-IV).

A letter explaining the aim of the study and ensuring anonymity of responses was sent in advance to the respondents. The themes of the questions were given in advance as a reminder to the interviewee about the meeting and also to allow the interviewee time and scope to prepare for the meeting. Telephone calls one day before the meeting confirmed the arrangements. Face-to-face interviews were preferred to other methods (e.g. telephone interview). Face-to-face interviews can establish rapport and motivate respondents. Additionally, they can clarify the questions and clear doubts that the interviewee might have. Moreover, face-to-face interviews are more appropriate for the busy timetable of the people interviewed.

Five groups of interviewees were approached, namely directors, financial analysts, bankers, regulators, and external auditors. These are people that influence reporting practice directly or indirectly. All questions were covered in interviews. However, the sequence of the questions was not necessarily followed in all interviews. Interviewees were invited to mention any other matter not covered in the questionnaire. Sensitive issues, unless emerging naturally from the conversation, were usually left until near the end of the interview because this allowed a greater time for the respondent to build up some trust and confidence in the researcher. In

order to minimise bias, the interviewer avoided any sign of approval or disapproval of respondents' observations. The duration of interviews lasted between one hour and two and a half hours depending on the interviewee and the issues raised and discussed. Tape recording was used in the majority of interviews. Tape recording was not allowed by four of the regulators and one chartered accountant. Following the interview a transcript was sent to respondents to give them an opportunity to examine and agree with what had been said.

7.4 Measurement of Variables

This section reports on the operationalisation of the specific measures of variables tested in this study. This section should be read with the development of testable hypotheses, as presented in chapter 6. The purpose of this section is to point out the reasons for the specific measures of variables applied in this study and also to discuss their particular characteristics, relative strengths and limitations implied. There has been a considerable variation in the results of accounting disclosure studies for most of the disclosure variables (Ahmed and Courtis, 1999) which may be partially due to variance in measures operationalised.

There is a wide variation among different studies on the way corporate attributes are operationalised and measured. That may be because many corporate characteristics cannot easily be defined and measured directly or because there is no strong theoretical support for specific measures of the same variables. That may be also owing to reasons of data accessibility. However, some corporate characteristics may have a different nature from others. Some of them, for example, are subject to potential managerial manipulation through accounting policies (e.g. total assets, net income before tax) which may provide limitations of objectivity. Others are assessed by market forces (e.g. market capitalisation, share volatility) and they may be more objective but less stable over time. These may have implications for research outcomes and interpretations.

Several corporate characteristics are expressed in the form of ratios and hence they are subject to limitations of ratio analysis (Watts, 1993, p.451). Therefore, issues

related to measures of corporate variables are reported here, as evidenced from the empirical research literature and as they impact the specific decisions of this study. That may be partially due to the different measures of firm characteristics applied by different studies[45]. The measures of this study in reference to the current data are further outlined. Thus, the following sections aim to answer what is measured, in which way and why.

7.4.1 Structure-Related Measures

Structure-related variables are firm characteristics that are likely to remain stable over time (Lang and Lundholm, 1993). In the current study, they refer to size and gearing. Measures of size and gearing which have been tested by many studies and are operationalised in the current study are discussed as follows.

7.4.1.1 Size

There are many measures of corporate size operationalised in disclosure studies (Table 7-3).

Table 7-3: Measures of Size Tested in Disclosure Studies

Measures of Size	Research Studies
Total Assets	Cerf, 1961; Singhvi and Desai, 1971; Buzby, 1975; McNally et al., 1982; Cooke, 1989a, 1991; Malone et al., 1993; Wallace et al. 1994; Ahmed and Nicholls, 1994; Hossain et al., 1995; Wallace and Naser, 1995; Inchausti, 1997; Owusu-Ansah, 1998
Turnover	Firth, 1979a; Cooke, 1989a, 1991; Wallace et al., 1994; Ahmed and Nicholls, 1994; Meek, et al., 1995; Inchausti, 1997
Number of Employees	Lutfi, 1989; Tauringana, 1997; Patton and Zelenka, 1997
Market Capitalisation	Leftwich et al., 1981; Hossain et al., 1994; Wallace and Naser, 1995; Owusu-Ansah, 1998
Shareholders' Funds	McNally et al., 1982; Tai et al., 1990
Number of Shareholders	Singhvi and Desai, 1971, Wallace, 1987; Cooke, 1992
Net Income Before Tax	McNally et al., 1982; Wong, 1988
Market Capitalisation plus Book Value of Debt	Chow and Wong-Boren, 1987
Current Assets	Cooke, 1992
Bank Borrowings	Cooke, 1992

It seems to be a common trend in research studies to choose one measure of size (e.g. Singhvi, 1968; Chow and Wong-Boren, 1987; Hossain et al., 1994; Hossain et al., 1995; Meek et al., 1995) or two (e.g. Ahmed and Nicholls, 1994; Inchausti, 1997) to

[45] That may be particularly true for the industry factor for example and partially for performance related variables.

test associations with levels of disclosure. The most common measures seem to be total assets, turnover and market capitalisation. However, it has been argued (Newbould and Wilson, 1976) that the selection of one measure of size gives rise to possible criticism since the results of the empirical exercise may not be sufficiently general or conclusive. Furthermore, Cooke (1991) states that there is no theoretical reason to select any one measure of size rather than another. Different measures of size may be applicable to different types of disclosures and different countries (ibid.). For these reasons four measures of size are used in the current study. These are: (i) total assets, (ii) turnover, (iii) number of employees and (iv) market capitalisation.

The number of employees is an alternative non-financial size measure, less correlated with other financial measures (Newbould and Wilson, 1976), representing a variable for disclosure (pressure from labour unions, accountability of more complex organisations, higher visibility in public eye) which meets the objectives of the current research.

While the conventional financial measures of size may be subject to limitations resulting from accounting policies or historical cost data, the number of employees depends on internal or external factors which may result in fluctuations in its number (e.g. seasonality), market capitalisation is a size measure which is not controlled by the management but is assessed by market forces. Daily price fluctuations impact on the magnitude of this measure, which may be a limitation of it. However, since it is estimated by the market it may be more objective than other measures of size (Barret, 1977). It could be argued that this measure is market related since it is subject to market fluctuations[46]. However, for convenience it is reported here. Market capitalisation was estimated as the closing price at 31/12/1997. Other measures were taken from annual reports. Descriptive statistics of these measures are provided in the following Table (7-4).

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[46] For example Wallace and Naser (1995) have classified it in market related characteristics though it is analysed under size in structure related variables.

Table 7-4: Descriptive Statistics of Size Measures

Descriptive Statistics	Total Assets (m GRD)	Turnover (m GRD)	Number of Employees	Capitalisation (m GRD)
Mean	44530	33437	693	63663
St. Deviation	183195	90654	2629.101	289452
Minimum	368	169	7	861
Maximum	1713952	810808	24481	2640235
Median	16955	12302	260	10184
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.000	.000	.000	.000
Normality rejected	yes	yes	yes	yes

One holding company was excluded from number of employees because it reported a zero number. Descriptive statistics and the Kolmogorov-Smirnov test (Lilliefors-Significance) suggest that all measures of size are not normally distributed and obviously positively skewed.

7.4.1.2 Gearing

Gearing is another variable widely tested in studies of accounting disclosure. There is a wide variation in the measures of gearing in the literature. Some of those are presented in Table 7-5:

Table 7-5: Measures of Gearing Tested in Disclosure Studies

Measures of Gearing	Research Studies
Book value of debt divided by market value of equity plus the book value of debt	Chow and Wong-Boren, 1987
Long term debt divided by owners' equity	Malone et al., 1993; Hossain et al., 1994; Wallace et al., 1994; Hossain et al., 1995; Meek et al., 1995
Total liabilities divided by equity	Inchausti, 1997; Patton and Zelenka, 1997
Debt divided by total assets	Raffournier, 1995

Although there is no single measure of gearing that is recognised as theoretically superior, it has been argued (Watts, 1993, p.475) that since gearing is more concerned with the relationship between the long term providers of funds and the long term resources within the company, it is probably better to consider long term debt to net assets or equity for the estimation of gearing ratio. This measure conveys the asset backing for debt and as such is a security measure. Moreover, this is of particular relevance to users, primarily long term lenders and investors (ibid). Long term debt to equity is the measure in this study.

Table 7-6: Descriptive Statistics of Gearing

Descriptive Statistics	Gearing
Mean	0.1405
St. Deviation	0.2556
Minimum	0
Maximum	1.4617
Median	0.0231
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.000
Normality rejected	yes

One company was excluded because it reported negative gearing (as a result of negative equity). A Kolmogorov-Smirnov test (Lilliefors significance) indicates that gearing is not normally distributed (Table 7-6).

7.4.2 Performance-Related Measures

Performance-related variables in the current study are time period specific, representing information to which management may have preferential access and which is likely to be subject to disclosure within the period (Lang and Lundholm, 1993). Performance-related variables have been used widely in literature as variables of signalling theory. However, all the studies applied measures of performance which are regarded as optimal, excluding variables which may be perceived as satisfactory by the users, but not optimal.

It has been suggested that management does not seek optimal performance but satisfactory levels (Smith, 1976). That is supported by many studies in management literature, which claim that the main objective of the management is the attainment of satisfactory levels (e.g.. Margolis, 1958; Cyert and March, 1963; Williamson, 1964 cited in Smith, 1976). However, what is a satisfactory level of performance may be vulnerable to subjectivity because it is influenced by very many factors which may be related to the size of the company, the past performance, industry characteristics (growth, competition etc), economic indicators and qualitative elements. However, there is consensus in research studies (see Smith, 1976) that satisfactory levels can be assessed in reference to past performance and industry performance.

A conventionally satisfactory level of performance may be the relative change of performance compared to the previous year, since the comparison with past years has been argued to be a satisfactory level of performance (Smith, 1976). For example, a 10% rate of return may not be regarded as satisfactory if the company's (company A) rate of return last year was 15%. On the other hand, a 5% rate of return may be more satisfactory if last year's rate of return was –5% (company B) which may create more incentives for increased levels of voluntary disclosure. Considering only the optimal measures the explanatory power these performance related variables may be reduced. Thus, a signalling model which considers also satisfactory and not only optimal measures may be of enhanced explanatory power.

Therefore, it was decided in the current study to apply both current year and relative measures of performance. Two performance related variables are examined here: profitability and liquidity. Relative measures of annual change in performance are estimated according to the following formula:

$$\frac{\textit{Current Year's Measure} - \textit{Last Year's Measure}}{|\textit{Last Year's Measure}|}$$

This measure may have some limitations in terms of low values of the denominator, especial if last year's performance is zero.

7.4.2.1 Profitability

Profitability is a measure of the efficiency of a company's performance, defined as the financial outputs achieved from the given financial inputs (Watts, 1993, p.452). There is a considerable number of measures of profitability in the literature. However, empirical studies were concentrated mainly among three measures of profitability: return on net worth (Singhvi and Desai, 1971; Malone et al., 1993), earnings margin i.e. net income divided by net sales (Singhvi and Desai, 1971; Malone et al., 1993; Meek et al., 1995), return on assets (McNally et al., 1982; Suwaidan, 1997). The last was chosen for this study.

Return on assets (net income divided by total assets) is used in evaluating whether management has earned a reasonable return on the assets under its control (Meigs et al., 1996, p.382). Return on assets was chosen because it could be regarded as both an indicator of management's operating efficiency and also as the total return

accruing to the providers of capital, independent of the source of capital (White et al., 1994, p.226). Moreover, return on assets is one of the most relevant measures, particularly for the investment community (Gibson, 1987).

Table 7-7: Descriptive Statistics of Profitability

Descriptive Statistics	Profitability	
	Current Year	Relative Change
Mean	0.0944	-0.1451
St. Deviation	0.1132	1.8995
Minimum	-0.472	-16.605
Maximum	0.6007	2.4266
Median	0.0918	-0.0002
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.000	.000
Normality rejected	yes	yes

The Kolmogorov-Smirnov (Table 7-7) test suggests that data is not normally distributed.

7.4.2.2 Liquidity

The main measures of liquidity are the current and quick ratios (Watts, 1993, p.469). Current ratio (current assets divided by current liabilities) has been used by studies in accounting disclosure as a measure of risk (Wallace et al., 1994; Wallace and Naser, 1995). Quick ratio has been also used by Owusu-Ansah (1998). In this study current ratio was applied as a measure of liquidity[47] since it has been used by studies in the same field and it is also regarded as the most representative liquidity ratio (White et al., 1994, p.247). Two measures of liquidity have been applied. The relative measure indicates the change of liquidity over one year.

Table 7-8: Descriptive Statistics of Liquidity

Descriptive Statistics	Liquidity	
	Current Year	Relative Change
Mean	1.8873	0.1552
St. Deviation	1.3120	0.7815
Minimum	0.5124	-0.4029
Maximum	8.4104	6.6530
Median	1.5245	0.0184
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.000	.000
Normality rejected	yes	yes

[47] Quick ratio was also used and gave similar results in both univariate and multivariate analyses.

A Kolmogorov-Smirnov test (Table 7-8) reveals that both measures of liquidity are not normally distributed.

7.4.3 Market-Related Variables

Market-related variables in the current study are either time period specific or relatively stable over time and they are either within or outside the control of the firm (Wallace et al., 1994; Wallace and Naser, 1995). Wallace and Naser (1995) propose that it would be interesting to know how disclosure quality reacts to industry and market-specific variables (such as market share). Market-determined firm characteristics may be of special importance since they are directly related to end users of annual reports. That is because strategies on disclosure policies are expected to be influenced by both firm-specific and market factors. Research studies have not concentrated on those characteristics, probably because it is an especially time-consuming process compared to firm determined characteristics (e.g. structure and performance related) which could easily be gathered from annual reports. Limitations on data accessibility and processing, and also the difficulty of relative interpretations, may be some other factors.

There are six market-related variables in this study. Three measures are time-period specific and they are not controlled by the management, since they are determined by market forces. These are: share marketability, share volatility and share annual yield. The other three market related variables which are more stable over time are the following three: industry, type of report and listing status. In spite of the relative importance of the time period specific variables, the lack of relevant research impacts on this examination. Lack of direction in the literature may diminish richness of interpretation and lack of comparability may limit the explanatory power of results. These measures, since they can be viewed as proxies of signalling, are examined by referring to both current year and relative measures.

7.4.3.1 Share Marketability

Marketability is measured by the following ratio[48]:

$$\textit{Share Marketability} = \frac{\textit{No. of Shares Traded within the Year}}{\textit{No. of Shares at December } 31^{st}}$$

Data were obtained from the ASE.

Table 7-9: Descriptive Statistics of Share Marketability

Descriptive Statistics	Share Marketability	
	Current Year	Relative Change
Mean	0.7002	0.8423
St. Deviation	0.5463	2.5238
Minimum	0.0085	-0.8980
Maximum	2.9802	18.5016
Median	0.5753	0.2693
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.009	.000
Normality rejected	yes	yes

A Kolmogorov-Smirnov (Lilliefors-significance) test indicates that both measures of marketability are not normally distributed (Table 7-9).

7.4.3.2 Industry

There is a particularly broad range of industry categorisation in prior studies. It seems that almost every study adopts a different approach to classify different companies. That may be related to the different economic environments which may justify different industry categories. Some of the classifications are seen in Table 7-10:

Table 7-10: Industry Categorisation in Disclosure Studies

Industry Categorisation	Research Studies
a) capital goods, b) consumer goods, c) commodity goods, d) other goods	Gray and Roberts, 1989
a) conglomerate, b) manufacturing, c) services, d) trading	Cooke, 1989a; 1991
a) manufacturing, b) non-manufacturing	Wallace et al., 1994
a) conglomerates, b) non-conglomerates	Wallace and Naser, 1995
a) metals, building materials, and construction, b) engineering, c) consumer goods and services, d) oil, chemicals and mining	Meek et al., 1995
a) conglomerate, b) manufacturing, c) mining, d) others	Owusu-Ansah, 1998
a) industrial, b) non-industrial	Abd-Elsalam, 1999

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[48] If the company has increased its share capital the 'Total No. of Share Traded' is adjusted (ASE, 1998b).

Since there is no direction in the literature about the categorisation of industry in this study industries are categorised as: (i) services, (ii) consumer product and (iii) industrial product companies. These categories are regarded as being relevant to Greece. Industries are categorised as controlling for services. A firm's industry is defined as the main economic activity from which it derives its revenue. Differences between these groups (different operations, customers' wants, public visibility, growth, competition etc) may provide incentives for differing disclosure policies.

7.4.3.3 Share Volatility

Volatility, as a measure of risk, is measured by variance or standard deviation (Weston and Copeland, 1992; Bodie et al., 1999). Volatility in the current study is defined as the standard deviation (σ) of the logarithmic price changes measured at regular intervals (ASE, 1998b). The method of calculation is as follows: the volatility is calculated from the closing price changes for each day of the year: X_i is the ratio of the logarithmic change of the closing prices in the interval between two working days (e.g. the closing price of the security over the closing price of the previous working day). The dividend is added to the previous calculation at the ex coupon rate. If P_i is the closing price and P_{i-1} is the previous day closing price and D is the dividend then:

$$X_i = Ln \frac{P_i + D}{P_{i-1}}$$

Volatility is measured according to the following formula:

$$\textbf{Year's Volatility} = \sigma * \sqrt{\textbf{No of Trading Days in ASE}}$$

Data were obtained from the ASE.

Table 7-11: Descriptive Statistics of Share Volatility

Descriptive Statistics	Share Volatility	
	Current Year	Relative Measure
Mean	0.4565	0.5131
St. Deviation	0.0693	0.3775
Minimum	0.2875	-0.2465
Maximum	0.6519	1.5541
Median	0.4536	0.4670
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.200*	.200*
Normality rejected	no	no

Considering the descriptive statistics and the Kolmogorov-Smirnov test (Lilliefors-significance) it seems that both measures of volatility are normally distributed (see Table 7-11).

7.4.3.4 Share Yield

Share yield means the share's return over one year (ASE, 1998b). Share return has been measured by a conventionally used formula (see Brealy et al., 1999). This formula is the following:

$$\text{Year's Return} = \frac{(1+R)\ \text{Closing Price on Dec 31st this year}}{\text{Closing Price on Dec 31st last year}} - 1$$

Where:

$$R = \frac{\text{Dividend}}{\text{Share price at the Ex - Dividend day}}$$

The R coefficient denotes the dividend yield at the Ex-Dividend day. Measures of current year and the relative change to last year are applied.

Table 7-12: Descriptive Statistics of Share Yield

Descriptive Statistics	Share Yield	
	Current Year	Relative Measure
Mean	0.3557	3.7361
St. Deviation	0.6756	8.8966
Minimum	-0.641	-8.4207
Maximum	3.2809	48.8588
Median	0.1688	1.2689
Kolmogorov-Smirnov (sig.) (Lilliefors-Significance)	.000	.000
Normality rejected	yes	yes

As seen in Table 7-12, the assumption of normality is rejected for both measures of share yield.

7.4.3.5 Type of Report

Type of report variable expresses the relative managerial stance to disclose corporate information in a foreign language. Companies providing dual (English) language reporting have a higher average ratio of foreign sales to turnover than companies reporting only in Greek. Pressures of foreign users, explained in 6.3.10, are incorporated into the Greek version of report since an analysis of an English language version observed a word-for-word translation of the Greek script. Companies that do not provide an English version of their annual report are categorised as zero (0). Companies reporting in Greek and English are categorised as

one (1). Where companies did not send an English language version, a telephone enquiry confirmed the relative categorisation of companies.

7.4.3.6 Listing Status

Listing status has been applied in studies of accounting disclosure in order to test whether companies with different listing status engage significantly different policies of accounting disclosure. Listing status has been defined as companies listed in a domestic stock exchange/unlisted companies (Firth, 1979a; Wallace et al., 1994; Inchausti, 1997), foreign listing status/domestic listing status (Cooke, 1989b, 1991; Meek and Gray, 1989; Hossain et al., 1994; Hossain et al., 1995; Meek et al., 1995).

Companies belonging in the main market and companies belonging in the parallel market (secondary market) were distinguished in order to investigate variability in their voluntary policies. That has been feasible in the case of Greece since both groups of companies are subjects to the same disclosure requirements in annual accounts. While companies belonging in the parallel market are categorised as zero (0), companies belonging in the main market are categorised as one (1).

7.5 Econometric Methods Used

The purpose of this section is to outline the univariate and multivariate analyses employed to test the hypotheses developed in chapter 6.

7.5.1 Data Examination

Many statistical tests are based on the assumption that the data come from a normal distribution or that a sufficiently large sample is available to appeal to asymptotical normality of the test statistic (Cooke, 1998). Examination of the data gives insights to choices about econometric techniques used to test the hypotheses. Data have been examined by box-plots, Q-Q plots, histograms, stem-and-leaf plots and the Kolmogorov test with Lilliefors significance.

7.5.2 Econometric Methods Used in Testing Hypotheses

7.5.2.1 Univariate Analysis

Data in this study do not meet the conditions of parametric tests; data should be measured by interval or ratio scale, samples should be drawn from populations

whose variances are homogeneous and distributions should be normal (Cramer, 1998, p.73). Thus, non-parametric tests are applied. Continuous independent variables are tested by the Kendall rank correlation coefficient (tau). The Kendall test is applied since it has been argued to be superior to that of Spearman (Griffiths, 1980; Noether, 1981; Gibbons, 1993). Furthermore, it has been used by many studies of accounting disclosure (e.g. Buzby, 1975; Belkaoui and Kahl, 1978; Firth, 1979b; Suwaidan, 1997). Categorical (dummy) variables are tested by Mann-Whitney *U* for two category-variables and Kruskal-Wallis *H* for three category-variables.

7.5.2.2 Multivariate Analysis

It has been argued (Koutsoyiannis, 1977) that there are three basic criteria, which determine the relative robustness of econometric models. These are: (i) the economic criterion, which means there must exist some theoretical or/and empirical rationale to suggest certain relations that are tested each time by the econometric models. That has been analytically demonstrated in chapter 6; (ii) statistical criterion, which in the current study is the minimum MSE for reasons explained below and (iii) econometric criterion, which regarding the specific approach of the current study, takes the form of not violating the assumptions undertaken, and in particular the assumptions of no substantial multicollinearity and normal distribution.

While traditional ordinary least squares (OLS) is the most commonly used estimation method in accounting disclosure literature, mainly for reasons of simplicity and moderate requirements in the amount of data (Koutsoyiannis, 1977), rank regression is a new trend in the area. Rank regression has been applied in several prior studies (Lang and Lundholm, 1993; Wallace et al., 1994; Wallace and Naser, 1995; Lang and Lundholm, 1996; Owusu-Ansah, 1998; Cooke, 1998; Abd-Elsalam, 1999).

Rank transformations have been found to have many advantages. Some of them are the following: i) by construction, they are distribution free (McCabe, 1989) and they mitigate the impact of measurement errors, outliers and heteroscedastisity (Cheng et al., 1992), ii) there is no loss of information that would lead to loss of power (McCabe, 1989) and contrary to other transformations (logs, powers, roots etc.) rank

method is able to correct for both kurtosis and skewness (Cooke, 1998), iii) there is sufficient theoretical and empirical evidence about the efficiency of these methods (e.g. Hettmansperger and McKean, 1977; Draper, 1988).

However, rank regression is not free of disadvantages. Cooke (1998) highlights the most significant: a) regression coefficients (β_i) are difficult to be interpreted, b) testing the significance of the estimated coefficients is one of the main disadvantages and c) the tests are effectively non-parametric and as such are weaker than parametric tests.

An alternative approach to rank regression has been proposed by Cooke (1998), based on normal scores. Actual observations are transformed to the normal distribution following this method, referred to as van der Warden. This transformation is achieved by dividing the normal distribution into the number of observations plus one segment on the basis that each segment has equal probability (ibid.). This approach, which could be considered as an extension of the rank method, has been taken by Cooke (1998) and Abd-Elsalam (1999). Although normal scores are argued to be a superior method (Cooke, 1998), it has been empirically demonstrated that this may not be always the case, since transformation adequacy is highly dependant on the structure of the data (Cooke, 1998). Thus, several transformations can be applied to ensure the robustness of the results.

In this research study both ranks and normal scores are applied. Percentile ranks, as an extension of ranks, are employed. Percentile ranks have been used in many prior studies (Lung and Lundholm, 1993; Wallace and Naser, 1995; Lung and Lundholm, 1996; Abd-Elsalam, 1999). Percentile ranks attribute one (1) to the highest score and zero (0) to the lower. They are therefore more general than ranks and they are not dependent on the maximum score (Wallace and Naser, 1995). They are estimated according to the following form:

$$(\text{Rank-1}) / (\text{number of firms} - 1)$$

Statistical Criterion

A great deal of importance for econometric studies lies in the specification of the criterion for selecting the best regression model. While Achen (1982) states that '*...the selection of a suitable regression is an art, not a science...*' emphasising the diversity and the non-standardisation of this procedure, the regression that should be selected is the one that provides the best fit. A common measure of the satisfactoriness of regression models is the adjusted R square (${}_{adj}R^2$). However, it is often argued that the maximisation of ${}_{adj}R^2$ is not the purpose of regression analysis (Schroeder et al., 1986), which is to obtain dependable estimates of the true population regression and draw statistical inferences about them (Gujarati, 1995). The minimisation of the Mean Square Error (MSE) seems to be regarded as a valid criterion by many statisticians (e.g. Koutsoyiannis, 1977; Achen, 1982; Brown, 1991; Bails and Pepper, 1993). This is the approach that has been proposed as the most suitable for studies in accounting disclosure (Cooke, 1998) and it has also been applied in other empirical studies of accounting disclosure (e.g. Cooke, 1998; Abd-Elsalam, 1999). This criterion is also undertaken by this study.

In examining the statistics, it was noted that ranks and percentile ranks report the same significant variables, similar ${}_{adj}R^2$ but percentile ranks report lower MSE. That was the reason that percentile rank models are considered to be superior to rank models. Hence, percentile ranks and normal scores will be critically compared in order to select the final model of regression analysis. Ranks are not presented for reasons of economy and non-significance. The basic conditions to regression analysis are reported in 9.3.1 in relation to the data. The particular approach to multicollinearity is explained as follows.

7.5.2.3 Multicollinearity

Multicollinearity tends to be a serious problem when the aim of the regression is to assess the relative influence of independent variables (Mendenhall et al., 1986) which is a main objective of the current study (1.2.3). Whether multicollinearity is a problem depends on the degree of collinearity. There are many ways to detect multicollinearity (Gujarati, 1995, p.335-359). The current study applies three different tests to detect multicollinearity in a more reliable manner, namely: i) a

matrix of bivariate correlations, ii) Variance Inflation Factor (VIF) iii) eigenvalues and condition index. These rules of thumb are briefly discussed and their results, as applied in the current data, are presented as follows:

i. The most commonly used test for multicollinearity, in prior studies, is the inspection of a matrix of bivariate correlations, where the correlations between all pairs of independent variables are examined. There is a continuing debate between econometricians on the cut off value which has not been standardised (depending on many factors such as sample or goal of regression)[49]. This study adopts a rather strict criterion of determining the cut-off value to be less than .7 ($r \leq .7$), which may be prudent considering calls for cut-off values.

However, controversy on cut-off values, inability to provide indications of linear (or near-linear) dependencies on the data and insights into collinear relationships involving three or more variables (Griffiths et al., 1993, p.436) are some inherent limitations of this test. Moreover, considering that multicollinearity may exist even when simple correlations are comparatively low, less for example than $r = .5$ (Gujarati, 1995, p.336) it was decided to run two more tests presented below:

ii. VIF as a measure of multicollinearity is estimated by the following equation:

$$VIF = 1 / (1 - R^2)$$

where R^2 is estimated by regressing each independent variable on all other independent variables. The larger the value of VIF the more troublesome or collinear is the variable. As a rule of thumb, if the VIF of a variable exceeds 10 (VIF > 10)

[49] According to Farrar and Glauber (1967) multicollinearity is not harmful with correlation between variables smaller than $r = .8$ or $r = .9$. A value of around $r = .8$ has been argued to be an appropriate cut-off value for other statisticians (see Huang, 1970, p.149; Berry and Feldman, 1985). However, for some other statisticians a correlation coefficient of $r \geq .8$ (Gujarati, 1995, p.335) or even $r \geq .7$ (Anderson et al., 1993) is a serious problem. However, Judge et al., (1988) warn that such cut-off points may be arbitrary since '*pairwise correlations can give no insight into more complex interrelationships*'.

this variable is regarded as highly collinear (Gujarati, 1995, p.338). That happens when R^2 exceeds .9 ($R^2 > .9$) (ibid.).

iii. Eigenvalues and the condition index (CI) have been proposed by many econometricians as the best multicollinearity diagnostic (Gujarati, 1995, p.338) considering its relative sophistication. It is estimated according to the following formula:

$$CI = \sqrt{\frac{\text{Max eigenvalue}}{\text{Min eigenvalue}}} = \sqrt{k}$$

Gujarati (ibid.) suggests as a rule of thumb that if k is between 100 and 1000 there is moderate to strong multicollinearity and if it exceeds 1000 there is severe multicollinearity. Alternatively if CI is between 10 and 30, there is moderate to strong multicollinearity and if it exceeds 30 there is severe multicollinearity. Multicollinearity of the data is explained in (9.3.3).

7.6 Summary and Conclusion

This chapter has described and evaluated the research methods employed in this research study. Thus, it outlined the main techniques and procedures to collect data (7.2). These were analysed by the specific research instruments developed by this study (7.3). The construction of the voluntary disclosure index was particularly considered and analytically explained in this chapter. That consisted of the construction of the voluntary disclosure list and the measurement approach undertaken. Reasons for researching annual reports, developing a new disclosure list, selecting an unweighted approach were explained in relevance to particular aspects of selecting and measuring voluntary information items. Specific criteria were demonstrated to enhance objectivity and replication. Interview structure and research choices on the interview process have been also outlined.

Section (7.4) has explained issues relevant to this study in the measurement of variables. Its main aim was to provide adequate information to be used for a better understanding of the data and also to provide answers on what is measured, in which way and why. Measures were classified into three non-mutually exclusive categories:

structure related, performance related and market related measures and were analysed. Since the current year measures of performance variables have been challenged about their explanatory power to a signalling model, relative measures have applied to all performance measures. Furthermore, the current section provided the descriptive statistics of these measures and also tested their normality. Non-normal distribution affects the chosen decisions of appropriate econometric tests.

Finally, the main methods of testing data have been examined in 7.5. This examination implied that non-parametric tests should be used. Univariate and multivariate analyses were briefly described. While Kendall (tau) is used for continuous variables, Mann-Whitney U and Kruskal-Wallis H are applied for categorical (dummy) variables. Multivariate analysis takes the form of multiple regression in this study. The particular approach, based on percentile ranks and normal scores, was described. The approach to multicollinearity was also explained. These will be empirically demonstrated in chapter 9.

CHAPTER 8

8. Extent of Voluntary Disclosure

8.1 Introduction

The purpose of this chapter is to address the first research question (1.4). This chapter analyses and evaluates the results of the measurement of voluntary disclosure as published in annual reports of companies listed on the ASE for 1997. It provides description and analysis of the overall voluntary disclosure and specific categories of voluntary disclosure setting an agenda for quantitative analysis (chapter 9) and interviews (chapter 10). The discussion covers disclosure having relatively high or low scores and disclosures that have received particular attention previously in theory and practice. Some of these items are highlighted to be further discussed and evaluated in chapter 10. This chapter is organised as follows: Section 8.2 provides evidence and further insights into the measurement of the extent of overall voluntary disclosure scores. Section 8.3 discusses the disclosure scores of empirical disclosure studies. Section 8.4 reports on the disaggregated analysis of voluntary disclosure scores. Finally, conclusions are summarised in 8.5.

8.2 Extent of Voluntary Disclosure

The purpose of this section is to discuss and evaluate the scores of overall voluntary disclosure. Greek companies show a low overall extent of voluntary disclosure (37.83%) meeting the expectations set in chapter 3. Table 8-1 indicates that there is a considerable variation and skewness of scores in those voluntary disclosure practices published in annual reports. Furthermore, results also indicate that on average, Greek listed companies report low levels of voluntary disclosure compared to what they could have disclosed and also according to international practice (allowing for institutional differences, time lag and particular research characteristics among relevant studies as discussed in 8.3). This indicates that it is worth examining more closely the categories where the differences lie.

Table 8-1: Frequency Distribution of Disclosure Scores among Companies

Frequency Distribution among Companies		
Disclosure Score	**No of Companies**	**Percentage**
Above 80%	0	0.00%
70% < score ≤ 80%	3	3.45%
60% < score ≤ 70%	6	6.90%
50% < score ≤ 60%	7	8.05%
40% < score ≤ 50%	19	21.84%
30% < score ≤ 40%	20	22.99%
20% < score ≤ 30%	22	25.29%
10% < score ≤ 20%	8	9.20%
0 ≤ score ≤ 10%	2	2.30%
Total	87	100%

8.3 Comparison of Disclosure Scores among Different Studies

There is a wide variation in the extent of voluntary disclosure among different empirical studies. Although it would be particularly interesting to compare disclosure scores among different studies (referring to the same or different countries), that would be a particularly risky attempt for the reasons discussed in this section. Suwaidan (1997) reports an average of 39% score for actual voluntary disclosure by listed Jordanian companies, as measured by an 75-item disclosure index. This score could have been higher if there were not included items which were not disclosed by any company. In the light of this discussion the poor levels of voluntary disclosures by Greek companies appear even lower.

Cooke (1991) reports an average disclosure of 16.7% for Japanese companies as measured by a 106-item index and of 36.97% for Swedish companies as measured by a 146-item index. This scores would have been higher if unlisted companies were excluded. Firer and Meth (1986) report a consequent increase of voluntary disclosure for 1979 to 1983 ranging from 24.45% to 29.7% respectively. Considering the consequent increase of voluntary disclosures these results cannot be directly compared with the results of this study because of the time lag.

A general overall conclusion raised by the comparisons of different studies is that results cannot be directly comparable since they are uneven in many issues such as the quantity and quality of items included in the indices and also the particular approach of disclosure measurement. A token example of that could be the reported

results by McNally et al. (1982) and Hossain et al. (1995) who investigate voluntary disclosure in the same institutional environment (New Zealand). McNally et al. (1982) report an average of 24% as measured by a 41-item disclosure index. However, results could have been higher if seven zero scored items had not been included. Hossain et al. (1995) report a considerably lower score (18%) as measured by a 95-item index. However, such a result could hardly be interpreted as an underdevelopment of the accounting practices of listed New Zealand companies. On the contrary, Hossain et al. (1995) argue for a general increase of sophistication of accounting reporting in the accounting environment.

Therefore, if results cannot be easily comparable in the same institutional framework, cross-national comparison is a very risky endeavour, particularly when indices differ materially. For example, Tauringana (1997) reports 33.64% of overall voluntary disclosure by UK listed firms. Having checked the voluntary items included in his index, which are all voluntary in Greece, and having examined the Greek annual reports, it became evident to the researcher that no Greek company would disclose even 10% of those items. Considering the aforementioned discussion, comparisons would be based on common individual items, when that is feasible, rather than overall disclosure themes. The relative lack of disaggregated scores in research papers places some limitations on these comparisons.

8.4 Disaggregated Analysis of Voluntary Disclosures

Although the discussion of the overall scores of voluntary disclosure has revealed a part of the accounting disclosure practice in Greece, an analysis of the scores of specific information themes is considered appropriate in order to gather further insights into voluntary disclosure practice. This approach is proposed by Wallace (1988b) who argues that a disaggregated analysis could highlight sharply divergent patterns of quality among different types of disclosures. Companies place different emphasis on different disclosures, generating a rather patchy pattern (ibid).

Therefore, particular information themes will be discussed in three major information categories and 10 sub-categories as developed in 7.3.2.4. These are discussed in the

following section. Table 8-2 summarises the main results. Individual items will also be discussed, as they are included in specific sub-categories. Analytical results of the individual items are provided in Appendix 8-I.

Table 8-2: Disclosure Scores

Information Groups	No of Items	Average Score (%)	Standard Deviation (%)
Overall Index	72	37.83%	48.50%
1. Corporate Environment	26	59.03%	49.19%
General Information about Economic Environment	4	68.10%	46.67%
General Corporate Information	9	60.42%	48.93%
Specific Corporate Information	10	63.29%	48.23%
Information about Directors	3	30.27%	46.03%
2. Social Responsibility	19	16.05%	36.72%
Employee Information	13	11.67%	32.12%
Social Policy	6	36.67%	48.29%
3. Financial	27	30.91%	46.22%
Segmental Information	6	32.60%	46.92%
Financial Ratios	6	39.08%	48.84%
Financial Review	6	31.40%	46.46%
Market Related Information	9	23.60%	42.49%

As may be seen from the results of Table 8-2 there are significant differences among different types of information sub-sets. That was expected based on the empirical evidence of relevant studies which applied a similar list format (e.g. Gray, S, et al., 1995; Meek et al., 1995). Overall results of these studies show that corporate environment is the most frequently disclosed followed by the financial information, which is similar for relevant studies (ibid.).

8.4.1 Category 1 - Corporate Environment Information

Greek listed companies exceed mandatory disclosure requirements in this area. Some items are rarely disclosed and some others are disclosed by almost all sampled companies. This category achieves the highest score (59.03%) with the first three sub-categories reporting scores above 60%. Table 8-2 shows that the actual voluntary disclosure of Greek listed companies relates mainly to corporate environment disclosures.

There are very few companies which score extreme values, either low or high (Table 8-3). In general, companies score between 40% and 90%, where 60%-70% is the most frequent scoring range. It seems that companies listed on the ASE have

established a common policy in many particular disclosures in this category which indicate a similar approach to voluntary disclosure. This is further analysed in the following sections. High scores in these disclosures indicate that Greek companies consider voluntary information which helps to explain the general outside and specific corporate environment where companies operate of high value. Although there are several potential media for this information, since the majority of these disclosures can hardly be regarded as proprietary (2.4.3.2), it seems that corporate management regards annual reports to be the right medium through which to communicate this information with outsiders.

Table 8-3: Category 1: Frequency Distribution among Companies

Frequency Distribution among Companies		
Disclosure Score	**No of Companies**	**Percentage**
90% < score ≤ 100%	1	1.15%
80% < score ≤ 90%	11	12.64%
70% < score ≤ 80%	16	18.39%
60% < score ≤ 70%	18	20.69%
50% < score ≤ 60%	14	16.09%
40% < score ≤ 50%	11	12.64%
30% < score ≤ 40%	7	8.05%
20% < score ≤ 30%	5	5.75%
10% < score ≤ 20%	1	1.15%
0 ≤ score ≤ 10%	2	2.30%
Total	87	100%

The specific outcomes of particular information areas, as reported by the four sub-categories belonging in this category, are analysed in detail in the following section.

8.4.1.1 General Information about the Economic Environment

This is the highest disclosed sub-category (68.10%) ranging from 51.72% for information about the influential activity of the state to 81.61% for specific factors influencing business (Appendix 8-I). Corporate management discloses information about the industry (75.86%) probably because it is a benchmark for the evaluation of corporate results and in turn the relative success of the management (Smith, 1976). Specific factors influencing business is the most frequently disclosed item (81.61%), probably because management wishes to explain the particular reasons against which the corporate performance should be evaluated. Companies may provide extensive disclosures in this particular area for at least two reasons. Either companies may consider this type of information to be of low cost, both production cost and

proprietary cost, because it consists of economic factors and financial indicators already in the public domain or because they perceive annual reports to be a suitable medium through which to communicate this information with various users.

8.4.1.2 General Corporate Information

General corporate information has a relatively high score (60.42%). There is an especially wide disclosure range (almost 75%) in this sub-category, ranging from 17.24% for organisational structure to 91.95% for discussion on last year's performance, which is the most common disclosure item overall. Despite the high levels of disclosure there are only two companies achieving 100% disclosure in this sub-category.

Management does not seem to pay much attention to disclosing organisational structure (17.24%), brief history of the company (22.99%) and description of marketing network (35.63%). The majority of companies disclosing organisational structure were construction companies, probably because they disclose this information in the listing prospectus and it is therefore less costly to disclose it in annual reports. Although a brief history of the company (item 5) could be considered to be an integral part of annual reports, it is disclosed by only 20 companies. That may be because companies perceive it to be irrelevant to the specific objectives of annual reports and of presumably low benefit, or it may be expected that this information is already known by the users of annual reports.

Although the majority of the companies provide some information about financial highlights (84.05%), products (79.31%) and major subsidiaries (82.09%), the depth of that is quite limited. Forward-looking information appears high (59.77%). However, that should be evaluated according to the definition of this item in the Greek context. Very few companies provided quantitative forward-looking data and the majority of companies provided broader statements in reference to specific events like managerial decisions, contracts, and future projects. Graphs and photos are disclosed at high levels (74.71%). However, it is worth observing that there were 22 companies which did not provide even one graph or photo. That may indicate the nature of the entire annual report.

8.4.1.3 Specific Corporate Information

The average disclosure score of this sub-category is high (63.29%). There is high variation in particular scores of disclosure items (e.g. 23.75% for productive capacity; 87.21% for information on acquisitions/expansion of programs). This sub-category is a further analysis of the second sub-category (General Corporate Information). The majority of the companies disclose some information in this area (see Appendix 8-II). There are only three companies that do not disclose any information while the considerable majority of the companies disclose five to eight items. Only nine companies achieve 90% of disclosure and only one 100%.

The most common items are: (i) information on acquisitions/expansion of programmes (87.21% of relevant cases) probably because management perceives it to be a positive sign for future growth and wishes to communicate that with outsiders and (ii) specific statements of strategy and objectives (86.21%) possibly because there are frequently some strategic decisions that management wishes to make known to shareholders, financial analysts or other users. Information on productive capacity is scarce compared with all other items within this sub-category, probably because it may be viewed as proprietary information by the management of some companies.

8.4.1.4 Information about Directors

This type of information, which consists of only three items, is the most poorly disclosed within the first category (30.27%). The disclosure of this type of information displayed a wide variation from 5.75% for personal characteristics of directors to 70.11% for position or office held by executive directors. Personal characteristics of directors is one of the lowest disclosed items overall. It seems that corporate management has chosen to maintain silence in annual reports of any information regarding itself. There are 20 companies that disclose no information at all, and also there is no single company achieving full disclosure in this sub-category. Remuneration is reported by only thirteen companies of the sample (14.94%).

8.4.2 Category 2 – Social Responsibility Information

Social responsibility disclosure is the lowest disclosed category in this study. It achieves only 16.05% and there is a particularly wide range among different items

within this category (almost 75%). The results indicate that Greek firms tend to be especially secretive in such disclosures which may be a consequence of the *sui generis* institutional characteristics or the underdevelopment of general issues related to corporate legitimacy. Notably, there are only four companies (4.6%) that report extensive information and devote wide sections in their annual reports for social responsibility disclosures. On the contrary, the considerable majority of the companies either do not report any information or the information is very poor (almost 77% of the sampled companies report levels lower than 29%).

It is particularly difficult to trace what the motivation of Greek companies is that provide social disclosures. It has been observed that some smaller companies in the same industry provide more extensive disclosures. Thus, explanation of this practice seems to be more difficult compared with the other two categories because it tends to be subject to a multi-motivational function. Social disclosure may be a reaction to user needs (Guthrie and Parker, 1990), economic or political motivations (Freedman and Stagliano, 1992). This issue is further discussed in chapter 10.

These results may be indicative of social reality in Greece since voluntary social disclosure is more likely to occur when widely shared social priorities exist in a particular environment (Freedman and Stagliano, 1992). This type of disclosure may be of great concern in the years following the period of this research (1997) owing to the increasing legislative developments of the European Union and the European Economic Area that require greater corporate social responsibility and accountability (Gray et al., 1996). However, further investigation is beyond the specific objectives of this thesis.

However, this category has some singular characteristics which make it different in many ways from others. The nature of disclosures, the corporate philosophy that underlines those disclosures and the relative popularity may be compared with other categories of disclosure. However, it should be highlighted that it is not easy to assess whether specific items of such information are applicable to companies

because some companies have not carried out any activities to be reported in the annual report. This has been discussed in 7.3.2.4.

It may be that some companies do not disclose this information for reasons different than feasibility or cost constraints but rather because they perceive that there is no benefit or the benefit is so low that it is not worth trying. Moreover, it may be the case that some companies do not disclose this information because there has never been any thought on this. That may be related to managerial attitude or sophistication about ethical issues.

Table 8-4: Category 2: Frequency Distribution among Companies

Frequency Distribution among Companies		
Disclosure Score	**No of Companies**	**Percentage**
90% < score ≤ 100%	0	0.00%
80% < score ≤ 90%	1	1.15%
70% < score ≤ 80%	3	3.45%
60% < score ≤ 70%	0	0.00%
50% < score ≤ 60%	5	5.75%
40% < score ≤ 50%	4	4.60%
30% < score ≤ 40%	3	3.45%
20% < score ≤ 30%	4	4.60%
10% < score ≤ 20%	11	12.64%
0 ≤ score ≤ 10%	56	64.37%
Total	87	100%

Many companies (33) do not disclose any information at all. Although the extent of disclosure is especially low in this category, it seems that listed companies have adopted identical reporting policies. It is observed that companies tend to report the same items and tend to be secretive about other similar ones. This trend explains the identical scores of many companies within this category. Notably there are 23 companies which have exactly the same score (6.67%) and similar disclosure behaviour. Relatively low scores for Greece are supported by Freedman and Stagliano (1992). Particular features of certain information themes, as captured by the sub-categories, and also individual information items are discussed in the following sections.

8.4.2.1 Employee Information

Employee related information appears to be the weakest point of voluntary disclosure for the case of Greece. A disclosure score of 11.67% indicates the poor reporting

practice for this type of information. Forty-nine (49) companies (51.72% of the sample) disclose no information at all and 18 companies (20.69% of the sample) report only one item. A small number of companies had special sections related to employee information. That may also be owing to the small size of the majority of the companies examined which may reveal relatively weak pressures from unions, or that information about employees may be communicated through mediums other than annual reports.

Greek companies in the current study appear to follow a trend of minimum employee disclosure, particularly in areas such as geographical distribution of employees (8.05%), categories of employees (6.90%), categories of employees trained (4.60%), identification of senior management and their functions (6.90%), amount spent in training (5.75%), data on accidents (4.60%) and safety measures (6.90%). Notably this area includes the items that are lowest disclosed overall (items 30 and 38). The most common item is policy on human resources (31.03%). Management may feel that they communicate to shareholders, employees, state and public demands, showing their ethically acceptable manner of management, by disclosing some general information of policy on human resources rather than reporting detailed information on employee related issues.

Overall results in this sub-category may point out that Greek companies have not developed advanced procedures of corporate legitimacy. Another possible explanation may be that companies feel that corporate management perceives that those issues are adequately addressed in media other than annual reports. That may further indicate that security, prospects of employment and other relevant information cannot be assessed based on annual reports either because they can be found elsewhere or because the market operates inefficiently in this area. Results are relatively low when compared with relevant evidence from other research studies. Meek and Gray (1989) report particularly extensive disclosures for German and French companies.

8.4.2.2 Social Policy

Social policy disclosures have a score of 36.67% with specific items to range from 12.64% (value added information) to 81.25% (information on community programmes). This score is better than expected, considering the nature of this type of disclosures, the Greek socio-economic environment and relative scores of other sub-categories. Additionally, this area of disclosures has always been entirely voluntary in Greece.

Although this area is of particular interest there are only two companies that provide substantial sets of information in their annual reports. These companies are the pioneers in this area. Value added information is presented either in graphical form or as a financial statement, with the first being more popular. Three companies presented only the value-added final amount. Environmental programmes where relevant, are disclosed in a qualitative form since quantitative expression is relatively infrequent (27.78%). Notably, 35 of the annual reports examined by this study contained some information about the quality or safety of products/services (Appendix 8-I).

It appears that '*social consciousness*' is an attitude of only some listed companies in terms of communicating social and environmental activities to the public. Although these activities are a common practice in a limited group of companies, the relative high score of this category, regarding its nature and also the particular institutional environment of Greece, leads to the conclusion that companies that undertake substantial social and environmental activities report them as well. However, an inherent limitation of measuring social policy disclosures in the Greek milieu is the lack of sufficient evidence about the companies that engage in these kinds of corporate activities. However, there must be always the possibility that some companies, although they are in a position to disclose social information, they do not do so, not only for reasons of cost but possibly because they perceive no benefits from disclosing this information. Considering the general underdevelopment of the broader financial system on ethical issues it is also possible that many companies have never seriously considered this issue.

8.4.3 Category 3 – Financial Information

The category of financial information category measures financial quantitative matters in order to improve the overall understanding of the factors that play some role in the performance and future growth of the company. In this category all listed companies provided some information exceeding that required by the regulations, on an average level of 30.91%. There is a considerable variation among those disclosure items reported by the sampled firms. Moreover, this category has a wider range indicating that some of the items included are disclosed by the minimum (4.60%) or by the majority (83.78%). There is limited information provided in this category and also the quality of disclosure was of low standard for the majority of annual reports. There are only eight companies achieving scores higher than 50%. The most common level of disclosure is between 30% and 40% which indicates that corporate philosophy is focused on disclosing some information that is regarded as easily communicated by the annual reports, but not in great detail (Table 8-5).

Table 8-5 Category 3: Frequency Distribution among Companies

Frequency Distribution among Companies		
Disclosure Score	**No of Companies**	**Percentage**
90% < score ≤ 100%	0	0.00%
80% < score ≤ 90%	0	0.00%
70% < score ≤ 80%	2	2.30%
60% < score ≤ 70%	5	5.75%
50% < score ≤ 60%	1	1.15%
40% < score ≤ 50%	16	18.39%
30% < score ≤ 40%	21	24.14%
20% < score ≤ 30%	15	17.24%
10% < score ≤ 20%	18	20.69%
0 ≤ score ≤ 10%	9	10.34%
Total	87	100%

That may be either because quantitative financial disclosure is considered as proprietory information by the management or because corporate management wish to communicate detailed disclosures through other channels probably with privileged users (in the case of Greece that takes the form of statements prepared for banks, institutional investors etc., or interviews). Therefore, the nature of this category in reference to the institutional characteristics of Greece, the pertinent perceptions over costs and benefits, and also according to the established practice may provide explanatory grounds of the extent of these disclosures. This will be further analysed

by interview research (chapter 10). A more comprehensive view of the relative patterns of this category can be obtained by the analysis of the four financial information sub-categories.

8.4.3.1 Segmental Information

The average disclosure of segmental information was 32.60%. This block of disclosure ranges from 13.95% for competitor analysis to 50.00% for disaggregated geographical sales. This kind of information is regarded as particularly relevant for the assessment of risk and returns. However, it is associated with high costs (Gray, 1978; and Roberts, 1989) which are mainly competitive disadvantage costs (Edwards and Smith, 1996).

Segment information tended to be scattered around the annual report (mainly in the management report), consistent with other studies (e.g. Meek and Gray, 1989). The two most popular items within this category are disaggregated geographical sales (50% - item 47) and disaggregated line of business sales (39.08% - item 49) which are information in excess of the required geographical and line of business sales[50]. No company segmented data on capital investment or segment profits or segment cash flows (by line of business or geographic region).

The majority of companies report either no information at all (23 companies) or only one item (21 companies). Companies are quite secretive in the way they view their competitors and they disclose minimum (13.95%) and very broad information. Market share analysis is mainly expressed by a statement in the management report or in a graphical form by 26 companies. Notably, geographical production and line of business production are expressed by similar scores of disclosure (31.58% and 30.26% respectively).

8.4.3.2 Financial Ratios

The highest disclosed type of information within the third category (39.08%) is financial ratios. The highest reported item is profitability ratios (48.28%) and EPS the lowest disclosed item (18.39%). Reasons that may justify the relative frequency

[50] Greek firms face the requirements of EU Fourth Directive as it has been incorporated in 2190/20.

of this information group may be the low production and proprietary costs since these items can be easily computed from the published annual accounts. Moreover, recommendations from the General Accounting Plan and many academics and consultants (Sakellis, 1990) over the disclosure of those items may be another explanatory factor.

However, an average score of 39.08% cannot be considered a satisfactory level having considered the nature of these items and also their low costs of disclosure. Moreover, there are 25 companies which report not even one ratio and 15 that disclose only one (Appendix 8-II). Since ratios, when included, need some further interpretation by the management, that may be a reason for the relatively low disclosure of this sub-category.

8.4.3.3 Financial Review

The average disclosure of this type of information is 31.40%. Disclosures range from 11.49% for expenditure on specific marketing projects to 78.16% for qualitative comments on profitability. The majority of these disclosures (all except cash flows) are disaggregated information of required disclosures. Companies are willing to disclose one (36.78%), two (24.14%) or even three items (20.69%). There is only one item disclosed at high levels though the disclosure of other items is average (items 60 and 62) or even poor (items 59, 61 and 63). Management may perceive that they have to explain the reasons for high, stable or even low and negative profitability (78.16%) but are unwilling to disclose further insights. Particularly poor was the disclosure of cash flows (12.64%). Cash flows were provided as full statements, abridged statements or simply cash-flow amounts. With regard to the relative importance of those disclosures (e.g. Epstein and Pava, 1992) it seems from this finding that users cannot rely on the free will of companies to receive this information. Thus, in order to increase the quality of this type of information, regulation may be the only option.

8.4.3.4 Market Related Information

This block of information is the lowest disclosed (23.60%) within financial information. There is only one company disclosing all information items though there are 15 companies disclosing no information at all (Appendix 8-II). Most of the

companies disclose either one item (35 companies) or two (17 companies) items. The most common voluntary item is general information about new issues (83.78%) which is one of most common items overall. However, type of shareholders and significant shareholders are the lowest disclosed items overall (4.60%) reported by only four companies.

Although market related information is regarded as being particularly important (most of these items are mandatory in developed capital markets, e.g. UK and US), it is not disclosed at high levels by listed companies. Some explanation may lie in the fact that this type of information is already out of date. Moreover, this kind of information is disclosed by many sources in Greece, and can also be found in the data of the ASE. However, information which is less available to the public (items 68, 69 and 70 in the disclosure list) are the lowest disclosed, as mentioned before, which tends to strengthen information asymmetry.

8.5 Summary and Conclusions

The purpose of this chapter was to describe, analyse and evaluate the results of the current study on the measurement of voluntary disclosure reported by Greek companies listed on the ASE for 1997. All companies included in this study exceeded the mandatory requirements and disclosed voluntarily a wide range of information which varies significantly according to different categories of information and also among the listed companies.

Overall voluntary disclosure is poor (37.83%) particularly in some specific areas. There is relatively little information of a more quantified nature; there is also clearly a need for more comparable information across companies and industries. Greek companies provide the most extensive disclosures in corporate environment (59.03%) which is richer by far when compared with the other categories of disclosures. That seems to indicate the choice of listed companies to communicate general and specific information that affects business to outsiders using the annual report. Although corporate management tends to be willing to provide such type of information, it is more secretive in reporting about itself.

Social responsibility disclosures were the least reported. There is little apparent effort by listed Greek companies to exceed mandatory requirements for employee information. That may be an indication of the way corporate legitimacy to employees is perceived by listed companies. Companies that engage in social policy operations tend to report them in annual reports. It may be that companies either establish this common practice in order to make known their ethical stance towards community or they regard communication of those operations as being necessary for a positive net effect of these operations.

The breadth of the voluntary disclosures made over a wide range of financial related information may indicate the relative importance of this category. There are some specific items that companies are willing to report. However, financial information which, according both to theory and relevant empirical studies, is associated with high costs (mainly costs of competitive disadvantage), was frequently not disclosed. That may suggest that Greek companies balance the potential costs and benefits of disclosures before disclosing these in annual reports. Therefore, an increase of quality in these disclosures may be unlikely to occur without imposition of further requirements by the Greek State or the ASE. These results may indicate scope for additional disclosure either by the mechanisms of the free market system, as it is developed in the Greek capital market by the rapid expansion of the stock exchange, or by imposition of further regulation. These issues are discussed further in 11.4.2.

This chapter also intended to raise some issues in specific disclosure trends that may be especially important as they provide some insights into the relative characteristics of particular information areas. Some of these issues are further analysed in the next chapter by evaluating associations between corporate characteristics and voluntary disclosure. Discussion provided in this chapter is applied in the interpretation of these results.

Although many issues of voluntary disclosure may be addressed and evaluated, many questions, owing to their nature, remain open. For example, the question whether

voluntary disclosure keeps pace with changes in the business cannot be directly answered based on the results presented here. This issue is considered to be especially valuable since financial information operates as a gatekeeper in the capital market and impacts on efficiency of the system. Issues related to costs and benefits, credibility, use and behaviour of voluntary disclosure are discussed in the interview chapter (chapter 10).

CHAPTER 9

9. Univariate and Multivariate Analysis

9.1 Introduction

The purpose of this chapter is to test hypotheses of the relative associations between firm characteristics and extent of voluntary disclosure (chapter 6), addressing the second empirical question (1.4). The chapter is organised as follows: section 9.2 reports on the results of univariate analysis. In section 9.3 the design of the multiple regression analysis is laid out. Section 9.4 presents the results of the regression analysis as evidenced by the overall and categories of voluntary disclosure. Interpretation follows. Section 9.5 reports on the results of the regression analysis on the categories of type of report. Section 9.6 presents the main results of the relative measures. Finally, the main conclusions of this chapter are summarised in 9.7.

9.2 Univariate Analysis

This section presents the results of univariate non-parametric analysis. Results are presented by reference to overall voluntary disclosure and also according to separate categories of voluntary disclosures.

9.2.1 Structure-Related Variables

Table 9-1 shows that all measures of size are significantly correlated (1%) with overall voluntary disclosure and the three categories separately. That suggests that company size may be particularly influential on voluntary information for companies listed on the ASE. Market capitalisation tends to be the variable with the strongest association. Number of employees is the size variable with the weakest association, although significant, and shows the strongest association in the social responsibility disclosures.

Table 9-1: Correlations between Structure-Related Variables and Voluntary Disclosure

Measures	Overall Scores[51]	Corporate Environment	Social Responsibility	Financial
Total Assets (1-tailed)	.344** (.000)	.341** (.000)	.185** (.009)	.289** (.000)
Turnover (1-tailed)	.344** (.000)	.288** (.000)	.159* (.022)	.330** (.000)
No of Employees (1-tailed)	.217** (.002)	.185** (.006)	.236** (.001)	.167* (.012)
Capitalisation (1-tailed)	.394** (.000)	.306** (.000)	.231** (.002)	.366** (.000)
Gearing (2-tailed)	.088 (.247)	-.133 (.082)	-.018 (.826)	.059 (.438)

Voluntary disclosure is not significantly associated with gearing. Therefore, results cannot reject the null hypothesis that there is no association between gearing and voluntary disclosure.

9.2.2 Performance-Related Variables

Current year and relative change measures of performance-related variables, defined in chapter 7, are tested and reported here (Table 9-2).

Table 9-2: Correlations between Performance-Related Variables and Voluntary Disclosure

Measures		Overall Scores	Corporate Environment	Social Responsibility	Financial
Profitability (2-tailed)	Current Year	.174* (.017)	.101 (.171)	.073 (.355)	.203** (.006)
	Relative Change	-.054 (.457)	-.067 (.365)	.002 (.985)	-.131 (.085)
Liquidity (2-tailed)	Current Year	.093 (.201)	.023 (.755)	.051 (.520)	.187* (.011)
	Relative Change	.091 (.214)	.118 (.109)	.051 (.515)	.110 (.133)

While the results of current year profitability suggest some weak association, the results of the relative change measure show no association. There is a statistically significant association between the overall scores and the current year measure of profitability at the 5% level. For the three categories (Table 9-2) it seems that

[51] In continuous variables the upper number presents the correlation coefficient although the lower presents the level of significance. Kendall's tau test has been used for reasons explained in (7.4.2.1). Two asterisks (**) represents correlations at .01 level and one asterisk represents correlations at .05 level.

profitability is not associated either with corporate environment or social responsibility information. However, there is a significant association (at 1%) with financial information. In contrast, the relative change measure is not associated with voluntary disclosure in overall or separate categories. It seems that liquidity is not associated with voluntary disclosure. There is only some weak association with financial information as it is measured by current year liquidity.

9.2.3 Market-Related Variables

There is no association between the current year measure of share marketability and voluntary disclosure either on overall scores or on information specific categories (Table 9-3). The relative year measure provides a significant association at 1% both for the overall index and also for corporate environment and social responsibility information.

Table 9-3: Correlations between Continuous Market-Related Variables and Voluntary Disclosure

Measures		Overall Scores	Corporate Environment	Social Responsibility	Financial
Marketability (2-tailed)	Current Year	.132 (.070)	.141 (.056)	.030 (.703)	.109 (.140)
	Relative Change	.245** (.001)	.261** (.000)	.244** (.002)	.122 (.097)
Volatility (2-tailed)	Current Year	-.108 (.139)	-.055 (.454)	-.174* (.016)	-.084 (.252)
	Relative Change	.276** (.000)	.189* (.011)	.188* (.017)	.260** (.000)
Share Yield (2-tailed)	Current Year	.169* (.019)	.111 (.132)	.030 (.703)	.165* (.021)
	Relative Change	.153* (.036)	.114 (.124)	.068 (.387)	.080 (.276)

Table 9-3 shows that current year share volatility is not associated with overall voluntary disclosure. However, the relative measure of share volatility shows a significant association at 1% level. Significance holds also for corporate environment and social responsibility at the 1% level and at 5% financial information. Therefore, although more volatile companies in the current year do not adopt differential voluntary disclosure policies, companies whose levels of volatility increased over the previous year tend to provide enhanced levels of voluntary disclosure.

Table 9-3 shows a positive association between overall scores of voluntary disclosure and share yield. However, more detailed examination of the data shows that the association between levels of voluntary disclosure and share yield is spurious. That is because the relation of share yield with measures of size (particularly market capitalisation) and profitability tend to influence the association between share yield and levels of disclosure[52]. In order to remove the influence of measures of size and profitability a partial correlation test is carried out, controlling for size and profitability. A principal component factor for measures of size implied negative associations (Table 9-4).

Table 9-4: Partial Correlation between Share Yield and Voluntary Disclosure

Measure	Overall Scores	Corporate Environment	Social Responsibility	Financial
Current Year (2-tailed)	-.217* (.043)	-.154 (.159)	-.141 (.199)	-.214* (.045)

Table 9-5 shows industrial product companies report more than the other two categories. A Kruskal-Wallis test indicates that industry is a significant factor to explain variations of voluntary disclosure.

Moreover, Table 9-5 suggests that type of report is a particularly significant factor, at 1% level for overall voluntary information and also for corporate environment and social responsibility information (Table 9-5). Listing status is found to be a significantly associated variable for overall and specific categories of voluntary disclosure (Table 9-5). Companies listed on the main market report enhanced information in all categories compared with companies listed on the parallel market.

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[52] There seem to exist different associations between clusters of companies. While clusters of extreme values of market capitalisation, both positive and negative, have a positive association between share yield and voluntary disclosure that does not exist for the clusters of middle capitalisation, which is the biggest part of the sample. Moreover, different patterns are derived when groups are separated according to size and profitability.

Table 9-5: Associations between Categorical Market Related Variables and Voluntary Disclosure

Measure		Overall Scores	Corporate Environment	Social Responsibility	Financial
Industry	Services (mean-rank)	29.83	30.57	33.27	40.70
	Consumer Product (mean-rank)	44.22	49.59	41.59	40.20
	Industrial Product (mean-rank)	49.84	43.84	51.14	49.43
	Significance	(.037)	(.048)	(.045)	(.258)
Type of Report	Greek only Report (mean-rank)	32.00	20.37	32.08	39.65
	Dual Language Reporting (mean-rank)	57.46	59.29	57.38	48.88
	Significance	(.000)	(.000)	(.000)	(.089)
Listing Status	Parallel Market (mean-rank)	23.71	28.63	30.13	24.71
	Main Market (mean-rank)	47.25	46.46	46.22	47.09
	Significance	(.003)	(.023)	(.033)	(.004)

9.3 Designing Multiple Regression Analysis

This section describes the basic steps of developing the regression models and highlights issues relating to their reliability. As explained in 7.5.2.2 the robustness of econometric models depends on: (i) the economic criterion, (ii) statistical criterion and (iii) the econometric criterion which, regarding the specific approach of this study, takes the form of not violating the conditions undertaken (9.3.1) for the regression model (9.3.2), and in particular, the conditions of multicollinearity (9.3.3) and normal distribution (9.3.4). These issues are discussed in the following sections.

9.3.1 Conditions

For this study the conditions are as follows: (a) the regression model is linear in the parameters and in the variables, (b) independent variables (corporate characteristics) are fixed and nonstochastic[53], (c) zero mean value of disturbance u_i[54], (d) homoscedasticity or equal variance of u_i, (e) the number of observations must be greater than the number of parameters to be estimated, (f) variability in values of

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[53] That means that this regression analysis is a *conditional regression analysis,* conditional on the given values of corporate characteristics.

[54] However, this assumption of zero mean value as of normal distribution is taken for granted (see for e.g. Griffiths et al., 1993, p. 76; Owusu-Ansah, 1998).

independent variables, (g) the regression model is correctly specified, (h) there is no substantial multicollinearity between the independent variables and (i) there is normal distribution.

The reliability of any regression analysis relies on whether the basic conditions are violated or not (Maddala, 1989). Therefore, the conditions of this study are further discussed. The high values of F-test and also low values of eigenvalues indicate the near-linear dependencies among the data (condition a). These two rules of thumb are proposed by Cooke (1998) and Gujarati (1995) respectively. Condition (b) has been met. Condition (d) is met using rank regression (7.5.2.2) (the Levene's test also confirmed condition d).

Condition (e) requires the number of observations (sample) to be greater than the number of independent variables. Although there is no consensus about the practical form taken by this condition, a basic rule of thumb stated by many econometricians (e.g. Hebden, 1981) is to have at least five observations per each regressor. In relation to the data this condition is met.

Condition (f) has been met (see chapter 8). Condition (g) may be of particular complication. That is because it refers to a multidimensional set of issues such as the functional form and the '*correct*' number of variables[55]. These issues are explained in the selection of the regression equation (see 9.3.5). Finally, the conditions about multicollinearity (h) and normal distribution (i) are outlined in 9.3.3 and 9.3.4.

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[55] While the former has been discussed, the latter is less clear particularly in an area with fuzzy theoretical frameworks. It is often stated in relevant texts (e.g. Gujarati, 1995, p.68) that building an econometric model, is more often an art rather than a science. That is because the '*correct*' or '*true*' set of variables is rarely specified precisely by theories. Therefore, some judgement by the researcher is often used in practice. Thus, some trial and error is involved. However, one should avoid what is known as '*data mining*', which is trying every possible model with the hope that at least one will fit the data well (ibid.).

9.3.2 The Regression Model

The regression model has the following form:

VDI_{ij} = β_o + β_1 Size $_j$ (TA, TU, EM, CA) + β_2 Gearing $_j$ + β_3 Profitability $_j$ + β_4 Liquidity $_j$ + β_5 Share Marketability $_j$ + β_6 Consumer Product $_j$ + β_7 Industrial Product $_j$ + β_8 Share Volatility $_j$ + β_9 Share Yield $_j$ + β_{10} Type of Report $_j$ + β_{11} Listing Status $_j$ + u_{ij}

Where:

VDI_{ij} = the Voluntary Disclosure Index (VDI) scores for sampled companies

(i = number of indices according to overall and three categories of disclosure 1,2,3,4 and, j = number of company 1,2,3,..., 87),

TA= Total Assets,

TU= Turnover,

EM= Number of Employees,

CA= Market Capitalisation,

β_o = the intercept,

β_j = the coefficients of the independent variables,

u_{ij} = the disturbance term.

In this study four regression equations are developed. These have the same independent variables but different dependent variables, namely overall, corporate environment, social responsibility and financial voluntary disclosure. The intercept β_o is included since it is an important ingredient of the equation as a whole. Koutsoyiannis (1977, p.65) states that only when theory postulates relationships which have a zero constant intercept, that is, they pass through the origin, should this be omitted. The disturbance u_i or error term is a random (stochastic) variable and is included in this model to represent all those factors that affect voluntary disclosure in the Greek milieu but are not taken explicitly into account in the current study, because of a set of reasons discussed in 9.7.

9.3.3 Multicollinearity

Multicollinearity is examined by three tests (7.5.2.3): i) a matrix of bivariate correlations, ii) Variance Inflation Factor (VIF) iii) eigenvalues and condition index. The results of these rules of thumb as applied in the current data, are presented as follows:

For the existing data, the correlation between variables suggests a problem only between size measures (Appendix 9 - I) which is common in other empirical studies (e.g. Cooke, 1989a; Suwaidan, 1997). All other variables are correlated at less than .6 and therefore, according to the criterion taken (7.5.2.3), do not present a problem.

Thus, it was decided to run a separate regression test (combination) for each measure of size. This approach has been followed by many studies (ibid.). The results of VIF and eigenvalues and condition index point out excessive values for measures of size that suggest severe multicollinearity for those. These confirm the results of the correlation matrix. Therefore, one measure of size is entered in each equation (combination).

9.3.4 Normal Distribution

The assumption of normality is argued to be one of the most important assumptions (e.g. Brown, 1991). The consequences of non-normal distributions have been emphasised by many statisticians (e.g. Maddala, 1989; Gujarati, 1995). The investigation of normality is attempted as follows.

At first scatterplots, boxplots, histograms (including each continuous variable and disclosure scores) and stem-and-leaf plots are undertaken to examine the distribution pattern. Second, the Kolmogorov-Smirnov test (Lilliefors significance) is applied. Considering the outcomes, the independent variables (7.4), and most of the disclosure indices they do not fulfil the assumption of normality.

Table 9-6: Descriptive Statistics on Untransformed and Transformed Overall Disclosure Index

Descriptive Statistics			
	Scores	Normal Scores	Percentile Scores
Mean	.3757	.0000132	.5000
St. Deviation	.1577	.9615	.2937
Minimum	.02	-2.278	.00
Maximum	.76	2.278	1.00
Median	.3485	.0000	.5000
Kolmogorov-Smirnov Lilliefors Significance	170	.200*	.200*

* This is the lower bound of the true significance

Transformations are applied to normal scores and percentile ranks for reasons explained in 7.5.2.2. Transformed variables meet the assumption of normality. The same exists for residuals. Similar transformations are carried out for all dependent and independent variables. The statistical criterion is the minimisation of the MSE, as explained in 7.5.2.2.

9.3.5 Specifying Maximum Regressions

The specification of regression models is not a standardised procedure. Wallace and Naser (1995, footnote 18) argue that it is more appropriate to begin analysis with variables proposed to be predictors of disclosure indices than to adopt a statistical search strategy such as stepwise regression, which is popular in this area of research (e.g. Cooke, 1989a; Malone et al., 1993; Tauringana, 1997). However, stepwise regression[56] has been criticised by many econometricians as being rather dubious (e.g. Brown, 1991, p.334). It is stated that stepwise regression may create specification problems. Moreover, multicollinearity may be another problem since whether a variable is included or excluded in a model depends on its place in the selection queue (ibid.). Wallace and Naser (1995) point out that stepwise regression could lead to an erroneous conclusion that a variable excluded because of its strong relationship with another is unimportant, or to an overstatement of the variables which are included (Hamilton, 1992, p.83-84 as cited in Wallace and Naser, 1995).

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[56] This technique allows statistical programmes to search through a list of potential explanatory variables to come up with the model specification that maximises R^2. In the first '*step*', the computer finds the single explanatory variable that results in the highest R^2. In the next step, the explanatory variable that adds the next highest increment to R^2 is added. The search continues until successive variables do not increase by the amount pre-specified (Brown, 1991, p.333).

Moreover, the procedure may also exclude one or more variables with offsetting effects. That is where two variables are positively (negatively) related but their effects on the depended variable have opposite (similar) signs. Furthermore, while Cooley and Lohnes (1971, p.57 as cited in McIntyre et al., 1983) argue that stepwise regression is seldom appropriate in behavioural research, McIntyre et al. (1983) provide evidence for substantial biases related to this approach. In the current study both approaches are applied (Table 9-7).

Table 9-7: Regression Models[57]

Variables	Stepwise Regression	Regression
Overall Index	**P. Ranks**	**P. Ranks**
Total Assets	NE	NE
Turnover	NE	NE
Employees	NE	NE
Capitalisation	S	S
Gearing	NI	NS
Profitability	NI	NS
Liquidity	NI	NS
Marketability	NI	NS
Industry Consumer Product	S	S
Industry Industrial Product	S	S
Volatility	NI	NS
Share Yield	S	S
English Report	S	S
Listing Status	S	S
Constant	NS	NS
$_{adj}R^2$	.499	.509
MSE	.0426	.0418

NE = Not Entered, NI = Not Included in the equation,
S = Significant, NS = Not Significant

However, the discussion of the results is not based on stepwise regression. That is basically for two reasons: first, for the aforementioned theoretical considerations that raise doubts about the robustness of stepwise regression; second, for the statistical criterion of this study (MSE) since stepwise regression resulting higher MSE (see Table 9-7). Results do not differ between the two approaches. Results on disclosure

[57] The two horizontal numbers for each independent variable represent the coefficient and the level of significance.

categories tend to be similar. Thus, the results of the stepwise regression are not reported for reasons of economy of space. Therefore, regression results are reported and discussed according to the full model as analysed in 7.5.2.2. and 9.3. Material issues pointed out in this section will be further examined and discussed based on the nature of the data.

9.4 Regression Models Including Current Year Performance Measures

This section presents the results of the models incorporating current year measures. They are presented according to overall and categories of discosure. Discussion and conclusions are presented at the end of each section.

9.4.1 Overall Index

Four regressions are run (combinations), each one including one measure of size, to examine whether variation in the levels of voluntary disclosure can be explained by the proposed corporate characteristics. The F-significance (.000 for all regression models) shows that the null hypothesis can be rejected for all four regression models since the proposed corporate characteristics explain a significant part of variation in voluntary disclosure. Models incorporating percentile ranks tend to report significantly lower MSE and therefore are chosen. Models incorporating normal scores tend to give similar findings. Considering the four regression models, transformed by percentile ranks[58], it is evident that all four models do not differ materially.

The fourth combination reports the lowest MSE chosen. This combination incorporates market capitalisation as the size measure and reports the highest ${}_{adj}R^2$ to be 50.9%. This means that 50.9% of the variation in voluntary disclosure practice is explained by the proposed corporate characteristics. A summary of the results of this model is reported in Table 9-8. The null hypotheses H_{01}, H_{09}, and H_{010} are rejected at the 1% significance level while H_{06} and H_{08} are rejected at the 5% significance level.

[58] From now on, regression models refer to regressions transformed by percentile ranks.

Table 9-8 Results of Full Model for Overall Scores

Combination 4				
Multiple R	.757	**MSE**		.0418
R^2	.572	**F**		9.008
$_{adj}R^2$	.509	**F-significance**		.000
Std. Error	.204			
Variables in the Model				
Variable	**β**	**Beta**	**t-value**	**t-sig.**
Capitalisation	.447	.449	3.993	.000
Gearing	.018	.018	.189	.851
Profitability	.095	.095	.851	.398
Liquidity	-.134	-.133	-1.336	.186
Marketability	.115	.116	1.258	.212
Consumer Pr	.121	.207	1.793	.077
Industrial Pr	.158	.268	2.121	.037
Volatility	-.105	-.105	-1.138	.259
Share Yield	-.227	-.227	-2.078	.041
Type of Report	.230	.396	4.892	.000
Listing Status	.252	.301	3.553	.001
(Constant)	-.045		-.355	.724

In order to assess the relative weight of associations, β coefficients cannot be relied upon since the independent variables are measured at different units (independent variables are measured at different scales; e.g. categorical and continuous variables). A common way of assessing the relative importance of the independent variables in a regression model is by estimating BETA weights which are the '*coefficients of the independent variables when all variables are expressed in standardised Z-scores form*' (Norusis, 1988, p.167).

When estimating BETA weights (Table 9-8), it seems that the highest weighted variable is the corporate size, as measured by market capitalisation (a change in one standard deviation of corporate size implies an increase of .447 standard deviation in the voluntary index). Type of report is the second highest weighted variable followed by listing status, industrial product, share yield and consumer product. Thus, those companies that are larger in size, have a dual language reporting, are listed on the main market, belong in industrial or consumer product industries and have lower share yields disclose enhanced levels of voluntary disclosure.

Multivariate and univariate results, when compared, are not materially different. Size, type of report, listing status, industry factor and share yield are supported by the

univariate and mulivariate results. Profitability, which has some weak significance in univariate analysis, is not found to be significant by multivariate analysis. A summary of these associations between research hypotheses and both univariate and multivariate results are presented in Table 9-9.

Table 9-9: Overall Index: Univariate and Multivariate Results

Research Hypotheses	Significance Supported		Sign	Sign Supported	
	Univariate	Multivariate		Univariate	Multivariate
Corporate Size	supported	supported	+	supported	supported
Gearing	not supported	not supported	±	not significant	not significant
Profitability	supported	not supported	±	supported	not significant
Liquidity	not supported	not supported	±	not significant	not significant
Marketability	not supported	not supported	±	not significant	not significant
Industry	supported	supported	±	supported	supported
Volatility	not supported	not supported	±	not significant	not significant
Share Yield	supported	supported	±	supported	supported
Type of Report	supported	supported	±	supported	supported
Listing Status	supported	supported	+	supported	supported

9.4.2 Interpretation of Overall Index Results

The results for overall disclosure index indicate that the factors that are associated significantly with voluntary disclosure in the case of the ASE are the following: corporate size, type of report, listing status, industry factor, and share yield. On the contrary, gearing, profitability, liquidity, share marketability and share volatility provided no evidence for association.

9.4.2.1 Corporate Size

Corporate size, measured by market capitalisation, is the most powerful explanatory variable. Size has been found to be positively significant with disclosure levels in other emerging capital markets (e.g. Wallace, 1987; Hossain et al., 1994) though hard to interpret. The significance here is consistent with the rationale of the agency model and political costs. Moreover, large companies may disclose more due to lower cost factors. Lower information costs (economies of scale), competitive disadvantage, opportunity costs for large companies and the normal production of this information for internal reasons may justify this positive association.

Size is a function of growth and as such, results in a greater need for external capital and consequently a greater need for supplying more information. Large Greek companies have a more active orientation to capital markets in order to reduce the

relative risk and the cost of capital, which makes them more sensitive to users' needs (analysts, customers, suppliers). It may also be the case that although all companies as individuals have a responsibility to society, the economic and social importance and the impact of operations of larger companies is relatively higher. Therefore, these companies may feel their legitimacy role more keenly and inform the users better.

Statistics do not deal with causation. Moreover, a quantitative approach cannot conclude which of the suggested reasons leads to size being the most significant factor. However, the family-owned nature of a considerable number of the listed companies and also the nature of corporate legislation, suggest that agency pressures are less severe in the case of Greece and, in turn, in accounting disclosure matters. Furthermore, although the economic and accounting environments of Greece have been substantially politicised, there has been no published case of government intervention in larger companies in such terms as imposing higher taxes or price controls or additional disclosures. The lack of a watchdog committee (equivalent to the Financial Reporting Review Panel in UK or the Securities Exchange Commission in the US) to examine annual accounts reduces even further the possibility of political attacks. Therefore, although it may be a combination of all factors mentioned, it may be more relevant to relate the significance of size to costs factors and also to the market orientation and sensitivity of larger companies to users' needs.

9.4.2.2 Type of Report

Companies providing dual language reporting provide more information in their Greek reports compared with companies reporting only in Greek. That may be related to the strategic orientation of these companies. These companies have a posture to international capital markets, have material foreign operations and important foreign shareholders which may be a factor influencing reporting issues in Greek. Management forms reporting policies in anticipation that Greek reports will be translated into English, which influences relevant decisions. Thus, the significance of this variable could be viewed in relation to competition with foreign companies. Moreover, Greek companies may copy foreign reporting practices. This variable could also suggest that the foreign orientation of companies or the existence of

foreign shareholders makes domestic users better off in terms of provision of information. Moreover, the English language report may represent a signal to the market about the relative prestige of the company or the kudos of the management since directors tend to react more actively to the recommendations of the ASE for adequately informing foreign shareholders. Provision of an English language report may also reflect the corporate strategic posture and attitudes and/or attempts of senior executives to increase the image or reputation of the company. In the light of the regression analysis results for this factor are further analysed in 9.5.

9.4.2.3 Listing Status

Listing status is found to be one of the most significant factors when explaining voluntary disclosure. Companies listed on the main market disclose significantly higher levels of voluntary disclosure. Companies listed on the main market may have different objectives in raising capital. Therefore, this may be a driving factor for enhanced voluntary disclosure. Thus, the increased sensitivity of companies listed on the main market may reflect the increased overall market pressures. It may also be associated with the fact that the rapid expansion of the ASE and the relative increased interest of companies to have a corporate listing[59] has increased the competition between the listed companies. Furthermore, being listed on the more prestigious main market may be a signal to the market about the relative strength and reliability of the listed company. That may also provide some extra publicity which may encourage brand recognition and customer loyalty, which is consistent with Roberts et al. (1998, p.650). That may have some further implications for companies listed on the parallel market and wishing to achieve a main market listing to be particularly sensitive in information issues[60].

9.4.2.4 Industry

Just as in other studies (e.g. Cooke, 1989a; Meek et al. 1995), industry was found to be significant. Since there is no definite theory to expect one industry to outperform any other in disclosure (Wallace and Naser, 1995), the current result for the case of

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[59] That has been evidenced by the rapid increase in the number of applications for corporate listings submitted to the Capital Markets Commission (C.M.C.).

[60] That has been evidenced from companies that do not belong in this sample considering the criteria undertaken. However it has been observed that companies achieving a main market listing provided especially satisfactory annual reports (e.g. Mytilieos S.A.).

Greece is viewed under a combination of theoretical propositions and domestic related characteristics. The three industries developed have different fundamental characteristics (risks, rates of growth, profit opportunities, social responsibility, specific corporate culture within the industry for historical reasons) and different proprietary costs which may influence voluntary disclosure practices. That is theoretically supported by Dye and Sridhar (1995) who predict additional disclosures in line with industry-specific characteristics. Companies tended to provide enhanced levels of voluntary information, particularly in industries with strong competition, probably because that has been another area in which companies competed to each other (e.g. cement companies). Although stronger competition could have implied fewer disclosures since proprietary costs have become more severe (Verrecchia, 1983), that was not the case here probably because voluntary disclosures were directed in less costly areas. This finding is consistent with those of Darrough and Stoughton (1990).

Furthermore, it may also be the case that companies in the same industry copy the disclosure policy of the dominant company. That is particularly true for the Greek case in certain industries (e.g. consumer product industry, particularly the food-spirits sector). This '*follow the leader*' effect has been specified in other studies as well (e.g. Belkaoui and Kahl, 1978; Suwaidan, 1997).

Services appear to be more secretive, which has been evidenced in other studies (e.g. Abd-Elsalam, 1999). It has been argued that disclosure is analogous to advertising (Spero, 1979; Wallace, 1987) but voluntary disclosure tends to have a stronger aspect (Owusu-Ansah, 1997). Therefore consumer product companies which have public visibility as a result of their well-known products and their advertising campaigns, may continue this practice in annual reports. Industrial product companies have public visibility for different reasons. These are their sensitivity in the Greek economy and the nature of their business which may provide scope for additional disclosures in specific information themes.

The industry factor may affect the political vulnerability of a company (Watts and Zimmerman, 1986, p.239). That may take place, in the case of Greece, in industries that have potential to harm the environment (e.g. cement companies) since companies belonging within this group tend to provide extensive voluntary disclosures in order to mitigate public outcry or prevent further state intervention. The significance for the industry factor could also be viewed in the context of signalling theory in terms that outliers from the established corporate reporting practice within an industry may be perceived as '*bad news*' by the market (Inchausti, 1997).

9.4.2.5 Share Yield

Share yield was found to be significant with a negative coefficient. Although evidence on the association between voluntary disclosure and stock price performance is mixed a considerable number of prior studies (as reported by Lang and Lundholm, 1993) suggest that informativeness of voluntary disclosure (in terms of forecasts) tends to be related with 'bad news' rather than 'good news'. This result can be seen as being consistent with the predictions of signalling scenarios. It may be the case that Greek firms with less favourable share returns view their performance as 'bad news' and probably consider the disclosure of enhanced levels of voluntary disclosure as part of their accountability function to investors and other users of their annual reports. It has been shown in previous studies that the market response to 'bad news' is greater than that to 'good news' (Skinner, 1994). It may be the case that companies with less favourable share returns disclose more information to explain the reasons for negative performance and reassure the market about future growth. Companies may disclose information relevant to poor performance in order to reduce the risk of legal liability, severe devaluation of share capital and loss of reputation. Another possible explanation may lie in the stance of managers to inform the market adequately about bad performance in order to maintain their relative prestige with the investment community, in particular financial analysts.

9.4.2.6 Non-Significant Variables

Gearing, profitability, liquidity, marketability and volatility were found not to be significant. Non-significance for gearing can be explained by the relatively weak agency pressures and the relative importance of the banking sector in the case of

Greece where companies rely significantly on loan finance. Therefore, the non-significance of this factor may not necessarily mean that there are no pressures from creditors, or companies are indifferent about showing corporate accountability to creditors through voluntary disclosure, but rather that these functions are met through other media.

The non-significance of profitability may be because companies that experience high profitability feel that investors are already satisfied and management do not wish to establish a costly disclosure policy that may have to be maintained in the future even when performance may fall. Moreover, some very profitable companies may not wish to disclose too much information because they may attract public interest and also customers may perceive that product prices of that company are too high. This has been evidenced by Weetman and Collins (1996) for the case of the UK. It may also be the case that companies with high profitability may fear that extensive disclosure may attract competitors. The family-owned-and-managed nature of many of the listed companies may suggest that this variable may be a particular feature of the Greek capital market. Therefore, the needs for more information from a relatively more (or even less) profitable company may be different from those companies where investors do not directly take part in the management of listed companies.

The non-significance of liquidity may be associated with the relative difficulty of this variable to capture signalling effects. That is supported by the resulting non-significance of liquidity in the considerable majority of relevant studies (e.g. Wallace and Naser, 1995; Ownsu-Ansah, 1998). Moreover, the non-significance of this factor may be owing to the nature of this variable at the extreme values. Excessive values of liquidity are difficult to interpret because they could both imply negative indications (e.g. too liquid companies may be accused of not using corporate resources efficiently by directing them to investments). Companies with excessive liquidity and illiquid companies may wish to disclose more (or less) for similar reasons. That may challenge the signalling proposition that more liquid companies may disclose more information and perhaps also derive certain limitations in a rank-based research study. Alternatively, or probably additionally, the environmental

characteristics may have distorted the power of this variable. Significant liquidity problems faced by Greek companies during the 1980s and the early 1990s may have affected the relative significance of this factor.

Finally, marketability and volatility are found to be non-significant. That may be related to the nature of these variables since they are vulnerable to daily changes especially in thin markets. Thus, companies may not wish to begin a disclosure policy, which is costly, based on these factors that are not directly controlled by the company and may be easily altered. Moreover, relevant information is communicated to end-users by other disclosure media (e.g. financial newspapers, ASE publications).

9.4.3 Results of Voluntary Disclosure Categories

Results of categories are examined in order to specify the relative associations between independent variables and particular information categories of voluntary disclosure. These aim to provide further insights into the associations existing between corporate characteristics and voluntary disclosure. Results are reported according to three categories of voluntary disclosure. Four regression models are run each time (combinations), incorporating one measure of size. In all models, percentile ranks report lower MSE. Multivariate results are reported according to the level of significance and also according to their relative explanatory power to each regression model.

9.4.3.1 Corporate Environment Information (Category 1)

All four regression models are significant (F = .000) and therefore the null hypothesis can be rejected. The first model, incorporating total assets, provides the lowest MSE (.043) and therefore it is chosen for corporate environment category. The ${}_{adj}R^2$ of .492 (Table 9-10) means that 49.2% of the variation in corporate environment voluntary disclosure can be explained by the proposed corporate characteristics.

Corporate size measured by total assets and type of report are significant at the 1% level, whereas listing status is significant at the 5% level. Industry is also significant, with consumer products at 10% of significance. Results suggest companies large in

size, providing dual language reporting, listed on the main market, and belonging in the consumer product sectors disclose more corporate environment information. Type of report is the highest weighted variable followed by the size, listing status and industry to be the least.

Table 9-10: Results of Full Model for Corporate Environment Disclosure

Combination 1				
Multiple R	.747	**MSE**		.043
R^2	.557	**F**		8.473
$_{adj}R^2$	.492	**F-significance**		.000
Std. Error	.208			
Variables in the Model				
Variable	**β**	**Beta**	**t-value**	**t-sig.**
Total Assets	.329	.332	3.561	.001
Gearing	.038	.037	.363	.717
Profitability	.137	.136	1.213	.229
Liquidity	-.125	-.124	-1.234	.221
Marketability	.143	.145	1.539	.128
Consumer Pr	.129	.219	1.862	.067
Industrial Pr	.119	.201	1.558	.124
Volatility	-.034	-.034	-.362	.719
Share Yield	-.121	-.121	-1.226	.224
Type of Report	.286	.491	6.010	.000
Listing Status	.202	.240	2.740	.008
(Constant)	-.092		-.719	.475

As seen from the following table (Table 9-11) when univariate and multivariate results are compared there are no differences.

Table 9-11: Corporate Environment - Univariate and Multivariate Results

Research Hypotheses	**Significance Supported**		**Sign**	**Sign Supported**	
	Univariate	**Multivariate**		**Univariate**	**Multivariate**
Corporate Size	supported	supported	+	supported	supported
Gearing	not supported	not supported	±	not significant	not significant
Profitability	not supported	not supported	±	not significant	not significant
Liquidity	not supported	not supported	±	not significant	not significant
Marketability	not supported	not supported	±	not significant	not significant
Industry	supported	supported	±	supported	supported
Volatility	not supported	not supported	±	not significant	not significant
Share Yield	not supported	not supported	±	not significant	not significant
Type of Report	supported	supported	±	supported	supported
Listing Status	supported	supported	+	supported	supported

9.4.3.2 Interpretation of Corporate Environment Results (Category 1)

Corporate environment information has a strategic element and some particular areas are especially relevant to investment decisions (Anderson, 1981). Companies which take the option to report in English disclose significantly higher levels of voluntary

disclosure in the Greek language report. That may be associated with the strategic posture of these companies to the capital market. Since the annual report is a medium of communication to market participants these companies may wish to establish an adequate mechanism that ensures accessibility of relevant information. That is particularly true for strategic information included in that section. Foreign operations may provide scope for increased information since additional information is accumulated by the management for internal reasons. It may also be related to an attempt by listed companies to reach beyond the traditional secretive disclosure practices and improve the reputation of the company. It may be an attempt to attract foreign capital and imitate disclosure practices more familiar to the European and the US context. Moreover, the dual language report may represent the relative prestige of the firm or the kudos of the management.

A significant size effect has also been detected. That may be consistent with many theoretical propositions, including agency, political costs, information costs and capital need. However, considering the relative weak agency costs in the case of Greece, the significance for corporate size may be related more to the last two theoretical frameworks. Therefore, larger companies may disclose more corporate environment information because it is less costly for them to do so in terms of both non-proprietary and proprietary cost factors (Craswell and Taylor, 1992). Additionally, larger companies may be more inclined to disclose more information of this type because they confront more market pressures and they have a stronger dependence on external capital. They also have more analyst followings. Considering that a considerable part of this kind of information is strategic it is not surprising that large companies are more likely to appear to meet demands for more extensive disclosure.

Listing status has been also found to be a significant factor in this category. Companies listed on the main market provided more information of this type. That may be related to the general stance of those companies which have a more prestigious listing status to provide further information because they may have different objectives in raising finance. Therefore, these companies may face stronger

demands for corporate environment information and they may be more visible in the public eye. The observed disclosure practice may also be related to the prestige and reputation of companies listed on the main market.

Finally, an industry effect has been found in this category. Consumer product companies disclose significantly more. Differences in the fundamental characteristics of this industry may provide scope for differential disclosure in corporate environment consistent to Dye and Sridhar (1995). Moreover, proprietary costs in terms of costs of entry in the industry may be lower in this industry in the case of Greece. Furthermore, consumer product companies are more in the public eye because of their business nature. It may be seen that a range of reasons may provide some scope for differential disclosure between these industries in this area.

No other variable was found to be significant in this category of voluntary information. That may indicate a relative lack of signalling effects in this category. Since this information category consists primarily of strategic information and also information that is provided at regular intervals, performance measurements may lack association and explanatory power here. That is consistent with the findings of Meek et al. (1995) who report no association of voluntary strategic information and performance variables.

9.4.3.3 Social Responsibility Information (Category 2)

The test of the four regression models found the third model, which incorporates number of employees as a size measure, to give the lowest MSE result (.051). That is not surprising regarding the nature of this category, since the number of employees may be a more adequate measure to approach social disclosure issues than, for example, market capitalisation. The model explains 35.8% ($_{adj}R^2$ = .358) of the variation in social responsibility disclosure. The explanatory power is high considering that social responsibility is explained mainly by economic related factors. Type of report and listing status are significant at 1%, number of employees and volatility are significant at 5% and finally, industry factor (industrial product) is significant at 10%.

Table 9-12: Results of Full Model for Social Responsibility Disclosure

Combination 3				
Multiple R	.665	**MSE**	.051	
R^2	.442	**F**	5.251	
$_{adj}R^2$	.358	**F-significance**	.000	
Std. Error	.226			
Variables in the Model				
Variable	**β**	**Beta**	**t-value**	**t-sig.**
No of Employees	.206	.213	2.259	.027
Gearing	-.076	-.077	-.709	.480
Profitability	.063	.064	.505	.615
Liquidity	-.130	-.135	-1.183	.241
Marketability	.034	.036	.335	.739
Consumer Pr	.075	.133	.974	.333
Industrial Pr	.148	.260	1.764	.082
Volatility	-.207	-.212	-2.011	.048
Share Yield	-.142	-.146	-1.318	.191
Type of Report	.278	.495	5.370	.000
Listing Status	.221	.274	2.874	.005
(Constant)	.218		1.499	.138

Consequently the results suggest that those companies that have dual language reporting, belong in the industrial-product industry, have a listing in the main market, are large in size and less volatile disclose enhanced levels of social responsibility information. There are no differences between multivariate and univariate results. There is support by both types of analysis for corporate size, type of report, volatility, industry factor and listing status. All the other variables are found to have no explanatory power in both types of analysis. A summary of these associations between research hypotheses and both univariate and multivariate results is presented in Table 9-13.

Table 9-13: Social Responsibility - Univariate and Multivariate Results

Research Hypotheses	Significance Supported		Sign	Sign Supported	
	Univariate	Multivariate		Univariate	Multivariate
Corporate Size	supported	supported	+	supported	supported
Gearing	not supported	not supported	±	not significant	not significant
Profitability	not supported	not supported	±	not significant	not significant
Liquidity	not supported	not supported	±	not significant	not significant
Marketability	not supported	not supported	±	not significant	not significant
Industry	supported	supported	±	supported	supported
Volatility	supported	supported	±	supported	supported
Share Yield	not supported	not supported	±	not significant	not significant
Type of Report	supported	supported	±	supported	supported
Listing Status	supported	supported	+	supported	supported

9.4.3.4 Interpretation of Social Responsibility Results (Category 2)

Type of report, listing status, corporate size, volatility and industry factor were found to be associated with levels of social responsibility information. Type of report may reflect the corporate strategic posture and the attitudes of senior executives which may be associated with social disclosure. By increasing this type of disclosure companies may seek to increase the image or reputation of the company and so these disclosures may be a medium through which to advertise the social responsibility of the company (Gray and Roberts, 1989). The decision to report in English may reflect some influence of foreign social reporting practices in the standard reporting of companies in Greek.

Corporate size is also a significant variable in social responsibility disclosures. It may be more important for those large companies which are listed on the main market to provide a Greek language report as well as one in English. The result is consistent with the findings of prior research where firm size has been repeatedly found to be significantly associated with voluntary disclosure of social responsibility (e.g. Cowen et al., 1987; Gray, R, et al., 1995; Deegan and Gordon, 1996). That may be because large companies have a major impact on society and they may wish to discharge their social accountability (Gray et al., 1987, p.4). Moreover, large companies are more concerned about their public image and they may be more inclined to use marketing tools in order to influence perceptions. Social responsibility has been associated with share price reactions (Ingram, 1978; Shane and Spicer, 1983) and therefore may be the reason that companies with a more direct market orientation tend to provide this type of information. Analysts tend to consider social responsibility disclosures for their investment decisions (e.g. Benjamin and Stanga, 1977; Ingram, 1978; Belkaoui, 1984). Another pressure towards this kind of information is the increased concern of investment trusts over environmental and ethical issues (Rockness and Williams, 1988; Harte et al., 1991). Therefore, companies that are more sensitive to the reactions of analysts are more likely to provide these disclosures. These may be companies with greater analyst following, which in the case of Greece, are the largest companies listed on the main market. The association of this type of information with share price reactions may also be

associated with the significance of volatility found in this research. Although empirical research into the relationship between corporate social responsibility and economic performance is confusing and far from conclusive (Balabanis et al, 1998), it has been suggested that economic performance may be associated with social responsibility (McGuire et al., 1988). In particular, the outcome of this research is consistent with that of Ullmann (1985) who suggests that lower volatility is associated with social responsibility.

Industry appears to be significant in this category. Companies in the industrial product sector appear to be particularly inclined towards providing additional social responsibility disclosures, perhaps demonstrating more sensitivity towards social accountability. That is particularly related to the stance of some companies (e.g. cement manufacture) in providing extensive environmental disclosures. These companies and also their respective industries are potentially more environmentally damaging and associated with higher social costs and thus, may be more politically sensitive. This result is consistent with the findings of Meek et al. (1995) and Adams et al. (1998). Moreover, industry type may also be capable of capturing the relative risk that is associated with these disclosures (Deegan and Gordon, 1996). Other variables were not found to be significant in this disclosure area. That is probably because it is unlikely that this type of information would be associated with strong signalling effects since it is more related to accountability issues.

9.4.3.5 Financial Information (Category 3)

The regression, which incorporates market capitalisation as the size measure, is the model with the lowest MSE. It explains 27.3% ($_{adj}R^2$ = .273) of the variation in voluntary financial information. Market capitalisation is the only significant variable at 1% where listing status and share yield are significant at 5% (Table 9-14). Type of report has no explanatory power in this category. Therefore, results suggest that companies large in size, listed on the main market and experiencing less favourable share returns disclose more financial information.

Table 9-14: Results of Full Model for Financial Disclosure

Combination 4			
Multiple R	.606	MSE	.062
R^2	.367	F	3.897
$_{adj}R^2$	.273	F-significance	.000
Std. Error	.248		

Variables in the Model				
Variable	β	Beta	t-value	t-sig.
Capitalisation	.514	.518	3.779	.000
Gearing	.032	.031	.267	.790
Profitability	.148	.148	1.085	.282
Liquidity	.019	.019	.157	.876
Marketability	.068	.071	.632	.529
Consumer Pr	.032	.055	.394	.695
Industrial Pr	.050	.085	.551	.583
Volatility	-.023	-.030	-.266	.791
Share Yield	-.276	-.278	-2.087	.040
Type of Report	.033	.057	.582	.562
Listing Status	.177	.211	2.050	.044
(Constant)	.062		.405	.686

As seen in Table 9-15, both univariate and multivariate results support corporate size, share yield and listing status to be significant factors in this category. Furthermore, gearing, marketability, industry, volatility and type of report are found to be non-significant by both types of analysis. However, there are mixed results in terms of profitability and liquidity which are found to be significant by univariate tests but of no association by regression analysis.

Table 9-15 Financial Disclosure - Univariate and Multivariate Results

Research Hypotheses	Significance Supported		Sign	Sign Supported	
	Univariate	Multivariate		Univariate	Multivariate
Corporate Size	supported	supported	+	supported	supported
Gearing	not supported	not supported	±	not significant	not significant
Profitability	supported	not supported	±	supported	not significant
Liquidity	supported	not supported	±	supported	not significant
Marketability	not supported	not supported	±	not significant	not significant
Industry	not supported	not supported	±	not significant	not significant
Volatility	not supported	not supported	±	not significant	not significant
Share Yield	supported	supported	±	supported	supported
Type of Report	not supported	not supported	±	not significant	not significant
Listing Status	supported	supported	+	supported	supported

9.4.3.6 Interpretation of Financial Information Results (Category 3)

Table 9-14 shows that voluntary disclosure of financial information is explained by corporate size, share yield and listing status. Corporate size is the single most influential corporate factor. This result is consistent with many studies of voluntary

disclosure (e.g. Gray, S, et al., 1995; Meek et al., 1995). Larger companies tend to disclose more financial information for a variety of reasons, although agency and political cost reasons may not be strong explanations. It may be appropriate to view this association in terms of an information cost perspective and capital-need rationale. Large companies may disclose more financial information for reasons of lower cost factors. Large Greek companies have sophisticated information systems and produce relevant information for internal reasons, so the opportunity costs of disclosing this type of information are lower compared with those of small companies. It may also be the case that financial information may be more directly associated with proprietary costs. Therefore, large companies may fear these costs less than small companies and in turn are more inclined to disclose relevant information. Moreover, large companies are more likely to be orientated towards the capital market and to adopt practices desired by the investment community. That is because they need more external finance and have higher analyst followings. Therefore, they are more likely to provide the financial information which is expected by the investment community.

Listing status has been also found to be significant in this area, consistent with the findings of Meek et al. (1995). Companies listed on the main market are more sensitive to the need to raise capital and therefore are more likely to respond to the pressures of the investment analysts towards this type of disclosures. Moreover, disclosure may reflect the competition between listed companies which may seek to be more attractive to international investors by disclosing enhanced levels of financial information. Information cost reasons and the rationale of capital need incentives, discussed earlier in relation to size, may exist here as well.

A negative association with share yield has also been found. Companies experiencing negative share returns may provide more financial information in order to explain that the financial fundamentals of the company are such as to point to future progress of the company and a recovery of the share price. That may be particularly the case for financial information rather than other types of information

because it may be considered more adequate to support the claims of directors for recovery and it is more important for financial analysts (e.g. Benjamin and Stanga, 1976). This association may also be viewed in the context of '*bad news*' which may ward off a severe devaluation of the share capital and cause a loss of corporate reputation, consistent with Skinner (1994). Stockholders, security analysts and other investors dislike surprises which may lead to adverse reactions and may especially be less well disposed towards managers who withhold any relevant information (ibid).

Other variables were not found to be significant in this context. That may be owing to the weak agency and political costs existing in this situation, as discussed earlier. Type of report was not found to be significant here, in contrast with the findings for the other two categories. That may be explained by the relative enhanced costs associated with financial information and also with the attitudes of senior directors in communicating sensitive information through other corporate media (e.g. private disclosure).

9.4.4 Further Observations on Research Findings

The relative frequency of observance, corporate size, type of report and listing status in almost all disclosure categories indicates that the same companies disclose increased levels of voluntary disclosure across the range. That becomes evident when disclosure indices are correlated to each other. Therefore, Table 9-16 suggests that companies which disclose high levels of voluntary information in the first category do the same in other categories.

Table 9-16: Correlation Matrix between Disclosure Categories

Categories	Corporate Environment	Social Responsibility	Financial
Corporate Environment	1.000 .		
Social Responsibility	.645** .000	1.000 .	
Financial	.556** .000	.410** .000	1.000 .

Finally, the results of overall index and indices for the three categories of voluntary disclosure tend to support strong significance for corporate size, type of report and listing status (Table 9-17). There is also support for an industry factor. Share yield

has some support but is less strong. Results on separate disclosure categories tend to support those reported on overall levels. While corporate environment and social responsibility disclosures tend to show similar results, financial disclosures report some different associations in the significance of share yield and the non-significance of type of report.

Table 9-17: Results of Categories and Overall Voluntary Disclosure

Variables	Overall	Corporate Environment	Social Responsibility	Financial
Corporate Size	(1%)	(1%)	(5%)	(1%)
Profitability				
Liquidity				
Marketability				
Consumer Pr	(10%)	(10%)		
Industrial Pr	(5%)		(10%)	
Volatility			(5%)	
Share Yield	(5%)			(5%)
Type of Report	(1%)	(1%)	(1%)	
Listing Status	(1%)	(1%)	(1%)	(5%)

Results tend to support the initial anticipation of the current study that voluntary disclosures are not an amorphous group and do not operate as such since there systematic similarities and differences between areas of voluntary disclosure. Moreover, if results are screened with prior results in developed and those of emerging capital markets (synthesised in 2.8.1.3) it seems that results for Greece (e.g. non-significance for gearing and liquidity) are similar to those of emerging markets rather than those of developed capital markets.

9.5 Type of Report

The results of voluntary disclosure indices have revealed that the type of report variable is a particularly strong explainer of voluntary disclosure. Further investigation is appropriate to obtain better insights into the companies that use or do not use dual language reporting. Since interpretations of relative associations have been reported in the previous sections, this section aims mainly to derive insights into the relationship between the two separate clusters of companies as categorised by the type of report and company specific characteristics.

In order to investigate the factors associated with each of these two categories, regression analysis is run for each category at overall scores of voluntary disclosure. The approach described in 7.5.2.2 and in the first sections of this chapter is applied here. Therefore, continuous variables are transformed to normal scores and percentile ranks and they are chosen according to the MSE criterion. Descriptive statistics are provided in Table 9-18. Gearing has been excluded from this examination since the results of the previous study evidenced non-significance in all categories of voluntary disclosure. Therefore, in this analysis eight independent variables are tested. These are corporate size, profitability, liquidity, marketability, industry, share volatility, share yield and listing status.

Table 9-18: Descriptive Statistics - Transformed Disclosure Index

Descriptive Statistics				
	Greek Language (46 companies)		Dual Language (Greek-English) (41 companies)	
	Normal Scores	Percentile Ranks	Normal Scores	Percentile Ranks
Mean	-.000018	.4891	-.0000048	.5000
St. Deviation	.93832	.2918	.933535	.2995
Minimum	-2.028	.000	-1.981	.00
Maximum	.2028	.98	1.981	1.00
Median	-6.9E-17	.4891	.00000	.5000
Kolmogorov-Smirnov Lilliefors Significance	.200*	.200*	.200*	.200*
Normality Rejected	no	no	no	no

* That is the lower bound of the true significance

Findings of the regression models are reported in 9.5.1 and 9.5.2.

9.5.1 Greek Language (only) Report

The best model incorporates number of employees as a size measure, since it results in the lowest MSE (.0576). The model explains 32.9% ($_{adj}R^2$ = .329) of the variation in voluntary disclosure for companies that report only in Greek. Industry, listing status, volatility, and liquidity are the significant variables. While industry is the only variable significant at 1% (Table 9-19), listing status is significant at 5%, volatility and liquidity at 10%. Therefore, results suggest that from the companies reporting only in Greek, those that belong to the industrial product and consumer product industries, are listed on the main market, have lower volatility and liquidity tend to disclose more voluntary information.

Table 9-19: Greek (only) Report - Results of Chosen Model

Combination 3				
Multiple R	.683	MSE		.0576
R^2	.467	F		3.401
$_{adj}R^2$	.329	F-significance		.004
Std. Error	.234			
Variables in the Model				
Variable	**β**	**Beta**	**t-value**	**t-sig.**
No of Employees	.237	.231	1.535	.134
Profitability	.349	.347	1.627	.113
Liquidity	-.339	-.340	-1.927	.062
Marketability	.242	.244	1.589	.121
Consumer Pr	.336	.568	2.952	.006
Industrial Pr	.374	.638	2.971	.005
Volatility	-.285	-.279	-1.906	.065
Share Yield	-.108	-.107	-.598	.554
Listing Status	.307	.333	2.489	.018
(Constant)	-.123		-.626	.535

Companies tend to be influenced by a variety of factors. The single language report may indicate influences only by domestic factors. Moreover, the particular approach to the Greek annual report may be associated with the priority of companies to meet regulatory obligations. However, there are also market pressures for these companies reflected in the significant variables. Industry factor is the most important one in this category. Different industries choose differential disclosure policy, which may reflect the '*follow the leader*' effect or it may reflect the different characteristics and policies of different industries. Listing status may be related to the capital need sensitivity, reputation and visibility of these companies. Liquidity is also significant with a negative sign, however. This may suggest that companies are more informative when they have to explain a negative performance ('bad news') or these companies may have transferred liquid assets to investments and they wish to explain that or the predictions of signalling may not hold here. Finally, volatility is also associated with a market orientation and also with the likelihood of companies to imposition of penalties from excessive share volatility.

9.5.2 Dual Language Reporting (Greek-English)

The fourth model which incorporates market capitalisation as a measure of size gives the lowest MSE result (.0564) and is selected. The explanatory power of this model reaches 37.1% of voluntary disclosure (Table 9-20). Corporate size is significant at 1% and share yield, which has a negative coefficient, is significant at 10%. The

highest weighted variable is corporate size. Therefore, results suggest that companies having a higher market capitalisation and experiencing less favourable share yields tend to disclose more voluntary information in their annual reports.

Table 9-20: Dual Language Reporting - Results of Chosen Model

Combination 4				
Multiple R	.716	**MSE**		.0564
R^2	.512	**F**		3.619
$_{adj}R^2$	.371	**F-significance**		.003
Std. Error	.237			
Variables in the Model				
Variable	**β**	**Beta**	**t-value**	**t-sig.**
Capitalisation	.894	.894	4.316	.000
Profitability	.023	.023	.158	.876
Liquidity	-.089	-.089	-.560	.580
Marketability	.229	.229	1.343	.189
Consumer Pr	-.101	-.171	-.807	.426
Industrial Pr	-.028	-.046	-.204	.840
Volatility	-.002	-.002	-.010	.992
Share Yield	-.336	-.336	-1.903	.066
Listing Status	.024	.029	.194	.847
(Constant)	.180		.956	.347

Voluntary disclosures in this group tend to be influenced by corporate size and share yield. Although corporate size may be related to a variety of reasons, it has been argued to be associated with information costs and market based issues. That may be particularly relevant here since dual language reporting implies further costs (e.g. preparatory, designing costs). Share yield also indicates some strong market effect. It may therefore be the case that these companies are more orientated to the domestic and foreign capital markets and they adjust their disclosure policies to respond to market pressures.

9.5.3 Observations on Type of Report

Results indicate that companies reporting also in English use the Greek annual report not just as a statement to meet their legal obligations. Thus, they are more open and transparent than other companies. That may also represent a higher users demand on information about these companies. Although there is no direct way to measure demand for accounting information, it seems that those companies confront more of these pressures and as a result they have wider sets of information to be communicated to stakeholders.

An English language version of the annual report may represent a signal to the market about the relative prestige of the firm or the kudos of the management. That is also because the style of report in Greek for companies that report in English is more user-friendly. It has been argued (Ewen, 1988; Lee, 1994) that managers use annual reports as part of an image management function to influence external stakeholders. Therefore, the style of the annual report may indicate issues other than traditional stewardship or agency function. Furthermore, the style of report, as influenced by the decision to report in English, may be an innovation of the Greek companies to overcome the traditionally secretive reporting attitude by revealing at free will some further information about operations and objectives. That may be particularly the case since the English formats of these reports reveal the stance of these companies towards international investors. It may therefore be an attempt by Greek listed companies to imitate disclosure practices of similar European or international companies.

In conclusion, the annual report based only in the Greek language is viewed as a means by which the management meets its legal obligations towards the government and its shareholders as influenced mainly by domestic factors, and responds to market demands. Annual reports in Greek with an English language translation seem to discharge better the stewardship relationship with their shareholders and also supports a wider view of public accountability towards those who have reasonable rights. Needs of foreign users seem to be considered here, influencing the overall disclosure policy in Greek. The Greek annual report as a complete statement tends to take different approaches between listed companies. Although some degree of innovation in financial reporting is a healthy response to a changing environment (Tweedie and Whittington, 1990), that might be contradictory in the future to the main aim of Greek standard setting which is the standardisation of financial reporting.

9.6 Regression Models Including Relative Performance Measures

This section presents the results of the regression analysis when relative performance measures are used. These are compared with the results presented by current year measures in 9.4 and they are critically evaluated. The relative influence of these variables on voluntary disclosure practices is assessed and conclusions are drawn on the scope of relying on these measures to approach signalling effects in voluntary disclosure. The same approach to the multivariate analysis described in 7.5.2.2. and 9.3 is applied here.

9.6.1 Overall Index of Relative Performance Measures

In order to specify the model with the lowest MSE and the relative best explanatory power, models incorporating one of the five relative measures each time were run (Table 9-21).

Table 9-21: Models Incorporating one Relative Performance Variable

Regression Models					
Variables		Total Assets	Turnover	No. of Employees	Market Capitalisation
Relative Profitability	$_{adj}R^2$	.484	.489	.448	.516
	MSE	.0439	.0435	.0476	.0412
Relative Liquidity	$_{adj}R^2$	.488	.479	.442	.507
	MSE	.0436	.0044	.0481	.042
Relative Marketability	$_{adj}R^2$	.471	.466	.439	.499
	MSE	.0451	.0455	.0484	.0427
Relative Volatility	$_{adj}R^2$	.479	.476	.443	.506
	MSE	.0444	.0446	.048	.0421
Relative Share Yield	$_{adj}R^2$	.486	.478	.450	.482
	MSE	.0438	.0445	.0474	.0441

When the relative measure of profitability is included in the model the explanatory power of the model takes the lowest MSE and also the highest $_{adj}R^2$ using capitalisation for corporate size. In order to examine whether there is any improvement when a second variable is included relative measure of profitability remains in the equation and one of the other four relative measures is included each time (Table 9-22).

Table 9-22 Models Incorporating Profitability and one Performance Variable

Regression Models					
Variables		Total Assets	Turnover	No. of Employees	Market Capitalisation
Relative Liquidity	$_{adj}R^2$	.487	.491	.448	.517
	MSE	.0437	.0434	.0476	.0412
Relative Marketability	$_{adj}R^2$	.458	.470	.430	.500
	MSE	.0461	.0452	.0491	.0426
Alter. Volatility	$_{adj}R^2$	.458	.471	.424	.505
	MSE	.0462	.0451	.0496	.0422
Alter. Share Yield	$_{adj}R^2$	.494	.498	.458	.509
	MSE	.0431	.0428	.0467	.0418

When the relative measure of liquidity is included the model is not improved. The next run does not improve the model any further. Therefore, the model which incorporates market capitalisation as a size measure and relative profitability and liquidity is reported. This model explains 51.7% ($_{adj}R^2$ = .517) of the voluntary disclosure variation which is explained by corporate size, as measured by market capitalisation, type of report and listing status. Therefore, overall results suggest that companies large in size, using dual language reporting and listed on the main market tend to disclose more voluntary information. The results of this model are satisfactory considering the considerable explanatory power. When the model incorporating relative performance measures is compared with the model incorporating current year measures it tends to have a slightly better fit and a slightly lower MSE (Table 9-23). While share yield is significant for the current year models there is no performance variable reported as being significant by the relative measures model. However, the difference between the two models in terms of MSE and also $_{adj}R^2$ is not big enough to give grounds for strong conclusions. Overall results suggest that the regression model using relative performance measures may be of some concern since it results in considerable explanatory power. Moreover, when this model is compared with the one including current year measures it tends to have a slightly better fit although it does not report relative performance measures to be significant.

Table 9-23: Current Year and Relative Regression models of Overall Index

Measures	Current Year (combination 4)	Relative (combination 4)
$_{adj}R^2$	.509	.517
MSE	.0418	.0412
Variables	**Regressions**	
Overall Index	**Percentile Ranks**	
Capitalisation	S	S
Gearing	NS	NS
Profitability	NS	NS
Liquidity	NS	NS
Marketability	NS	NS
Industry Consumer Product	S	S
Industry Industrial Product	S	S
Volatility	NS	NS
Share Yield	S	NS
Type of Report	S	S
Listing Status	S	S
Constant	NS	NS

Thus, it could be noted that relative measures as applied here are of consideration for issues of voluntary disclosure but do not capture more adequately signalling effects. Further research in this area is required to clarify further forms of performance measures as associated with disclosure matters.

9.6.2 Results of Voluntary Disclosure Categories Incorporating Relative Performance Measures

Results of categories of voluntary disclosure when relative performance measures are incorporated do not differ materially when compared with the models of current year measures. Results on corporate environment and social responsibility disclosures report similar significant variables and explanatory power. Financial disclosures tend to be slightly different. The model incorporating relative measures tends to result in a higher explanatory power and to report amongst the other common significant variables (corporate size, listing status, and share yield), profitability as well. That may result probably because financial disclosures are more related with these measures.

Overall, models of relative measures indicate considerable explanatory power in both overall and categories of voluntary disclosure. Although they do not seem to capture

strong signalling effects in overall disclosure, corporate environment and social responsibility, they tend to be more powerful in financial disclosures. That suggests that relative measures may be more applicable in specific areas of disclosure, apparently financial information. Overall, results indicate the need to look for other proxies of performance measures than those that have been applied in disclosure studies so far. That may be extended to other methods that purport signalling effects in accounting disclosure. The industry benchmark, for example, could be another option. Therefore, despite the results reported here, this issue is still open but beyond the objectives of this research.

9.7 Summary and Conclusions

This chapter has presented the results and discussed issues related to univariate and multiple regression analysis. Univariate analysis (9.2) showed that voluntary disclosure is significantly related to size, type report, industry factor and listing status. Inversely no significant relationship was found for gearing, and liquidity. There is less clear direction in other variables tested. Although the univariate analysis provided some indications of voluntary disclosure practice, the results of multivariate analysis were relied upon to bring more light in order to complete a part of the voluntary disclosure puzzle for the case of Greece. Section 9.3 explained issues related to the design of the multiple regression analysis.

Regression analysis (9.4) on the overall index of the current year model indicated that those companies which are large in size, use dual language reporting, are listed on the main market, belong to the consumer and industrial product sector and have less favourable share performances tend to disclose increased levels of voluntary information. Corporate size, as measured by market capitalisation, was found to be the variable with the highest explanatory contribution. These results do not differ materially from univariate results. Interpretations were provided according to theoretical frameworks and Greek institutional characteristics. Capital need theory and information costs appeared to be particularly relevant. When results are compared with prior studies in developed and emerging capital markets (synthesised in 2.8.1.3) it seems that results for Greece (e.g. non-significance for gearing and

liquidity) are similar to those of emerging markets rather than those of developed capital markets, probably indicating that Greece has characteristics similar to those of other emerging capital markets.

Disclosure categories were examined in order to investigate further the relative associations existing in more homogeneous information themes. Overall index results were supported by separate categories, although there were some variations of the influential factors amongst different categories of voluntary disclosure. That verified the expectations stated in chapter 7. While corporate size, type of report, listing status and industry were significant for corporate environment information, corporate size, type of report, listing status, industry and share volatility were significant for social responsibility information. Finally corporate size, listing status and share yield were found to be significantly associated with financial information. These results were interpreted by theoretical frameworks as applied to specific disclosure categories and knowledge of Greek characteristics. It was also reported that companies disclosing the highest information in one disclosure theme tend to follow the same in all information areas.

In the light of the interesting results on type of report some further investigation has been undertaken (9.5). Results indicated that the companies using dual language reporting and disclosing significantly more voluntary information are influenced by factors different from those of the companies using a Greek language only report. These factors, namely market capitalisation and share yield implied a strategic orientation of those companies towards the capital market which makes them being more open and transparent. Issues related to strategic orientation, foreign operations, shareholding indicated some further understanding about the reasons companies use different types of reports.

Section 9.6 presented the results of regression analysis when relative performance measures are included. The main aim was to investigate whether regression models based on those performance measures that have been argued to be more satisfactory by the users are more capable in capturing signalling effects in voluntary disclosure

(7.4.2). A comparison of this with the current year model and also an evaluation of both has been demonstrated. Models of relative measures are of some consideration since they result in high explanatory power. However, they fall short in capturing signalling effects in overall and categories of voluntary disclosure, except financial information. Nevertheless, the outcome of these results might have been time specific, since the singular characteristics of the year of this study (1997) might have influenced the structure of the data. Although both models have not strongly supported signalling effects, that may be related to the efficiency and (or) the corporate culture of the financial system. Therefore, the question over the appropriateness of measures to capture signalling effects remains open to be investigated further in the future.

While all models provided a significant explanatory power there is still a substantial element of disclosure variation unexplained owing to a set of reasons. First, information theories are incomplete, particularly when emerging capital markets are investigated, which may impact on the explanatory power of models derived from them. Second, there may be unavailability of data, which may restrict quantification of variables. Factors such as quality of management and external consultancy or ownership structure belong here. Third, there may be some intrinsic randomness because of the nature of human behaviour. Finally, the disturbance term may also represent errors of measurement. That may be particularly the case in accounting disclosure where the dependent variable cannot be measured directly and also for reasons explained analytically in 7.3.3.3.

Although quantitative results presented in this chapter provided important insights on voluntary disclosure, some issues, owing to their nature, still remain open questions. These will be approached by interview research, reported in the following chapter. Theoretical issues discussed in each section of the quantitative results will be brought with the results of the interviews and discussed further in chapter 11.

CHAPTER 10

10. Interviews

10.1 Introduction

This chapter addresses the third research question (1.4). For the purposes of a better assessment of a broader picture of voluntary disclosure (as indicated in 7.2.2) it is necessary to be able to indicate matters that have significant impact on the extent, credibility, nature and use of voluntary disclosure. Thus, the main purpose of this chapter is to approach issues relevant to the research objectives that cannot be easily captured through a quantitative study. As explained in 1.2.3, an interview study was planned in order to gather insight into significant issues related to voluntary disclosure. The specific objectives of the interview study are explained in 10.2. The number and categorisation of interviewees and the structure and process of the interview research have been presented in 7.2.2 and 7.3.4 respectively.

This chapter investigates the perceptions of market participants who influence directly or indirectly voluntary disclosure in the Greek capital market. This chapter provides significant insights into understanding voluntary disclosure behaviour, validates or questions the results of the quantitative study and provides a richer interpretation of the associations observed. Moreover, it casts some light on the limitations of the quantitative study, expands anticipations of voluntary disclosure from which future research may be built and investigates theoretical issues. This chapter also contributes to policy issues discussed further in chapter 11.

This chapter is organised as follows. Section 10.2 outlines the main objectives of the interview research. Sections 10.3 and 10.4 discuss perceptions of influences on voluntary disclosure and the relative costs and benefits. Section 10.5 reports on the main use of voluntary disclosures by market participants. Perceptions of the credibility of voluntary disclosure published in annual reports and private voluntary disclosure are presented in sections 10.6 and 10.7. Issues related to the nature and the

actual operation of voluntary disclosure are outlined in sections 10.8 and 10.9. Finally, a summary and the conclusions of this study are presented in section 10.11.

10.2 Objectives of Interviews

Interviews were conducted in order to approach issues that could not be captured or analysed through a quantitative approach. Many issues in accounting information are a matter of confidentiality, commercial and regulatory sensitivity which can be approached more easily by one-to-one discussion rather by a survey. Preparers may be less reluctant to reveal information that is partially disclosed or not disclosed in annual reports in a private meeting, and also to explain further issues related to annual reports. The same may apply for regulators who may specify matters that cannot be easily communicated in public since they may raise public outcry or could lead to legal action. Similar situations may be faced by all market participants who influence accounting information.

Thus, interviews were thought appropriate to offer guidance to fruitful extensions of the research findings and interpretations of the quantitative study. Interviews with companies not included in the sample are intended to cast some light on the reasons why companies not responding in an initial request for an annual report (7.2.1) are willing to discuss voluntary disclosure issues in private. These interviews also provide some indications about the relative potential to generalise research findings. The interview research builds upon the general objectives of this research (stated in 1.2). Thus, understanding voluntary disclosure behaviour provides insights into the applicability of disclosure theories in an emerging capital market (GO_1). Defining and understanding the nature of voluntary disclosure (GO_2) contributes to clarifying further the behaviour of voluntary disclosure (GO_3). These objectives are approached in this interview section by concentrating on some specific objectives that have directed the interview study (Table 10-1). Therefore, the interview objectives (IO) are the following:

- *IO_1: To obtain opinions about factors influencing voluntary disclosure, the reporting system and regulatory framework.*

- *IO_2: To explore perceptions of the relative use and credibility and overall extent of the voluntary disclosures.*
- *IO_3: To clarify and gain further insights into the nature of voluntary and mandatory disclosure.*
- *IO_4: To obtain comments on empirical research findings and validate interpretations.*
- *IO_5: To understand theoretical models and cast light on the applicability of theoretical frameworks.*

Table 10-1: General Objectives and Interview Objectives

Interview Objectives (IO)	Chapter Sections	General Objectives (GO)
IO_1	10.3, 10.4	GO_3
IO_2	10.5, 10.6, 10.7	GO_3
IO_3	10.8	GO_2
IO_4	10.9	GO_3
IO_5	10.10	GO_1

In contributing to the general research questions, an understanding of the issues stated above in the form of interview objectives may assist in a better understanding of the Greek reporting environment and also in a further development of combined and stronger research designs in future studies. Furthermore, approaching the aforementioned objectives is expected to point to limitations of the quantitative study.

10.3 Influences on Voluntary Disclosure

This section reports on the perceptions of influential market participants about the factors that impact on voluntary disclosure in the annual reports of companies listed on the ASE (Table 10-2).

Interviewees most frequently cited size (item 1). However, many respondents provided different explanations for the significance of size. Profitability (item 2) was more frequently perceived to be associated with voluntary disclosure when compared with liquidity (item 3). Market performance (item 4), especially share performance, has been suggested as an influential factor although the way it was perceived to influence voluntary disclosure was more ambiguous.

Table 10-2: Perceptions on Influential Factors

Factors	Directors (7)	F.Analysts (3)	Regulators (5)	Auditors (5)	Bankers (3)	Total (23)
1. Size	7	2	4	5	3	21
2. Profitability	6	2	1	2	1	12
3. Liquidity	2	0	1	1	0	4
4. Market Performance	5	2	1	2	2	12
5. Industry	7	2	3	4	3	19
6. Listing Status	6	2	2	3	3	16
7. Quality of Management	7	3	3	3	3	19
8. Internal Factors	6	3	2	4	2	17
9. Institutional Characteristics	7	3	4	4	2	20
10. Ownership Structure	3	1	0	1	2	7
11. Dividend Policy	1	0	0	0	1	2
12. Consultants	5	0	0	5	0	10

However, one financial analyst (Financial Analyst A) argued that the ASE and the majority of listed companies have not reached the level of efficiency and organisation to give grounds for such an assertion.

> '*...In general I believe that the size of the company drives the extent of disclosure. I would say the performance of the company and the market performance and also factors like the specific objectives of the company. Some companies have some views about a stock listing. That also influences the extent of the annual report. The industry is also important and characteristics like the competition within the industry... The orientation of the company towards international markets is also influential. The ownership may be also one factor. Moreover, aspects related to the special characteristics of every company and its peculiarities.... However, I guess there may be others that I don't know...*' (Director D, 04/04/00).

Industry (item 5) and listing status (item 6) were also identified as being influential by the majority of respondents (19 and 16 respectively). Interviewees also pointed out quality of management (item 7) and internal corporate characteristics (item 8) to be of particular concern (Table 10.2.). The attitudes of the chief executive, directors or influential employees in charge of accounting information systems may have a direct influence on disclosure practices. The quality of the management has been signed out as a significant factor on disclosure decision making in prior research studies (e.g. Gibbins et al., 1990). Interviewees indicated that the financial director

was the executive most closely concerned with voluntary disclosure decisions. However, in many listed companies the finance director and chief accountant were the same person. The chairman or chief executive (when different persons) had some influence in the overall philosophy of disclosures. Moreover, the public relations department provided some influence especially in corporate environment and social responsibility disclosures. The relations with financial analysts also influence the levels and types of published voluntary disclosure. That will be further analysed in 10.7.

None of the seven directors agreed on the internal reason for their company's approach to reporting on certain extent or on particular areas. The comments and examples of interviewees directed the researcher to the assertion that the firm's history and corporate tradition seem to influence corporate disclosure. That could be because people take corporate tradition for granted or it is imposed upon them as part of organisational identity. Two directors interviewed, for example, have established a certain pattern of voluntary disclosures in terms of employee information or presentation of corporate prestige because of certain circumstances (e.g. disputes with trade unions). A change in this disclosure strategy could be perceived as a signal for change of the (overall or specific) managerial strategy. Moreover, respondents pointed out that market participants and especially employees learn from history and they tend to follow indications derived from rewards or penalties. Thus, particular circumstances may explain a part of preferences towards ways or types of disclosure items. Voluntary disclosures which are perceived to have resulted in negative impacts may be less likely to be disclosed even where there are sound reasons for doing so. The strategic orientation of management was also suggested as being a particularly influential factor. Examples of companies with extensive activity abroad were given to support this argument.

Institutional characteristics (item 9) were of particular concern. That includes macroeconomic and microeconomic factors and also factors related to firm specific matters. The development of the ASE, the capital-raising activity, the institutional changes and the improved economic development were considered to be issues

particularly influential on voluntary disclosure, particularly when compared wih previous years. The thinness of the market and the perception that the ASE functioned poorly were suggested as being major constraints on information provision. Information provision is perceived to be suddenly improved as an outcome of the rising demand for corporate information.

> '*...I think that the developments in the capital markets have influenced the objectives, the extent, the type, and the reliability of information... I would say that many and different changes, but in a strange way interrelated to each other, have shaped the current information outcome... There are more regulations, the CMC is more strict in information issues, foreign institutional investors got interested, banks tend to be less important in financing decisions, new managers and analysts came from abroad, every single Greek citizen is more than interested in the ASE, the economy does well.... I think included are the new attitude and psychology of managers and stock brokers and all key players in the market... this passage to improved efficiency will have a catalytic change in everything in some years...*' (Financial Analyst B., 12/04/00).

Although these factors have not been operationalised in the current study because they would have been more appropriate for a time series study, they provide some additional justification for the selection of the time period of this research. Moreover, they provide a basis for evaluating disclosure behaviour by companies and also for commenting on the relative complexity of this task.

Respondents pointed out additional influential factors. Ownership structure was initially indicated by four respondents to be influential. When directors were asked whether a different ownership status would influence their disclosure policy three answered positively. However, since many state- or family-owned companies or companies with extensive institutional presence were indicated to be of high levels of disclosure, a clear conclusion could not be formed here. Dividend policy was also suggested by two respondents.

Moreover, auditors (5), and directors (5) suggested that external consultants and advisors were of some influence in the disclosure strategies of companies. External advisors may assist in identifying issues of general strategy of corporate disclosure or

identify specific areas worth reporting. That may be more relevant to relatively smaller firms because they lack the presence and sophistication of internal consultants. The audit firm was suggested to be influential only by two big-five auditors, although all others suggested that the identity of individual auditor was more relevant.

Overall, the interviewees suggested that a particularly numerous and complex set of factors influenced the actual practice of voluntary disclosure. Corporate size was suggested by almost all respondents (21) as being the factor that drives voluntary disclosures, with industry, listing status and corporate performance being perceived as influential. These factors have been operationalised by the quantitative part of this study. However, interviews also revealed some areas that tend to play a significant role in voluntary disclosure which have not been included in this study. The quality of management, internal factors, the efficiency of the accounting information systems, the firm image and reputation and institutional characteristics are factors discussed.

10.4 Perceived Benefits and Costs

Although the discussion of the influences on voluntary disclosure provides insights into the factors that may be influential on voluntary disclosure practice, it does not clarify the mechanism (decision process) of disclosure. That may be particularly true where decisions on specific information items or themes are concerned. Although there is considerable theoretical research in this context (e.g. Dye, 1985; Teoh and Hwang, 1991; Gigler, 1994), there is little empirical research (e.g. Gray and Roberts, 1989; Gray et al., 1990).

All interviewees suggested that there are some apparent costs and benefits associated with those disclosures. Regulators and bankers did not participate here. They stated that they could not have a direct and clear view about the relative benefits and costs. Therefore directors, auditors and financial analysts were interviewed on the following grounds. While directors make actual decisions, auditors as advisors who know internal information may express views on costs and benefits. Financial

analysts that usually have a broader view of the market and information issues provide views as knowledgeable outsiders. Auditors and financial analysts are used in order to comment and probably control overestimated or underestimated views of directors. The majority of respondents (11/15) suggested that some cost-benefit analysis take place during disclosure decisions (Table 10-3).

Table 10-3: Perceptions on Cost-Benefit Analysis

Factor	Directors (7)	F.Analysts (3)	Auditors (5)	Total (15)
Cost-Benefit Analysis	6	2	3	11

However, three respondents challenged the sophistication of this analysis. Two interviewees suggested benefits and costs should be connected by reference to particular cases since they may differ significantly amongst different companies. It was also mentioned that the separation of a single benefit as a driving force is not easy since the disclosure strategy is organised with '*everything in mind*'.

10.4.1 Perceptions of Benefits

The majority of the interviewees (13/15) suggested that the main benefits of voluntary disclosures in the annual report are to increase the reputation or image of the company (item 1) and to provide accountability functions (item 2) to shareholders (11/15), as seen in Table 10-4.

Table 10-4: Perceptions of Benefits of Voluntary Disclosure

Benefits	Directors (7)	F.Analysts (3)	Auditors (5)	Total (15)
1. Improve Reputation-Image	7	2	4	13
2. Improved Accountability to Shareholders	7	1	3	11
3. Market Related Benefits	5	2	3	10
4. Improve Relations with Associated Groups (e.g. suppliers, customers)	5	1	2	8
5. Accountability to Society	3	0	0	3

These benefits tended to be quite important for all respondents but with a different degree of importance. Directors expressed stronger views.

> '...*We provide voluntary disclosure in order to respond to demands of a modern market environment. We believe that this is good for the reputation of the company and also we feel that our shareholders have the right to know something more than what is required by the law... Of course this information helps the company in many respects. Financial analysts learn more and also that provides incentives for*

> *more avocation with the company. That helps the market orientation of the company. Suppliers and customers learn more and that is to our advantage. That also helps the image of the company to the public, journalists and other parties...*' (Director B, 06/04/00).

Market related benefits (item 3) were also evident throughout the interviews (10/15). Although information was considered to be a crucial factor for a successful policy towards the capital market and share price performance, two financial analysts emphasised that the voluntary disclosure policy adopted in the annual report is as a continuation of the overall disclosure policy of the company. Directors perceived potential market related benefits including the reduction of information risk, increased liquidity, and reduced cost of capital. One financial analyst noted also that voluntary disclosure may be enhanced when the management feels that the share price is undervalued. It was further suggested by one financial analyst and two directors that voluntary disclosure might be part of the corporate strategy towards a certain shareholder structure.

> '*...Some managers may provide considerable voluntary disclosure to show that the share price is undervalued and attract the interest of stock analysts. However almost all directors say that share price is undervalued, some believe so. The one who decides though is the market.... A disclosure strategy may also targets at achieving and/or maintaining some specific shareholder structure. Most managers are interested in large institutional ownership...that is because they tend to be more stable, is a market for new stock and I guess is a good sign for the value of the company. That also helps the company further (banks, suppliers and customers). I think it is material for these difficult times since most of investors are short-termists...*' (Financial Analyst B, 12/04/00).

However, one banker mentioned that the capital market sensitivity might be overemphasised since private voluntary disclosure dominates. That is further discussed in 10.7. Perceptions of benefits seem to be quite skewed on accountability to society which is supported by only three directors. There is also an indication that there are some other benefits Greek listed companies may seek to achieve through voluntary disclosure. These may be related to the general strategy towards some groups (banks, suppliers, employees) or it may refer to particular aims of the company.

'*...the benefits are many; I am not sure if all preparers are aware of their importance. Further information may take place to deal with corporate governance issues, to establish confidence to suppliers and customers or it may be related to matters within the industry... If there is no information the truth or the truth according to the firm, would never come out. I believe that the listed companies know that their growth prospect is the key to success, which should be clearly and intelligently communicated. That is true for the whole range of the business environment, from the capital to the labour market...*' (Director E, 05/04/00).

10.4.2 Perceptions of Costs

It seems that there is a variety of costs associated with voluntary disclosure (Table 10-5). The most frequently cited were costs of competitive disadvantage (15/15, item 1) and costs of collection and processing of information (10/15, item 2).

Table 10-5: Perceptions on Costs of Voluntary Disclosures

Costs	Directors (7)	F.Analysts (3)	Auditors (5)	Total (15)
1. Competitive Disadvantage	7	3	5	15
2. Costs of Gathering, Processing and Disseminating information	5	2	3	10
3. Costs of Publication	3	1	2	6
4. Claims from Employees	2	0	1	3
5. Intervention Costs	2	0	1	3

Competitive disadvantage (item 1) was regarded as being the major constraint for voluntary disclosure. While some managers expressed different views on disclosure areas, particularly costly items were perceived to be forward-looking information, information on innovation (technical or managerial), new market targeting and planning of new products. Narrowly defined segmented disclosure, cost factors, information about short-term liabilities, future capital expenditure plans were also suggested by interviewees as being proprietary and rarely disclosed. Information on the general corporate strategy, or strategy in specific areas (e.g. marketing, finance) are also perceived to be proprietary; however the way they are disclosed reduces potential costs.

The cost related to production of voluntary information (item 2) is also a significant factor that deters disclosure. There is some disagreement on the cost of certain items. That tends to depend on the corporate characteristics, the industry, the degree of

organisation and the efficiency of corporate information systems. However, items relating to segmented information, employee information, value-added information were identified as being the most costly. There is also information which is perceived to be of low net cost. This is information on products, operations, financial highlights, financial ratios and in general of corporate profile. Social responsibility information is seen as costly but of particular benefit. Six participants considered publication costs (item 3) significant to deter disclosure. Claims of employees (item 4) were suggested by three participants where two of them linked this item with other issues related to labour and corporate relations. Finally, possibilities of intervention by regulators (item 5) were considered of low importance (3). It has been mentioned (chapters 3 and 9) that pressure from state authorities in terms of accounting disclosures has been particularly weak. However, one auditor suggested that in the Greek disclosure practice some voluntary disclosures could have caused proprietary costs and that may be a reason of non-disclosure.

> '*...there are some accounts that may look almost of no cost to be disclosed or analysed. However companies do not publish segmented information here...That is because in some of these accounts companies make use of creative accounting...these accounts may be limited due to the existence of the accounting plan. Establishment and initial installation expenses or sundry debtors may be some of them...So if there is something strange there, there is no disclosure because that may lead to problems with authorities, bankers and all users of accounts ...*' (Auditor B, 31/03/00).

Overall, the interviews suggested that voluntary disclosures follow some cost-benefit analysis which may not be especially sophisticated. While the most important benefits were considered to be increased reputation, accountability and market related benefits, the most serious constraints were competitive disadvantage and preparatory costs. Moreover, the rapid increase in importance of these issues during the last three or four years provides additional limitations in relation to generalisation. Although this discussion may cast light on the relative costs and benefits of voluntary disclosure, it appears that outcomes tend to be related to certain characteristics of the company, managerial perspectives and objectives or other company specific circumstances. Moreover, it became clear to the researcher that costs and benefits of disclosure are not unambiguous realities. Instead, constructs

such as increased reputation, accountability, competitive disadvantage are abstractions given meaning through selective attention and simplification and they are learned through experience and industrial conventional wisdom. An understanding of the relative cost-benefit perceptions may cast some light on the actual practice of voluntary disclosure in terms of extent and specific items of disclosure. It may also reveal grounds of speculation on the relative outcomes from an attempt to further regulate disclosure which was quite firmly indicated by the members of the CMC.

10.5 Use of Voluntary Disclosure in the Case of Greece

Empirical results (chapters 8 and 9) have shown that companies listed on the ASE provide voluntary disclosures which differ according to types and amongst different companies. Voluntary disclosure is neither self-determined nor a random process but depends on demands and potential for supply. Thus, a discussion on the use of voluntary disclosure may provide some indications about the relative demands and the way this information is anticipated by market participants.

Interviewees suggested that there is a wide use of voluntary disclosures by a variety of users although cannot be used by investors to make abnormal returns. Respondents emphasised the accountability function of disclosures since by disclosing information management gives report for the last year. Shareholders receive the annual report at the general meeting and they judge the management and they also ask questions. Furthermore, the annual report seems to be the only direct medium of communication from the management to shareholders, which makes its use of high importance. One director suggested that voluntary disclosure is also used by the employees, which in turn influences the content of the annual report. It became evident to the researcher that this employee function is more intense in some companies interviewed. Moreover, interviewees suggested that disclosures in annual reports are also used by other market participants, such as journalists, and various authorities and groups. Suppliers and customers may also demand and use these disclosures. That may be particularly true for new markets or multinational companies or companies that have a strong export orientation.

Interviews indicated that all financial analysts interviewed use these disclosures as a first step in their research. That is because they find some informative issues or because through the reading they '*...find issues they don't like or they like and they wish to learn the reason or they find issues they don't understand...*'(Financial Analyst A, 12/04/00). It has also been pointed out that an informative annual report signals a good image about the company and also these disclosures are regarded as being useful since they save time and resources from financial analysts. The relative use of these disclosures depends on the degree of sophistication of the financial analyst, attitudes and methods of analysis and also on relative knowledge about the company. Two financial analysts suggested that these disclosures are less appreciated when analysts follow a company for a considerable time.

It has been further indicated by the financial analysts and bankers interviewed that most of the time they have a list of information they wish to know before they take decisions. Initially they follow the annual report and consider on which level of information or other quantitative or qualitative areas they should ask information in private meetings. That is further discussed in 10.7.

Furthermore, these disclosures are used sometimes by management to confirm or deny information that has been previously released and may have been used by investors, shareholders and other market participants. Considering the nature of the annual report this confirmatory role is important. That is also used because financial analysts intimated that they keep track of annual reports in order to evaluate the management. One financial analyst (Financial Analyst B, 12/04/00) indicated that there is always some systematic comparison of the new disclosures against old ones. Where there is disagreement, that is perceived as a bad sign for the management when it is not related to external unforeseen factors. That may be particularly true for forward-looking information disclosed in the past, which reveals that the management either was not entirely honest or else they planned badly, both of which are viewed negatively by the market.

Overall, interviewees suggested that the primary users of voluntary disclosures are current and potential shareholders and financial analysts. That provides some strong market orientation and may help explain the relative structure and context of related disclosures. The nature and extent of voluntary disclosures seem both to influence and be influenced by the market. Voluntary disclosures are used for accountability and decision-making purposes. Moreover, their relative use by a wider group of market participants suggests that the user-demand function is not driven in one direction. Information in annual reports may be late compared with other channels of information but it is perceived to be credible (10.6) which increases its value and its relative use. Considering the relative lack of regular releases of corporate media other than annual reports or their low sophistication, disclosures in annual reports are particularly important. The use of voluntary disclosure will also be assessed in relation to the credibility and alternative media of information discussed in the following sections.

10.6 Credibility of Voluntary Disclosure

It is beyond the scope of this research to examine the correctness of information in the annual reports because it was not logically feasible to examine internal corporate records. However, a discussion of the credibility of voluntary disclosure is essential in order to assess their intrinsic value. That may also provide explanatory grounds on the extent, nature and categories of disclosure. It may also provide further insights into the current financial reporting system.

Interviewees indicated that the credibility of voluntary disclosures follows the credibility of mandatory disclosures. Table 10-6 shows that most of the respondents perceive disclosures to have high credibility (13/23). Moderate credibility was expressed by seven participants. One regulator and two non-big five auditors perceived low credibility in accounts. The range of opinions on the credibility of disclosures was ranked according to the occupation of respondents. While six directors expressed a view of high credibility, regulators and auditors were less enthusiastic.

Table 10-6: Perceptions on Credibility of Voluntary Disclosure

Credibility	Directors (7)	F. Analysts (3)	Regulators (5)	Auditors (5)	Bankers (3)	Total (23)
High	6	1	2	2	2	13
Moderate	1	2	1	2	1	7
Low	0	0	2	1	0	3

In particular the views of the auditors were very intense. That is because all respondents related the credibility of the accounts to the liberalisation of the auditing profession and its consequences, both of which remain a long and controversial debate in Greece (see 3.7.1). The majority of directors and only two auditors belonging to the big-five companies (see the following comment), argued that the credibility of disclosures is of the highest possible. However, some of them mentioned that there may be some problem areas i.e. information subject to manipulation.

> '*...I think that disclosures overall are credible. Auditors pay attention to that. Of course there are some parts which are not audited like the prospects of the company. But there is no any reliable method to audit that. However, I believe that since the liberalisation of the auditing profession things are better and that has an impact to all accounting issues from measurement to disclosure. There are still problems but the credibility is quite high...*' (Auditor A, 10/04/00).

Bankers confirmed that although information is of a high standard they always have some further audit before serious decisions taken. That is because banks can also impose their preferences on the decisions of external auditors in companies seeking finance. Bankers also suggested that they trust the auditors' report and the management but they rely mainly on their own experience in dealing with corporate accounts. However, they pointed out that they have been more careful in terms of credibility of accounts since the liberalisation. Many examples of known listed companies were cited by all respondents. Particularly caustic, on the credibility of accounts, was the view expressed by one regulator, an especially influential individual for Greek accounting, who was opposing the auditing liberalisation:

> '*...I think that the credibility of the disclosures is highly dependent on the audit process.... Disclosure is to reveal internal related procedures. If these are not audited adequately there is doubt about the whole range of*

accounting information. In my opinion the reliability of information is synonymous to adequate audit. I believe that the real audit has died since the liberalisation of the profession.... If you have a health or legal problem you go to the best doctor or lawyer. The best auditor in Greece, nowadays, is the one who gives the least possible remarks in his report...' (Regulator A, 05/04/00).

Thirteen respondents stated that credibility is sufficiently satisfactory although they expressed some concerns about the reliability of some accounts and saw room for improvement. They all expressed the view that non-compliance with the law in terms of disclosure occurs rarely and relates only to items of no significance. With regard to the credibility of voluntary disclosures, other market participants expressed diverse views. Financial analysts stated that the credibility of the disclosures is based on the quality of the management. The auditors' signature is still important but ranks more highly when there is little knowledge about the management. Moreover, it became clear that any net benefits that companies may gain through voluntary disclosures might be eliminated when these disclosures are not credible. Moreover, many respondents indicated that there are additional (market related) issues linked to the credibility of disclosures.

'...I know that disclosures are credible, or credible enough because I know the management of the companies I am dealing with. I have been following these companies for years. After some time I get everything for granted because I don't see any reason for them to start lying out of a blue moon... My experience drives me most of the time. My views are based on the auditor's report if I do not know the management. If you know how to read sometimes you understand a lot...I believe that the credibility of disclosures is checked by the market after all. Some company may lie once or twice but then I don't trust this company at all. I don't deal with this company any more because I get furious... And I strongly believe that one may deceive the market once but the market always takes revenge, and overall is dishonesty which is going to suffer the consequences...' (Financial Analyst A, 12/04/00).

The overall conclusion was that companies may overstate some disclosures but they do not usually make untrue statements. That is because there are litigation costs (although some indicated the Ministry of Commerce and the CMC are not very

active here[61]), the market anticipates unreliability and ignores these disclosures, making them costly to the company, it is unethical and it creates rather than solves problems. Although the credibility has been suggested to be high, the extent of it is a thorny area which belongs in the same agenda as the credibility of the financial reporting overall. The issue of credibility of disclosures is particularly complex in the context of Greece since it is related to the implications of the current liberalisation of the auditing profession, which are not clear yet, the impacts of tax law[62], the weak supervision of the CMC, the general underdevelopment of accounting, enhanced market pressures, and managerial attitudes.

10.7 Alternative Channels of Voluntary Disclosure – Private Disclosure

Although this research is concerned with voluntary disclosures in annual reports a brief interview investigation in other channels of disclosure is important in order to understand further issues related to the extent and actual operation of voluntary disclosure.

Although there are many channels by which listed companies provide voluntary disclosures (e.g. public announcements, corporate bulletins; see 5.2), interviewees suggested that the prospectuses to raise finance, and private disclosures are considerable for the case of Greece. That is because many companies raised finance during 1995-1997 and so many prospectuses have reached market participants. Although there is extensive information included, the release of this prospectus occurs at only one point in time which provides obvious limitations for this medium. Interviewees also suggested that private disclosure is dominant compared with public disclosure. It was suggested that there is a complex interrelationship between public and private disclosure. That is the main reason private voluntary disclosure is briefly discussed here. Furthermore, such a discussion provides a view of the extent of

[61] Interviews with senior members (directors) of the Ministry of Commerce (13/04/00) and members of the CMC (25/04/00) revealed that corporate disclosures are assumed to be credible, reliable and correct after the audit. There is no further audit or control.

[62] Many interviewees suggested that the first factor that distorts the credibility disclosures is the tax law and the particular Ministerial Decisions taken.

voluntary disclosure and casts light upon the nature and the types of public disclosure. There is a variety of associated issues (e.g. availability of information and trading behaviour or inside information) which are beyond the scope of this discussion.

Interviews with directors and financial analysts indicated that private disclosure takes the form of group presentations, telephone communications and face-to-face meetings. Listed companies tend to use these channels to communicate information which is not publicly available and may be price sensitive. Interviewees suggested that many firms do not disclose publicly some information either because of market failure or because they do not expect material benefits. Information related to competitive advantage (e.g. innovation information, segmented information, future acquisitions) is particularly the case here where companies prefer to provide some further aspects using the private medium. Alternatively, the regular provision of some information in private may provide less scope for public disclosure.

> *'...We cannot devote time and effort to disclose everything in public...there is no scope...sensitive information is communicated differently...We have a policy of group presentations and private meetings as well. We are open to the public as well but obviously financial analysts are key factors for a favourable share performance. We discuss many aspects in these presentations.... We answer questions but they tend to ask questions that cannot be clearly answered... We also have some channels with some analysts that have been built during the time and there is some trust. We tend to disclose more information there... This channel is not so formal. That takes the form of telephone communication. I think it is very beneficial, particularly when institutional or foreign investors are included... Good communication with investors is important since investors may find sound reasons to buy or keep our shares which helps the share price and also the profile of the company...'* (Director A, 30/03/00).

Furthermore, interviews with bankers suggested that private disclosure is particularly strong here. Banks that traditionally have a pre-eminent role in the Greek financial system tend to demand and receive substantial information in order to make decisions over short- or long-term finance. This information is quite extensive and refers to further analysis of some accounts (e.g. segmented disclosures, cost factors,

short or long-term liabilities) and further quantitative or qualitative information (e.g. cash flows, productivity, investment plans, forward-looking information). Private voluntary disclosure has also been suggested to be higher where there is excessive or institutional ownership. The view is widely held that managers gain from inside information in the emerging markets. However, it has been suggested that, considering the small size of the Greek market, managers avoid this practice because they lose reputation and they are also severely penalised. Companies also follow codes of good practice which was explained by two directors. Private disclosures may also be conducted to explain technical matters or to fulfil other objectives.

> *'...I guess that public documents are not good at explaining sensitive issues that sometimes are quite controversial. For example the way sales are increased or costs are reduced is a very broad issue... Some issues are so technical that they cannot be easily communicated in formal documents... Moreover, personally I would like to hear the voice of the manager explaining that or have eye-contact with the people and the company in which I risk my career... I believe these discussions have benefits for the companies as well since they get feedback benefits... Companies get tip offs about rivals, the industry and also get feedback about themselves. These help them, at least, to improve their information strategy...'* (Financial Analyst C, 17/04/00).

It was evident from the views of the respondents that a part of the voluntary disclosures published in the annual report is prepared according to the demands of financial analysts in private disclosure *('...if 10 financial analysts ask me for the same information I may include it in the annual report so I don't have more telephone calls... some analysts ask me whether I include my views in the annual report in order to judge their credibility...' Director A, 30/03/00).* The interviewees suggested that financial analysts play a crucial role in the way voluntary disclosure is shaped and published. Price sensitive information communicated by this medium may provide some explanations about the extent of voluntary disclosures in annual reports, apparently financial disclosures. It seems that once a listed firm has a good public information policy it perceives that any further disclosure provides no value added and private disclosure takes over. From this point of view, it could be concluded that voluntary disclosure in annual reports may be conducted up to the point that satisfies external demands or meets market benchmarks of adequate

information and provides further incentives for private disclosure. This could be looked on as an equilibrium of information expected to be found in annual reports by market participants with expectations of additional disclosure through other media. Thus, financial analysts, creditors, institutional or large shareholders may expect some information in annual reports knowing they would get some in private. Small shareholders may expect further information in general meetings, employees from managers at work.

Overall, interviewees suggested that private and public disclosures increased rapidly during 1995-1997. Companies provide materially more information in private disclosures compared with the limited voluntary disclosures provided in annual reports. Companies seem to keep the private medium open for those (e.g. financial analysts) who believe them to be beneficial when they are well informed. Companies sceptical in providing extensive public disclosure at any request are more inclined to provide private disclosure when they are convinced there are sound reasons for doing so. That may explain the reason for companies not providing annual reports at an initial request, while they were willing to voluntarily disclose information in private. That preferential policy seems to impact on the extent and categories of voluntary disclosure. Proprietary information may not be disclosed in public when the private medium selects the receivers of this information and also provides obvious benefits.

Moreover, the anticipation by the management that financial disclosure will be disclosed in private provides fewer incentives for communicating sophisticated financial information through annual reports to less sophisticated users. Thus, voluntary disclosure has been partially used to improve the market's interest for the company, which in turn may take the form of higher private disclosure. Companies may provide the same form of disclosure to these two different means of disclosure. However, the level of information is different. This opportunistic form of disclosure has been explained by legitimacy in studies of private disclosure (e.g. Holland, 1998). Thus, voluntary disclosure in annual reports may be used in order to demonstrate consideration of the accountability function, response to market

demands, and good communication practice. That also serves to legitimate private discussions and disclosures.

10.8 Nature and Operation of Voluntary Disclosure

The discussion in chapter 5 concluded that the definition of voluntary disclosure is not always straightforward and that has led to different approaches in prior research studies. That may be particularly true in emerging markets where the regulatory system may lack stringency of supervision or clarity in regulatory provisions. While it has been suggested that companies comply with the law (Table 10-7), lack of clarity in regulation may be the case in the Greek regulatory system. The purpose of this section is to discuss briefly the problems involved with the definition of specific disclosure areas, which raises issues of ambiguity. That may have further implications for disclosure issues and information efficiency.

Table 10-7: Perceptions of Disclosure Compliance

Disclosure Compliance	Directors (7)	F. Analysts (3)	Regulators (5)	Auditors (5)	Bankers (3)	Total (23)
High	7	3	4	4	3	21
Moderate	0	0	1	1	0	2
Low	0	0	0	0	0	0

A significant majority of the respondents (21/23) argued that there is high compliance with disclosure requirements (Table 10-7). One regulator and one auditor who supported moderate compliance referred to exceptional cases and disclosures of minor importance. The auditor stated that compliance of anything less than 100% compliance is not satisfactory. Respondents claimed that there are cases where the law is quite vague which raises problems of clarity and that leads to different interpretations by different companies or non-disclosure by others. This view was quite widespread amongst interviewees as seen in Table 10-8.

Table 10-8: Perceptions of Vagueness of Specific Disclosures

Vagueness of Specific Disclosures	Directors (7)	F. Analysts (3)	Regulators (5)	Auditors (5)	Bankers (3)	Total (23)
High	5	2	1	3	2	13
Moderate	1	1	2	1	1	6
Low	1	0	2	1	0	4

Vague provisions tend to be interpreted by minimum disclosure. It was also noted that there are few companies which disclose extensive information on these areas.

However, these areas are limited since the General Accounting Plan includes extensive regulation for information items.

> *'...I believe that the law is very abstract in some areas and companies tend to take advantage of that. So they disclose the least possible or nothing at all because they had never had any problem. The Ministry of Commerce or the CMC never rejected any disclosures or asked companies to reform them.... Since there is no pressure, it depends on companies and auditors to decide about it; we push them to disclose more, however the final outcome is not satisfactory...' (*Auditor D, 21/04/00*).*

These areas of disclosure ambiguity have been discussed in chapter 4.10.2. Respondents mentioned that one area of considerable ambiguity is corporate prospects, which is the area of forward-looking information. That has been indicated as an obvious shortcoming of the regulatory system.

> *'...I think that the law is not concrete in some cases. Corporate prospects is one of these cases. While the law requires this information which has a forward-looking aspect, it does not define what it actually means by prospects. So very few companies disclose enough, some say something, though the majority of the companies do not disclose anything... I believe something should change here because this is crucial information for all users...' (*Auditor A, 10/04/00*).*

Other areas of considerable ambiguity indicated were directors' remuneration and research and development information. The shortcomings of the law were also indicated by the regulators. They argued that some particular areas of information, and in general the prescription of the management report, may present shortcomings of the regulatory system.

The confirmed ambiguity in some regulatory provisions has a direct implication on the extent to which they are effective as mandatory requirements. The fact that there is no regulatory action against non-disclosure[63] makes these areas effectively voluntary. While ambiguity in regulation was confirmed by the interviewees, Auditor B expressed a different view. According to him, information prescribed by

[63] That has been confirmed by the respondents of ESYL, Ministry of Commerce and also the CMC.

the law is mandatory and companies not complying should be penalised. He expressed the view that non-compliant companies belong to the majority of the listed companies group and almost all non-listed companies. He stated that there is enough guidance in the market (books, proposals by auditing firms) to advise preparers. However, an examination of some of this proposed guidance by the researcher revealed that there is variation in this as well.

Table 10-9 indicates perceptions of the need for further regulation. That may reveal indirectly perceptions of existing regulation and also overshadows future trends. While other market participants tend to support the idea of further regulation, directors seem to be less enthusiastic. That may be related to the higher costs that companies face with further regulation. Regulators and auditors were particularly keen on the idea of further regulation. That was perceived to enhance further the uniformity of the financial system and also the comparability aspects of accounting in Greece. The respondent from ESYL argued that he did not anticipate any change because that would require the issuance of another EU Directive and it would refer to all domestic companies. However, respondents from the Ministry of Commerce and particularly the CMC were positive about significant changes in the immediate future. The CMC has current plans of actions to increase transparency in the capital market and it refers only to listed companies.

Table 10-9: Perceptions of Need for Further Regulation

Need for Further Regulation	Directors (7)	F. Analysts (3)	Regulators (5)	Auditors (5)	Bankers (3)	Total (23)
High	2	3	4	3	2	14
Moderate	2	0	1	2	1	6
Low	3	0	0	0	0	3

Overall, this section has discussed perceptions of problems of accounting disclosure when there is increased ambiguity in regulatory provisions. While compliance with disclosure requirements was stated as being quite high, ambiguity of regulation seemed to have implications in disclosure operation. The interviewees justified the initial anticipation that areas of high vagueness tend to have a voluntary aspect in the case of Greece. Further regulation to solve existing problems was suggested as

necessary by the majority of the respondents. Issues discussed here have implications for research designs and theoretical issues as discussed in chapter 5.

10.9 Operation of Voluntary Disclosure and Relevance to Research Findings

The purpose of this section is to gather further insights into the tested variables in the quantitative study. That is intended to provide some validation of research findings and their interpretation. This section analyses the way voluntary disclosure operates and its relative importance as viewed by influential individuals. Furthermore, this discussion also emphasises particular aspects of voluntary disclosure, pointing to certain peculiarities of financial reporting and building upon a broader understanding of Greek corporate reporting.

10.9.1 Perceptions of Tested Variables

Market participants appeared to hold the view that corporate size tends to be the driving factor of voluntary disclosure. The explanation offered was that large companies are well organised, have efficient accounting information systems, face lower information costs and have more capital needs. These companies tend to have more foreign operations and they also have more dispersed shareholdings. Therefore, it was suggested by interviewees that voluntary disclosure operates as a tool of both accountability and marketing. Other factors were also suggested:

> *'...large companies belonging in the blue chips group have a great capitalisation, relatively good marketability and they are interested in remaining blue chips because there are associated benefits. Moreover, these companies wish to differentiate themselves with companies that got listed almost by chance and they have had some good performance for some years, some bad performance in some others and they are used to having some fireworks of information in daily newspapers without a certain, steady and informative communication policy. Former companies, in other words, wish to say 'we are better and the future belongs to us'...' (*Banker A, 20/04/00*).*

Listing status was argued by three respondents to be important for reasons of enhanced market pressures, relative tradition of companies listed on the main market towards information issues and the relative limelight of these companies. One

financial analyst also argued that the main market is perceived to be of less uncertainty compared with the parallel market which influences further information issues. Dual language reporting was argued to reflect foreign activity, foreign shareholding, foreign financing, managerial attitudes, corporate objectives, image of the company and strong market pressures. Industry factor was also perceived as a reflection of particular characteristics within the industry. A strong *'follow the leader effect'* became evident through the interviews. However that effect was not necessarily relevant to the largest firm within the industry:

> *'...I think there are so many different reasons that justify the way some companies have good or bad information practice. I think the reputation of the company is such a factor. That is not necessarily related to the size of the company. That is true for financial reporting... There are companies, and I know names I can tell you, that are good at meeting their obligations to tax authorities, and in general they are good at public announcements, press releases, and in various disclosures including annual reports. We tend to follow these companies and to adjust our practices according to them. I have done it many times...it is better and inexpensive to follow a traced path...'* (Director F, 07/04/00).

While the perceptions of interviewees on the impact of size, listing status and type of report matched the research findings, perceptions on performance variables were more divergent. While three directors, one financial analyst and one auditor argued that they would have expected a positive relation between performance variables and disclosure, two directors and two financial analysts expressed the opposite view. Two financial analysts and one banker argued that they expected no association because the market has not reached this degree of development and efficiency to give grounds for such an outcome. They argued, however, that share return and profitability are the variables with the highest potential association. Financial analyst C further suggested that the divergent behaviour of companies that did badly or even well to disclose enough information for different reasons would probably distort any relevant conclusion. That was supported indirectly by two directors who argued that a bad performance provides scope for extensive disclosure in order to explain relevant reasons to shareholders and to the market. However, further interview investigation of bad news disclosure revealed that it is dependant on various factors:

'...As far as bad news is concerned, I think we would disclose it if only it would be learnt by the market or if it cannot be changed in the short future...I believe that if there is something bad which can be changed and is not very important and also the market cannot learn it on time, that wouldn't be disclosed...that also depends on the impact it might cause as well; for example a huge loss would be explained anyway because it is obvious, we would speak more than a minor loss actually. However, I am not sure there would be any disclosure on failure of managerial innovation...' (Director A, 30/03/00).

10.9.2 Perceptions of Disclosure Categories

Particular characteristics of companies or industries or managerial attitudes seem to play a more revealing role in some specific areas of disclosure. Corporate environment disclosures may provide such an aspect. Interviewees indicated that this type of disclosure is used by management to introduce the company or operations, and explain its performance and strategy. It also reflects various corporate objectives which are frequently relevant to the particular environment of the company. It was also suggested that this area of disclosure is the medium of '*corporate propaganda*':

'...we provide extensive information about the factors that influence the performance of the company and the general environment company operates...The company has the monopoly of (product X) and our suppliers are shareholders as well...we provide this analysis in order to explain to them that we pay 20% higher than the European average and we cannot increase the price of their supply, rather they should diminish their demands...moreover we have 80.000 shareholders and they should know about the particular reasons company has this negative performance...' (Director G, 09/04/00).

It was suggested that monopolies make active use of providing corporate environment information. Enterprises earning monopoly or oligopoly rents through the exercise of market power are likely to act differently from other firms since these companies may take all the appropriate measures to protect their power. It should be stated here that oligopolies in the case of Greece are not only the large state-managed listed companies but also multinationals which have oligopolistic market power. That is mainly because of technological and product innovation or it sometimes takes the form of brand recognition and heavy advertising. That may provide some further understanding of the significance of variables reported in this category, particularly corporate size.

It was suggested that social responsibility disclosures are a trend of recent years. Interviewees indicated that this operates both as a tool of accountability and as a marketing tool. Directors and financial analysts mentioned that companies tend to disclose employee information because they are emphasised as being an important asset and also because there was some indirect pressure from the unions. Two companies not providing employee information were mentioned as lacking a labour union. Moreover, three directors suggested that corporate history, or particular circumstances could have influenced these disclosures. Financial analysts and bankers claimed that they are interested in social responsibility disclosures for decision making, which is another pressure. However, one banker perceived these disclosures to be of low relevance. Companies in sensitive industries in terms of environmental issues, location or social aspects are also perceived to be more inclined to disclose social information. However, it was a common belief of all interviewees that the provision of social responsibility information is particularly poor but is expected to increase in subsequent years.

> *'...some large companies spend a lot of money on social responsibility and they have many reasons to advertise that. Information on employees shows some further commitment to these companies and it emphasises an important asset.... Some companies damage the environment and so they wish to show that they follow a very discreet policy, at first showing that they follow the law and they also go further which helps to calming down individuals or groups that are opposed.... Companies try also to follow business and local ethics.... Moreover competitors hang around for mistakes, if they see something wrong they will make a big fuss through the media which will cost money and image loss...'* (Banker B, 20/04/00).

While interview responses provided support for the quantitative study in the significance of corporate size, dual language reporting, industry and listing status, they questioned the significance found for volatility. One financial analyst and one director stated that they would expect such an association in the category of financial disclosure. However, one financial analyst and one banker associated the significance of volatility with the prestige and well-established status for companies providing such disclosures, which are companies of low volatility in the case of Greece.

Interviewees suggested that financial disclosures are an especially complicated area. That reinforces the lower explanatory power found in the quantitative study. Respondents argued that the role of these disclosures was to provide further analysis to mandated accounts and also to explain financial related areas. Directors mentioned that target groups are mainly the existing and potential investors. Thus, this area of disclosure has a strong market orientation and influence. It was also indicated that financial disclosure is the most costly and that is a main reason for its quality not being of a high standard. Moreover, strong interrelation with private information was indicated (see 10.7), which tends to influence the type and the extent of analysis. Two directors argued that some elements of this information are too sophisticated to be communicated through the annual report and thus other media are perceived to be more efficient:

> *'...Information is power and that is more true for financial information. Some shareholders have the view that revealing more makes me (finance director, thus holder of information) less powerful to deal with that... That is not true. When we don't disclose we don't actually hide. We just drive the information in channels we believe are better. That does not mean that this practice maximises my wealth and reduces the wealth of the firm. Simply these channels are more effective in terms of costs and benefits through my personal experience and also the experience the company. I refer of course to institutional investors.'* (Director E, 05/04/00).

While responses provided support for the findings of the quantitative study one financial analyst stated that the negative association for share yield cannot be representative for all listed companies, providing examples to support this assertion.

10.9.3 Non-Disclosure

While interviews provided many insights about the operation of disclosure that could not be captured by the direct observation of annual reports, they also revealed particularly important insights about non-disclosure. Non-disclosure appeared to be as complex as disclosure is, since it is influenced by a set of diverse factors. The discussion about the relative costs of disclosures (10.4), of which competitive disadvantage was perceived to be the most important, casts some light on this area.

However, the interrelation of factors such as secrecy, based on culture and accounting environment and also the particular structure of the economic system (traditional links with banks and private disclosure), provide further understanding about non-disclosure and in turn, about the actual extent of disclosure. Corporate directors mentioned issues related to the existence of unsophisticated readers as influencing non-disclosure. Moreover, director E stated his preference for a disclosure status quo. He added that disclosure or non-disclosure levels are influenced by a bargaining between auditors and management. Thus, the motives and independence of the auditors may influence non-disclosure. One financial analyst suggested that some of the explanatory factors of disclosure could also be explanatory for non-disclosure. He suggested industry and *follow-the-rival effect* to be one of some concern. These should also consider other issues like managerial attitudes, quality of management[64], corporate culture or market asymmetry:

> *'...I have heard directors saying 'they do not say anything about their plans or strategy. Why should I do that?'. Therefore, there is a game in which you don't disclose and I follow your practice. Thus, there is an industry effect even in the case of non-disclosure... I believe that the situation 'I know about you, you know about me' encourages further disclosure...'* (Financial Analyst A, 12/04/00).

The same analyst stressed the point that managers place a lower value on information than other market participants, especially investors. However, non-disclosure may be more difficult to research since it is always more difficult to research social behaviour which is not directly observable. Moreover, the relative lack of research designs complicates even further such a research endeavour. Non-disclosure might also be associated with timeliness of accounting disclosure since late disclosure may be similar to a situation of non-disclosure.

Overall, respondents expressed views on the complexity of voluntary disclosure operation in the context of the Greek capital market. That provided further insights

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[64] Quality of management may be a significant factor in terms that high quality managers are more confident about themselves and probably less secretive about disclosing information which may impact on share prices and the human capital of the managers.

into associations of disclosure with corporate characteristics, which are particularly important for better interpretations of research findings. Respondents also commented further on variables that were found to be significant by the quantitative study. That took the form of comments on overall and categories of voluntary disclosure. While responses supported most of research findings, they also questioned some others. Interviews also indicated relative characteristics and peculiarities of the financial reporting system in reference to their influence on voluntary disclosure. It also became evident that for the extent of voluntary disclosure to achieve better understanding, considerations of non-disclosure should be made.

10.10 Relevance to Understanding Theoretical Models and Design of Research Frameworks

The purpose of this section is to report on insights from interviews in order to provide a better understanding of the theoretical frameworks used by this study and they relate to information issues in the Greek context[65]. That builds on the debate of theoretical frameworks established in developed capital markets as well as applying in emerging markets, as evidenced by the case of Greece. Moreover, it aims to discuss issues derived from interviews, related to research designs in accounting disclosure.

10.10.1 Insights for Theoretical Models

The agency framework was considered by the respondents to be of some limited relevance, because of the family ownership of a large number of listed companies. One banker stated that the agency view might be more appropriate for the companies belonging in the high capitalisation group of the listed companies. Moreover, the view was expressed that it would be more applicable in the future as a consequence of the changes taking place in the capital market. Respondents argued that there is a strong accountability function associated with voluntary disclosure which becomes enhanced considering the limited sophistication on issues of corporate governance.

[65] It should be noted here that questions on theoretical frameworks took two different stances. While they were straight forward to bankers and financial analysts and two regulators who had theoretical background (all of them hold postgraduate degrees) other respondents were asked in an indirect way.

Signalling was particularly questioned by financial analysts and bankers. That was due to lack of corporate and market organisation and efficiency, and to established corporate disclosure practices. Financial analysts argued that signalling effects might be an established practice only for a small group of listed companies (10%) but it could hardly be imagined for the whole group of listed companies. Signalling was perceived to take place more with dividend announcement, stock splits and stock repurchases rather than performance related functions. Moreover, interviews with financial analysts indicated that no news is not necessarily perceived as bad news by the market. A particularly revealing aspect of disclosure was pointed out by a financial analyst who argued that bad or good news or accounting for bad or good performance may be directed in different disclosure areas, for particular reasons. That emphasises the proposition of Meek et al. (1995) that voluntary disclosure should not be looked as an amorphous group, which has been adopted by this research study.

Capital-need theory was perceived to be of high relevance by all respondents. That was thought to hold for the period after 1997 where the market experienced rapid expansion. Interviews with directors revealed that legitimacy might have some relevance. That may be particularly true in specific disclosure categories such as social responsibility. Interviewees indicated political costs to be of weak relevance. Interviews with directors, auditors and regulators suggested that governmental interference is perceived as being unlikely to occur as a result of disclosures in annual reports. However, that may depend on industry type, disclosure areas and corporate history. Hence, political costs should not be seen as homogeneous throughout the financial system.

Information costs were perceived to be of high relevance although there were different and opposing views amongst respondents when benefits and particularly costs were discussed. While respondents, especially directors, suggested that competitive disadvantage costs are the major constraint for voluntary disclosure, one

financial analyst pointed out that these costs may be overstated in the Greek case. Secrecy has been suggested as being the main reason.

> '*...I would like to say here that although the competitive disadvantage is a complicated issue sometimes it is just a myth. To begin with, that depends on the time of disclosure since things get known by corporate actions and the annual report comes quite late in the public domain. So some information becomes known anyway... In industries there are very few secrets. Rivals frequently have the same suppliers, customers or auditing firm, managers or employees who have working experience with rivals, get money from the same banks and there may be other sources of information like tax authorities or consultants or various market participants. So sometimes they deceive themselves by hiding information known by the market. Regulation could solve this problem here... However, the crucial point here is the extent because full disclosure would favour the big sharks in every industry...*'(Financial Analyst C, 17/04/00).

However, the perception is wide among directors that the firm would be severely damaged by these disclosures. That may represent cultural influences and has also some relationship with the traditional corporate practice where disclosures were withheld by directors and released only to bankers when companies sought finance. It has also been pointed out that this may still influence the information strategy of many companies. Therefore, some managers may '*...get afraid of the possible costs neglecting the relative benefits...*'(Financial Analyst A, 12/04/00). Another issue raised is that the fear of competitive disadvantage not only reduces the extent of disclosures but also influences their nature[66]. Interview outcomes suggested that costs and benefits tend to differ according to the industry, firm-characteristics, competition, corporate culture and managerial attitudes.

Interview outcomes may also relate to theoretical issues. Previous researchers (e.g. Ross, 1979; Grossman, 1981) view mandating disclosure as unnecessary since

[66] '*...there is some information which is held only for the management...for example, we may disclose that we import shoes from Middle East but we won't indicate the country or the supplier or even if we do so we would be silent about the contract...it is true that a great amount of information is known by the market, however the market is not like if one knows something everybody learns it and so we try to be as careful as possible...*' (Director F, 07/04/00).

companies will voluntarily disclose information. It seems that this may not be the case in Greece or probably other emerging markets, as evidenced by the low extent of disclosure in areas of ambiguous regulation. Although no complete and accepted theory justifying regulation of the information dissemination activities of firms is available, there is an indirect assumption that voluntary (market) mechanisms '*fail*' in producing desirable quantities or qualities of information about firms (Lev and Penman, 1990). That may be particularly true when there is enhanced secrecy in an accounting environment. This view that a market fails without adequate regulation and supervision is especially common amongst Greek regulators and auditors. Regulators explained steps for further regulation planned by relevant committees.

10.10.2 Implications for Future Research Designs

Interviews also gave insights into the design of better research frameworks. Interview findings indicated a diverse set of variables with potential explanatory power to voluntary disclosure. While many variables were proposed, ownership structure has been argued to be of some relevance, while quality of the management was suggested to be of particular importance in all information related issues. International, national, or industry specific experience, education, value orientations, attitudes on accountability and also psychological factors may impact on the quality of management.

Although the quality of management may be a particularly influential factor for the case of Greece it could not be operationalised since it depends upon many factors. In Greece there is a tendency for foreign working experience, education in foreign universities (English, French, German and American) and there is also strong EU influence. Moreover, quality of management depends on individual characteristics which could be assessed by psychometric tests. Thus, although quality of management appears to be a particular consideration it was too complex and difficult to be operationalised. Moreover, interviews indicated that operationalisation of this variable may be even more complicated in cases where disclosure decisions are defined as group decisions.

The interviews indicated the importance of looking more carefully at variables associated with the corporate culture and tradition, internal politics or corporate history as particularly influential factors. However, interviews further indicated the relative difficulty of quantifying these factors, particularly in a cross sectional study. Finally, particular corporate or managerial objectives, the extent of international transactions in Western countries, and the provision of consultancy and advisory services were also suggested as being important in the context of Greece. Institutional characteristics were also mentioned as having particular importance, although more appropriate to time series models.

Furthermore, interviews suggested the importance of considering measures of performance variables. It was proposed that disclosure might be influenced by the performance at the time the annual report is prepared or by corporate anticipation of next year's performance. Although the quantitative study has tested current year and relative measures of performance, the proposed association indicated a need to research further how measures of performance variables are associated with the extent of disclosure.

> *'...companies that do well provide information because they are happy with themselves. So they refer to their performance and to their strategy in broad terms and in issues that emphasise how good they are. Companies that did badly speak about factors that influenced this performance but they are outside the company like the adverse national or international environment. I believe that companies that have incentives to say more are companies that did badly but they expect to do well next year. So they wish to send this message to the market 'look there were some reasons we did badly last year and we have been punished by the market, these reasons are absent now and so count on us...'* (Financial Analyst A, 12/04/00).

Finally, interviews indicated the importance of combined research designs that may provide better understanding of the disclosure behaviour. That was suggested to be the case for private disclosure that interacts with public disclosure. Moreover, timeliness was also suggested to be taken into consideration in a combined model with accounting disclosure in a procedure to approach better disclosure adequacy.

Other research areas, such as non-disclosure, were also proposed to enlighten further disclosure issues.

10.11 Summary and Conclusions

This chapter has considered issues pertaining to voluntary disclosure in the Greek capital market as indicated by the opinions of producers and users of information and of people influencing information issues directly or indirectly. The interview findings gave insights on the influence (10.3), related costs and benefits (10.4) and use (10.5) of voluntary disclosures, as well as on the credibility (10.6), alternative channels (10.7), the nature (10.8) and the operation (10.9) of these disclosures. Interview research was also directed in order to gain better understanding of theoretical models as they are approached by the perceptions of respondents (10.10). Thus, it could be claimed that interview outcomes have also taken the form of approaching some limitations of the quantitative study. The interview findings suggest that disclosure behaviour is more complex than it was previously assumed by the quantitative study. The existence of a particularly broad set of influential dimensions, issues related to demands and potential for actual provision of information, particular interrelationships with culture and regulatory characteristics, impacts derived from the relative credibility of these disclosures and especially the shape private voluntary disclosure has taken in Greece, provided insights into the complicated interactive procedure of voluntary disclosure.

Insights from 10.3 and 10.4 attained the first interview objective. Interviews revealed that in the case of Greece voluntary disclosure is influenced directly or indirectly by interrelated factors, which are environmental and company specific in nature (10.3). Although some corporate variables tested in the quantitative study of this thesis were suggested by interviewees to have strong or weak influence, the efficiency of information accounting systems, the quality of the management, institutional characteristics, internal corporate politics and history antecedents were put forward as being particularly influential. Interviewees also indicated that issues relating to operation of private disclosure and implications of auditing liberalisation were important in voluntary disclosure.

Interview questions on costs and benefits (10.4) associated with voluntary disclosures confirmed that market pressures are the main factors encouraging voluntary disclosures. While increased reputation, capital-related incentives and accountability purposes were seen as strong driving forces of disclosures, competitive disadvantage and preparatory costs were suggested as being the most important constraints of disclosure. While interviewees overall expressed the view that some cost-benefit analysis tends to underlie the disclosure mechanism, some expressed doubts about the relative sophistication of this analysis. A broad consideration of cost-benefit aspects of the disclosure mechanism may provide insights into the practice of voluntary disclosure in terms of extent and mainly categories of disclosures. Cost-benefit considerations also provide some speculation over the regulatory action that is expected, as evidenced by interviews with regulators.

Sections 10.5, 10.6 and 10.7 contributed in answering the second interview objective. A discussion of the relative use of voluntary disclosure provided some indications about the relative demands and also about the way this information is anticipated by the market (10.5). While respondents emphasised the use of these disclosures by a wide range of market participants, they suggested voluntary disclosure to be associated with accountability and decision making functions. That provided a strong market orientation. Not surprisingly, the relative use of these disclosures was also related to the lack of relevant credible media and as a precursor to further disclosure using private channels.

The credibility (10.6) of voluntary disclosures was approached to assess the intrinsic value and operation of these disclosures. While the credibility of voluntary disclosures was suggested as following the trend of mandatory disclosures and to be relatively high, interviews indicated the sensitivity of this area in the Greek context since most respondents related the credibility of disclosures with the reliability of the auditing process and the liberalisation of the auditing profession. Companies were perceived as overstating some specific aspects but not so far as to provide false

information. Interviews indicated that credibility aspects were of particular consideration and complexity in the case of the newly expanding capital market where many institutional changes had recently taken place.

Interviews were also directed at exploring the relative interrelation of private and public disclosure (10.7). The dominance of private disclosure supported the assertion that secretive countries may have developed business and financing relationships that encourage direct, private interactions (Radebaugh, 1975). A principal aspect is that proprietary information or price sensitive information is communicated through private channels and this appears to influence the extent and categories of published voluntary disclosures, apparently financial information. Thus, taking into consideration private disclosure, it was concluded that published voluntary disclosure may be used in order to increase the market interest in the company and to increase the potential for private disclosure.

Issues related to the definition of voluntary disclosure and the relative shortcomings of the regulatory system were also discussed (10.8) in attaining the third interview objective. Respondents indicated that areas of no clarity of provisions and lack of further guidance tend to become voluntary in practice since increased ambiguity leads very few companies actually to make disclosures. Lack of regulatory action or any associated penalty tends to justify attitudes of non-disclosure. Considerations on mandatoriness or voluntariness of information items, as discussed for the case of Greece, tend to have many implications for research designs.

Interviewees commented on the results of the quantitative study (10.9) contributing to the fourth interview objective. Overall, respondents validated the results of the quantitative study in terms of overall and partial indices. However, they questioned results related to performance variables. Interviewees also indicated the need to regard voluntary disclosure not as a homogeneous collection but as a group of heterogeneous disclosure areas. That is because companies may attempt to meet different objectives with these types of disclosures. While corporate environment disclosure was indicated in relation to an accountability function, capital market

directions and as a tool of corporate propaganda, social responsibility acts as an accountability and marketing tool. Financial disclosure has a stronger capital market orientation. Aspects of non-disclosure were also indicated for particular consideration in order to appreciate better the extent and categories of disclosures.

A point of particular importance for the future is that steps for achieving a higher quality of financial reporting were explained both in corporate and regulatory levels. Therefore, the extent of voluntary disclosure is expected to be altered, probably improved, in the near future depending on the new regulation. The interviews gave also guidance on further research in this area (10.10.2). More sophisticated proxies for the variables used, the inclusion of other relevant variables, the consideration of issues crucial for particular markets, the interrelation of alternative ways to disclosure that influence actual practice and stronger research designs should provide clearer insights into the operation of voluntary disclosure. Moreover, in answering the fifth interview objective insights into theoretical frameworks were also discussed. While capital need theory and information costs were considered of direct relevance, signalling was considered to be of lower usefulness. Agency and political costs were considered of some limited relevance. Finally, legitimacy was considered to have some relevance.

The limitations of opinion research at this stage should be recognised. There may be limitations associated with the interview procedures. Interviewees may have been willing to discuss disclosure aspects but nevertheless they might have been sensitive in certain issues either choosing not to reveal or providing a partial picture of the situation. That may probably cast themselves or their organisation in a socially accepted role. That provides some bias. Although the interviewees have been carefully selected they represent a small part of market participants, probably indicating best practice. Thus, another issue arising here may be the generability of the findings. The limitations of the scope of these interview data did not permit a further quantification of these outcomes in relation to the previous results of econometric tests.

CHAPTER 11

11. Summary, Implications, Contribution, Limitations and Suggestions for Further Research

11.1 Introduction

The purpose of this chapter is to summarise the objectives, questions and approach (11.2), the main research results and conclusions (11.3) and to explain the main implications emanating from them (11.4). Moreover, the presentation of the main contribution (11.5) implied by meeting the objectives of the research, in relation with the associated limitations (11.6) is intended to present a more complete and overall assessment of this study. Issues of particular interest which are raised by this study are discussed as suggestions for further research (11.7).

11.2 Summary of Objectives, Questions and Research Methods

This section summarises the general and specific research objectives, the empirical research questions and the research methods applied by this study.

11.2.1 General and Specific Research Objectives

The general research objectives, as presented in 1.2, were the following:

1. To make a contribution to the literature of disclosure in emerging capital markets on the applicability of disclosure theories.
2. To make a contribution to the nature and definition of voluntary disclosure.
3. To make a contribution to understanding voluntary disclosure behaviour.

The main approach to meeting these objectives is described as follows:

i. Theories of disclosure were reviewed and their applicability to emerging markets was discussed (chapter 2). Greek institutional characteristics related to these were discussed (chapter 3). Theories formalised the research hypotheses to test (chapter 6) by univariate and multivariate analysis (chapter 9). These theories were also evaluated by interviews (chapter 10) in order to assess their usefulness in an emerging capital market based on the perceptions of market participants.

ii. The nature and definition of voluntary disclosure was investigated by analysing a set of empirical studies to examine relative differences and similarities (chapter 5). Contextual definitions were provided. Definitions were critically discussed to enlighten research approaches. Moreover, conceptual and operational definitions were employed to bridge theoretical and empirical levels discussed.

iii. The operation of voluntary disclosure was investigated in order to detect influential factors. Quantitative and qualitative research was employed to gather insights into the operation of voluntary disclosure in an emerging capital market.

The specific objectives of this study, as reported in 1.3, were the following:

a. To investigate the extent of voluntary disclosure provided by Greek listed companies in their annual reports as indicated overall and by categories of voluntary disclosure practices.

b. To provide empirical evidence on the relative associations of company characteristics and the extent of voluntary disclosure.

c. To explore the perceptions of influential market participants in matters of accounting reporting issues in Greece in order to provide further insights on the operation of voluntary disclosure.

These objectives were met by an exploratory study of voluntary disclosure practices in annual reports, statistical testing and interview research.

11.2.2 Empirical Research Questions

The empirical research questions of this study (1.4) were the following:

1) What is the extent of voluntary disclosure?

2) Is there a significant association between voluntary disclosure and company characteristics on the basis of expectations derived from prior research and theoretical models?

3) What are the perceptions of market participants to issues related to voluntary disclosure operation and how do these help in understanding the quantitative results of this study?

These empirical research questions were examined in chapters 8, 9 and 10 respectively.

11.2.3 Research Methods

The main research methods employed by this study were the following:

- Voluntary disclosure index
- Unweighted scoring method
- Univariate and multivariate analysis to test hypotheses
- Semi-structured interviews.

The explanatory variables tested for association with voluntary disclosure were seven continuous variables, namely corporate size, gearing, profitability, liquidity, marketability, volatility and share yield. There were also three categorical variables, namely industry, type of report and listing status (chapter 9).

11.3 Main Research Results and Conclusions

The main research findings and conclusions are presented according to the objectives of this research. The contribution to understanding voluntary disclosure behaviour (objective 3) is discussed based on the quantitative and qualitative empirical results and conclusions. The contribution to understanding the nature and definition (objective 2) is mainly related to the empirical understanding of voluntary disclosure. Finally, the contribution on the applicability of theories of voluntary disclosure in emerging capital markets (objective 1) is discussed based on the theoretical proposition, critique and empirical findings. These are discussed in this section following a reverse sequence since the discussion of the empirical results provides grounds upon which the applicability of theories may be assessed. These are as follows:

- Behaviour of voluntary disclosure, discussed as behaviour indications based on the quantitative study (11.3.1) and behaviour indications based on the qualitative study (11.3.2).
- Nature and definition of voluntary disclosure (11.3.3).
- Applicability of disclosure theories (11.3.4).

11.3.1 Behaviour Indications Based on the Quantitative Study

Quantitative results are discussed as follows:

i. Associations between current year company characteristics and voluntary disclosure (11.3.1.1).

ii. Type of report and associations between company characteristics and voluntary disclosure (11.3.1.2).

iii. Associations between relative company characteristics and voluntary disclosure (11.3.1.3).

11.3.1.1 Associations between Current Year Company Characteristics and Voluntary Disclosure

Association between 10 company characteristics and voluntary disclosure, as measured by overall and categories of voluntary disclosure, were tested by univariate and multivariate analysis (chapter 9) to shed some light on voluntary disclosure behaviour. Univariate analysis showed overall voluntary disclosure to be significantly related to size, type report, industry factor and listing status. There is also some association between profitability, share yield and overall voluntary disclosure. Although univariate analysis provided some direction of associations with voluntary disclosure, multivariate analysis was employed to cast further light on associations. Multivariate analysis showed that overall voluntary disclosure is significantly associated with size, type of report, listing status, industry and share yield (9.4.1).

Categories of voluntary disclosure were investigated by univariate and multivariate analysis. Results between the two types of tests were not materially different. Multivariate analysis indicated that corporate environment information was significantly associated with type of report, corporate size, listing status and industry factor. Social responsibility information was found to be significantly associated with corporate size, type of report, listing status, industry and share volatility. Finally, financial information was found to be significantly associated with corporate size, listing status and share yield. Interpretation and conclusions were provided for research findings (9.4.3).

This analysis shows that that there are systematic associations between particular factors and the voluntary disclosures issued by companies listed on the ASE. That

also applies for the three categories of voluntary disclosure of information. It appears that there are different factors influencing these categories, probably related to different degrees of desirability by the users. The results revealed that the significant independent variables vary across information categories which in turn suggests that there are different explanatory factors across information categories, and different usefulness of theories. That may suggest that voluntary disclosure should be researched as a heterogeneous group rather than as a mix of similar behaviour which has been assumed by prior studies. Overall, it is found that the extent of association with each of these variables meets expectations in the separate categories of disclosure based on previous empirical work.

Overall, this analysis supports the operationalisation of variables which may be country specific and may be applicable only in markets with similar characteristics (e.g. type of report) as explanatory factors of voluntary disclosure operation. Moreover, this study provides some support about the importance of market related variables (e.g. market capitalisation, share yield) which have been suggested to be of particular interest in voluntary disclosure behaviour. Results were more alike with prior research studies in emerging markets indicating that voluntary disclosure in Greece may operate in a similar way to that found in emerging capital markets rather than developed capital markets.

11.3.1.2 Type of Report and Associations between Company Characteristics and Voluntary Disclosure

In the light of research findings on the relative importance of type of report as an explanatory factor of voluntary disclosure, some further analysis was undertaken (9.5). Companies using a Greek language only annual report and companies using dual language reporting were investigated for voluntary disclosure practices, using multivariate analysis. Eight independent variables were tested for association. Research findings indicated that there are different factors influential on voluntary disclosure practices between the two groups. Those companies reporting using dual language reporting seem to be influenced by factors indicating strong market pressures (market capitalisation, and share yield) while voluntary disclosure of those

companies reporting only in Greek tend to be influenced by more diverse factors (industry, listing status, volatility and liquidity).

Interpretation of results indicated that matters related to strategic orientation, foreign operations, shareholding and managerial image, as they are expressed by type of report, influence the extent of voluntary disclosure. English language reports were found to influence the style and extent of voluntary information reported in Greek. Thus, the style and extent of report, as influenced by the decision to report in English, was viewed as an innovation by the Greek companies to overcome the traditionally secretive reporting practices or as an attempt by Greek listed companies to imitate disclosure practices similar to those of European or international companies. While the annual report presented only in Greek was viewed as a means by which the management meets its legal obligations towards the government and its shareholders, the annual report in Greek with an English language translation (dual language reporting) seemed to discharge better the stewardship relationship with shareholders and also to support a wider view of public accountability towards those who have reasonable rights. Market pressures were also viewed as being more intense in this category.

11.3.1.3 Associations between Relative Measures of Company Characteristics and Voluntary Disclosure

This research tried to find a different way to test signalling. Relative measures of performance variables (annual change) were tested by multivariate analysis to investigate whether measures that were argued to be more satisfactory by users are more relevant to capture signalling effects in voluntary disclosure (9.6). Regression models incorporating relative measures were compared with current year models. It was shown that models incorporating relative measures are of consideration since they report high fit of regression.

However, it was shown that they do not have any better performance in capturing signalling effects. The failure to find significant associations does not mean that signalling does not impact. Signalling effects might be more directly observed if an industry benchmark performance variable could be operationalised or probably if

performance of the next year could be related to voluntary disclosure. However, it would be expected that relevant associations could be country specific, relating to the efficiency and sophistication of markets, established trends in information utilisation and probably corporate culture. This study has opened an agenda where signalling effects which are often very complex and difficult to be conventionally interpreted could be researched and understood.

11.3.2 Perceptions of Market Participants on Issues of Voluntary Disclosure Operation

An interview study with influential market participants (directors, financial analysts, auditors, regulators and bankers) was conducted in order to gather insight into important issues related to voluntary disclosure operation. Issues that were discussed and analysed are relevant to the extent, and influential factors of, voluntary disclosure, use and credibility, nature and operation of voluntary disclosure and the behaviour of private voluntary disclosure. The main outcomes are briefly summarised as follows:

- Interviewees gave the opinion that the factors most influential on voluntary disclosure are: corporate size, institutional characteristics, quality of management, industry, internal corporate factors, listing status, market performance, profitability, ownership structure, liquidity and dividend policy. Interviewees also mentioned the relative complexity and interaction of these influential factors (10.3).
- Interviewees indicated cost-benefit analysis to be an essential element underlying voluntary disclosure. The most influential costs were perceived to be: proprietary costs, costs of gathering, processing and disseminating information, costs of publication, claims from employees and intervention costs; the most material benefits are: improved reputation-image, improved accountability to shareholders, market related benefits, improved relations with associated groups and accountability to society (10.4).
- Primary users of voluntary disclosure are current and potential shareholders and financial analysts. Voluntary disclosure is used for accountability reasons and decision making. Perceptions on credibility of voluntary disclosure enhance its value and relative use. The use of voluntary disclosure has a strong market related function (10.5).

- Perceptions of the credibility of voluntary disclosure are that voluntary disclosure is generally of high credibility since companies may overstate but they do not provide untrue information. The credibility of voluntary disclosure was an issue of particular complexity which referred to the liberalisation of the auditing profession, tax assessment and institutional characteristics (10.6).
- Private voluntary disclosure was perceived as being dominant in the case of Greece. Proprietary information and price sensitive information was found to be communicated through private meetings or telephone communication. That is particularly the case of financial information. Private voluntary disclosure was found to influence the extent and the form of voluntary disclosure communicated through annual reports (10.7).
- Interviewees indicated high vagueness of specific accounting regulation. That was suggested as providing high discretion to managers on disclosure areas. Further regulation was proposed as the only adequate policy for higher information efficiency (10.8).
- Finally, interviewees expressed views for voluntary disclosure operation which verified or questioned some research findings of the quantitative study. Issues related to non-disclosure and usefulness of disclosure theories in emerging markets were discussed and conclusions were drawn (10.9).

The interview findings indicated that disclosure behaviour is more complex than it was previously found by the quantitative study. The existence of a particularly broad set of influential dimensions, matters related to demands and potential for actual provision of information, particular interrelationships with culture and regulatory characteristics, impacts derived from perceived credibility of disclosures and especially the shape private voluntary disclosure has taken in Greece, suggest that voluntary disclosure should be analysed with caution considering the limitations which occurred because of the complexity of numerous interrelated functions.

In particular, interview research indicated that voluntary disclosure in annual reports is actively used by a wide range of market participants justifying the importance of investigating relevant issues. Considering the relative lack of other corporate releases

into the public domain, voluntary disclosure in annual reports was found to be of particular consideration in terms of accountability and decision making functions. Interviews provided insights into the decision-making process of voluntary disclosure. It was suggested that cost-benefit analysis is the mechanism of voluntary disclosure although this procedure might not be especially sophisticated in the Greek setting. Factors strongly deterring or encouraging voluntary disclosure were discussed. It became evident to the researcher, however, that costs or benefits are understood through selective attention and simplification and they are learned through experience and industrial conventional wisdom. Moreover, perceptions on costs-benefits are dynamic and they are expected to alter through the institutional changes occurring in the Greek capital market.

Interviewees also evaluated the factors included in the quantitative study. The perceptions of the interviewees on the impact of size, listing status and type of report matched the research findings, while perceptions on performance variables were more divergent. Moreover, interviews pointed factors which were influential on voluntary disclosure but which have not been included by the quantitative study. The quality of management, internal corporate factors, the efficiency of the accounting information systems, the firm image and reputation and institutional characteristics were factors suggested to be of particular relevance. Interviews also indicated the potentiality of explaining voluntary disclosure by the behaviour of participants. However, this was beyond the objectives of this thesis. Interviewees also stressed the importance of looking at phenomena related to public voluntary disclosure as insightful specifications of voluntary disclosure, namely credibility and private disclosure.

Credibility of voluntary disclosure was perceived as following the credibility of mandatory disclosure which is of relatively high standards. Interviewees described different processes in assessing the credibility of voluntary disclosure. Overall credibility of corporate signals was perceived to encourage voluntary disclosure since any deviation from truth is anticipated as unethical and reduces the scope for further signals. However, credibility of disclosure in emerging markets and its

relation with the extent of disclosure is bound to many institutional factors which may be highly specific to each capital market. Moreover, interviewees suggested that companies provide materially more private disclosure compared with that published in annual reports. Voluntary disclosure in annual reports is conducted up to the point that satisfies external demands or market/industry benchmarks of adequate information and provides further incentives for private disclosure. Thus, companies keep the private medium open for those who believe them to be beneficial for the company. That seems to influence the extent, quality and types of voluntary information provided in annual reports.

Finally, interviews stressed that vagueness and ambiguity in regulation impacts on the nature of mandatory disclosure making it effectively voluntary. Overall it was suggested that these areas of ambiguity are indicative of market failures since companies do not disclose information at free will. Therefore, regulation was suggested as being the effective option. Interviewees also evaluated the usefulness of theoretical propositions to the case of Greece (10.10). This is reported in 11.3.4.

11.3.3 Nature and Definition of Voluntary Disclosure

An investigation into the definition of voluntary disclosure aimed to provide some clarity and precision on what is meant and researched by the concept of voluntary disclosure (chapter 5). An exploratory study uncovered a state of confusion on the concept of voluntary disclosure. This was evidenced by the inconsistency with which this concept is used by different researchers. A contextual definition of voluntary disclosure assisted in grouping different research approaches into two broad groups: inductive and deductive (5.3). That classification shed some light on the empirical understanding of voluntary disclosure. However, it was shown that each study adopted a different definition which might have reflected different institutional and regulatory characteristics but might also identify the subjectivity in defining voluntary disclosure. However, if concepts are to serve their functions they should be clear, precise and agreed upon. A discussion of the regulatory factors that may influence decisions in defining voluntary disclosure and an approach to define voluntary disclosure in the case of Greece (5.4) provided some direction towards a

definition of voluntary disclosure in an emerging capital market, which could be followed by other research studies.

11.3.4 Applicability of Disclosure Theories

Theories of voluntary disclosure were discussed and critically evaluated in chapter 2. Their applicability to emerging capital markets was also discussed (2.6). Principal conclusions were drawn in 2.9. Theories were also related to Greek institutional characteristics (3.11). These theories were employed to formalise hypotheses (chapter 6) tested by statistical analysis (chapter 9, Table 11-1).

Table 11-1: Summary of Prior Expectations, Theories and Research Findings

Hypotheses and Prior Expectations	Theories	Expected Sign	Research Findings
H_1: There is significant positive association between corporate size and voluntary disclosure	Agency, capital need, political costs, legitimacy, information costs	+	Supported (+)
H_2: There is significant association between gearing and voluntary disclosure	Agency and signalling	±	Not Supported
H_3: There is significant association between profitability and voluntary disclosure	Agency, signalling and political costs	±	Not Supported
H_4: There is significant association between liquidity and voluntary disclosure	Signalling	±	Not Supported
H_5: There is significant association between share marketability and voluntary disclosure	Signalling and capital need	±	Not Supported
H_6: There is significant association between industry and voluntary disclosure	Signalling, political costs, information costs, and legitimacy	±	Supported (+)
H_7: There is significant association between share volatility and voluntary disclosure	Signalling, political costs and capital need	±	Not Supported
H_8: There is significant association between share yield and voluntary disclosure	Agency, signalling and capital need	±	Supported (-)
H_9: There is significant association between type of report and voluntary disclosure	Agency, signalling, capital need and information costs	±	Supported (+)
H_{10}: There is significant positive association between listing status and voluntary disclosure	Agency, signalling, capital need and information costs	+	Supported (+)

Some anticipation of the usefulness of disclosure theories could be derived from the indications provided of the significance or non-significance of the independent variables. The 10 independent variables tested by the quantitative analysis of this

study were hypothesised by certain theoretical frameworks. While the results of quantitative research (Table 11-1) tend to support relevance for information costs, capital need and legitimacy, they also suggest some relevance for agency and political costs. Signalling does not appear to be a good explainer of voluntary disclosure in the case of Greece. These results, when compared with results of prior studies in developed and emerging markets (see 2.8.1), tend to suggest that results are more similar to emerging rather than to developed capital markets, which probably indicates that the characteristics in Greece are similar to those in the group of emerging markets. The applicability of disclosure theories was further investigated by perceptions of influential market participants in the context of an emerging capital market. A synthesis of the main conclusions is presented as follows.

Size, listing status and gearing hypothesised by agency theory provided conflicting results. However, size and listing status, which were significant, were hard to interpret since they were supported by many theories. That may particularly true for size which is supported almost by all theories. If gearing indicated some direction, agency might have been concluded as not being a good explanatory theory in the case of Greece. The existence of small-sized and family-owned and managed companies, specific regulatory and institutional characteristics, cultural values, inefficiency of the capital market and low sophistication of market participants, lack of hostile acquisitions taken together may imply relatively weak agency costs (3.11). That was also partially supported by the interviews (10.10.1).

Research findings indicated that profitability, liquidity, marketability and volatility did not give satisfactory explanations of variations in voluntary disclosure. That may suggest that signalling theory, as implied by these variables, was not strongly supported in the Greek market. A possible reason for that could be that signalling effects might be more relevant to relatively efficient capital markets. Moreover, signalling might have higher explanatory power in other corporate media (e.g interim reports) which were more timely to end-users. Signalling effects might have also occurred more strongly through dividend announcements, stock splits or stock repurchase, as suggested by interviewees. Interviews indicated that signalling

strategies were not common in the newly developed capital market. They also pointed out that signalling effects might be exercised by a particularly limited number of listed companies. Moreover, empirical findings and interviews suggested that signalling effects might be more relevant when satisfactory rather than optimal levels of performance were applied.

Size, industry, profitability and volatility hypothesised by political costs theory were inconclusive to give clear direction on political costs. While size and industry were found significant that may not provide a clear direction on political costs since these variables are supported by other theoretical frameworks. However, the particular institutional and regulatory characteristics explained in chapters 3 and 4 did not provide strong anticipation for excessive political costs on voluntary disclosure. Since there has been no published case of government intervention in larger companies or specific industries and also there is no any watchdog committee (equivalent to the FRRP in UK or the SEC in the US) to examine annual accounts, political costs may lose some relevance on the significance of size and industry. Moreover, there have been very few utilities listed on the ASE. Low relevance of political costs was also supported by interviews which suggested that political costs might follow a different pattern (10.10.1). Overall, political costs may not be of high explanatory power, based on the interpretation of empirical results. This analysis however should be also considered in relation to the limitations of the variables operationilised which may not be the best proxies in approaching political costs effects.

Capital need and information costs theories were supported in the case of Greece as strong explanatory frameworks for voluntary disclosure. That was found in significant variables supported by quantitative analysis (size, type of report, listing status and share yield for capital need; and size, type of report, listing status and industry for information costs) and also became particularly clear in the interview study. Capital need may have become of particular importance to voluntary disclosure due to structural changes in the capital market, the improvement of macroeconomic fundaments and the rapid increase of the trade activity in the ASE.

Information costs theory was also supported by the significant variables and its relevance was strengthened by interview results. A clear conclusion of this study is that companies that confront lower direct information costs and have better information systems disclose, in general, more voluntary disclosure which is in line with prior theoretical anticipations and empirical research. However, this study does not provide any direct conclusion between proprietary costs and levels of voluntary disclosure. The main reason is that variables operationalised could not capture adequately any of the proprietary implications. However, it was found that companies in industries with strong competition tended to provide enhanced levels of voluntary information. Although stronger competition could have implied fewer disclosures since proprietary costs become more severe (Verrecchia, 1983), that was not the case here probably because voluntary disclosures were directed in less costly areas. This finding tends to be more consistent with that of Darrough and Stoughton (1990). Considering that theoretical papers on information costs are quite inconclusive in providing some specific direction, some further refinement by operationalising variables more sensitive to proprietary costs could shed some light on detected associations.

Finally, legitimacy theory was also supported, particularly in the context of social responsibility disclosure. Interviews provided further support for legitimacy. However, these results should be examined with caution. Considering issues of social awareness and public policy operation, relative strength of trade unions, environmental and customers protection groups, and perceptions of good corporate citizenship, section 3.11 concluded that legitimacy may be of relevance to some specific companies but it may not be of a wider importance. Therefore, the interpretation for size and industry may be viewed in relation to these limitations, particularly in information categories different from social responsibility. Thus, although size and industry may provide some anticipation of legitimacy implications these may be only partial. Moreover, interview results relating to legitimacy should also be considered with caution since interview answers may be biased. Responses may be directed towards casting interviewees or their organisations in a socially

acceptable role. Overall the conclusions of this section lead further to some implications discussed in 11.4.1.

11.4 Implications of Research Findings

This section aims to discuss the main implications of the research findings. These are discussed according to the objectives of this research. Moreover, explanations about the influences on voluntary disclosure could be particularly useful in financial statement analysis. Users may form expectations about the type and amount of information provided by listed companies and adjust their strategy, costs and time in collecting additional information from other sources. However, apart from the relative implications that a study of voluntary disclosure may imply for individuals or market participants (companies, financial analysts, and various users) there are also implications for national standard setters (policy implications). Moreover, research findings provide some further implications for research issues (theory implications). These are discussed as follows.

11.4.1 Research Implications

Research implications are discussed in this section according to the objectives of this research, namely the contribution to the literature of disclosure in emerging capital markets on the applicability of disclosure theories, contribution to the nature and definition of voluntary disclosure and contribution to understanding voluntary disclosure as follows.

11.4.1.1 Applicability of Theories in Emerging Capital Markets

It is stressed in this study that there is no single theory to explain adequately complex functions of voluntary disclosure. Therefore, it is more appropriate to look upon a set of theoretical frameworks to explain the operation of voluntary disclosure. Significant associations demonstrated for independent variables supported by specific theories (chapter 9) and insights provided by interviews (chapter 10) support the assertion that disclosure theories are applicable and useful explainers of voluntary disclosure in the Greek setting. These have been discussed in 11.3.4.

However, it was stressed in this study that many theories are incomplete to explain sufficiently voluntary disclosure in emerging capital markets. That may be related to

conceptual structure of some theories since most of them are based on strong assumptions that may not really hold in general, and particularly in emerging markets. Therefore, these theories should be approached with caution and always related to environmental characteristics of research settings. Furthermore, most of these theories when related to complex voluntary information behaviour could be perceived as simplistic since they provide some explanation and guidance only through a specific perspective. Therefore, the importance of combined theoretical frameworks becomes of particular interest here. It would be interesting to know, for example, how management would disclose in a company with widely held shareholding (agency), confronting high political costs (political costs) and being in need to raise finance (capital need) at the same time.

Moreover, many theories are inconclusive in providing a specific direction between voluntary disclosure and influential factors. That may be particularly true for signalling, political costs and information costs. Therefore, both further theoretical refinement and empirical testing is needed. That may take the form of further research in emerging markets. It was also discussed in this study that the majority of theories when applied to markets different than US or UK they are based on a culture free hypothesis, assuming a neutral impact of culture values in accounting policies. However, that may be in contrast to the so called 'Malinowskian Dilemma', according to which every system should be understood in its own terms, and every institution should be seen as a product of the culture within which it developed. Therefore, relevant theories may have to be modified or approached in a way relevant to specific culture and institutional characteristics under research. That may be directed towards researching emerging markets.

11.4.1.2 Nature and Definition of Voluntary Disclosure

This study also examined the nature and definition of voluntary based mainly on the empirical understanding of this concept (objective 2). It appeared that the contextual definition of voluntary disclosure is problematic which may derive subjectivity on the operationalisation of the concept in empirical studies. Considering that if concepts have to serve their functions they should be clear, precise and agreed upon, this study showed that empirical definition of voluntary disclosure is not clear, not

precise and far than consensus has been established between researchers. Therefore, it is essential the next generation of researchers in voluntary disclosure pays attention to a broader understanding of the nature of voluntary disclosure, so research in this area becomes more rigorous. Since voluntary information is used in different disciplines, probably with a different meaning, some interdisciplinary research may be need for the clarification of this concept.

11.4.1.3 Voluntary Disclosure Behaviour

Overall, evidence from the quantitative study and the interviews supports the implementation of this research design and it provides understanding about the operation of voluntary disclosure in the case of Greece. The explanatory power of most of the regression models were at high levels, especially when compared with other studies in emerging markets. The segmentation of voluntary disclosure provided evidence that voluntary disclosure operates as a set of heterogeneous groups and as such should be researched. Relative lack of prior research did not provide grounds where these results could be taken, compared and analysed further. Moreover, the noise in the regression models revealed that there is also some considerable part in voluntary disclosure that has remained unexplained. Therefore, better proxies could provide some further improvement of this analysis. These proxies could be directed in being less noisy and therefore, could provide more informed analysis about the operation of voluntary disclosure and also the applicability of theories.

Interviews also suggested that there are more specifications of voluntary disclosure than it was previously assumed by the quantitative study. Internal politics, timeliness, credibility of disclosures, private disclosure and managerial preference for disclosure status quo were suggested as influencing voluntary disclosure. Although the direct quantification of some of these factors is quite difficult (e.g. private disclosure) this study provided bases that issues could be researched probably following a different approach than the one taken here. Thus, case study or grounded theory approaches on relevant issues could also provide additional grounds where the overall voluntary disclosure puzzle could be explained better.

11.4.2 Policy Implications

It is argued that voluntary disclosure issues should always be taken when regulatory bodies consider further regulation (Dye, 1990). Considerable resources are devoted to developing accounting standards and related disclosure requirements. Thus, if a regulatory body merely succeeds in mandating disclosures which firms would adopt voluntarily, the resources used in setting the standards are wasted (ibid.). This research indicates that while there are many areas where Greek companies provide voluntarily enhanced levels of information, there are also many areas with an obvious shortage of relevant information (chapter 8). These findings should point regulators to areas where disclosed information falls short and there may be scope for further regulation. From the research findings, any recommendation to raise the awareness of listed companies should be directed to smaller companies, companies listed on the parallel market, those belonging to the service industry and those having higher share yields.

Interviews indicated a considerable operation of private voluntary disclosure. The less private information there is in a market (and the more that is public), the less value there is in transfers between those who have information and those who do not. This is the same principle that exists behind insider trading regulations. Interviews with regulators also pointed to a strong regulatory tendency towards increasing measures to create fairness in the capital market and desirability on social grounds. Therefore, findings in private disclosure may indicate the relative importance of and areas for further regulation in the future.

Although the above statements follow a rhetoric of massive redirection and regulation of accounting information in order to keep pace with modern business realities, they should be viewed with caution in the case of the ASE. The increase of information should always be examined in relation to derived economic consequences and to specific policy objectives. The primary objective of the ASE has been to increase liquidity and the number of companies listed on the market. Thus, any measure which may deter these objectives may be regarded by the ASE as non-essential at the current phase or as an issue that should be approached with

caution. Moreover, improved voluntary information by listed companies, corresponding to market pressures, may provide further policy concerns about the non-listed companies and the accounting system as a whole. Improved accounting policies by the listed companies may suggest that the accounting system (as viewed by listed/non-listed companies) will not grow as a single system in the future.

11.5 Contribution to Knowledge

By meeting the objectives (1.2) this study contributes to the literature on the following grounds.

A comprehensive analysis of the theoretical frameworks in relation to institutional and regulatory characteristics provides insights into the relative applicability of these theories in the context of an emerging capital market (chapters 2 and 3). Evidence from corporate voluntary practices (chapters 8 and 9) and perceptions of influential individuals about voluntary disclosure (chapter 10) allow a better understanding of voluntary disclosure theories to an emerging capital market. That provides further understanding of the Greek accounting reporting and accounting environment. That is important considering the relative lack of published academic research in disclosure issues in the context of Greece and also in the context of the southern Mediterranean. This research also provides additional grounds which may enhance comparative analysis of financial reporting practices of EU listed companies.

This study contributes to the literature of accounting disclosure by clarifying the concept associated with the term 'voluntary disclosure'. Contextual definitions and analysis in reference to regulatory characteristics stresses that voluntary disclosure research has followed two different research approaches, namely inductive and deductive. Analysis of empirical definitions of voluntary disclosure emphasises the flexibility and subjectivity associated to empirical attempts. However, if research needs to be rigorous, then common understanding of relevant concepts and phenomena researched is needed. This study contributes by developing a process to define voluntary disclosure in the case of Greece, which could be relied upon by other studies in emerging or developed capital markets.

Finally, this study contributes to the literature by providing empirical evidence on the factors associated with the levels and types of voluntary disclosure of companies listed on the ASE as an example of an emerging capital market. The operationalisation of market specific variables meets the need for such an attempt in the disclosure research setting stressed by many prior studies (e.g. Wallace and Naser, 1995). The examination of categories of voluntary disclosure also contributes to a more comprehensive understanding of voluntary disclosure operation. Evidence provided from relative measures of performance also contributes by raising issues related to the operationalisation of signalling theory in voluntary disclosure functions. Interviews with influential market participants contribute to a fuller understanding of voluntary disclosure in an emerging capital market. Issues raised point to the construction of richer research designs and indicate the need of looking at specific phenomena (e.g. private disclosure, credibility) as strong determinants of published voluntary disclosure.

11.6 Limitations

There are several limitations of the empirical research in this study. While the sample is not random, it consists of 38% of the listed companies. Those sampled are biased towards the largest companies in the market. Thus, the current results and interpretations may not be generalisable for the entire population of companies listed on the ASE. Second, the scoring process may be limited by subjectivity which cannot be entirely eliminated, although criteria were developed for this exercise with a view to objective and replicable analysis. However, total elimination of subjectivity is not likely. Third, another limitation of the current study is the assumption implicitly contained in this study that the more voluntary disclosure provided the better informed the end users become. However, that may not be the case since the information overload problem may be of some concern here. Although there is no empirical study to demonstrate such a problem in the case of Greece and, to the knowledge of the researcher, to other emerging markets, the potentiality of such a problem has been indicated in papers on information economics (e.g. Hirshleifer, 1971).

Moreover, the current research is focused on investigating annual reports as the medium for companies providing voluntary information to external users. However, that is not the only medium by which Greek companies communicate with external users. However, annual reports were investigated because they were considered to be the most important corporate document. Additionally, results may be time specific which is a general limitation in disclosure studies when factors strong enough to change disclosure exist over time. Although disclosure policies and practices tend to remain relatively constant from year to year (Inchausti, 1997) that may not be the case when institutional changes take place.

Although it is beyond the scope of this research to discuss the intrinsic value of information such as correctness and materiality, there is a possibility of misinformation in annual reports. However, it was decided to ignore this because it was not logically feasible to plan an investigation. Such an exercise would require going behind the reported information into the records of each firm, access to which is difficult and also costly. This approach is similar to that of Wallace and Naser (1995). However, elements of disclosure credibility were assessed by the interview study (10.6).

Some other limitations may be related to the operationalisation of specific variables. While some variables may be considered of particular importance to voluntary disclosure, a fact to which became particularly clear in the interview study, they were ignored for a range of reasons. While corporate governance variables (e.g. ownership structure) have been suggested in the literature to have high explanatory power, data were not available in the public domain at the beginning of this study. Quality of management may be another variable with explanatory potential. However, there is difficulty in measuring it through an adequate proxy. Although quality of management depends on individual characteristics which could be assessed by psychometric tests, it is unlikely management would agree to this. Moreover, disclosure decisions are quite often group decisions which complicates further any operationalisation of this variable. Additionally, variables related to corporate

internationalisation were not directly used considering the difficulty in obtaining informative data in segmental disclosure. Furthermore, variables related to institutional characteristics, organisational structure and internal politics were not used considering the nature of this study and issues related to costs and time.

Some further limitations may be related to the general operationalisation of variables related to signalling implications which have been widely used in prior literature and have been followed by this study. While there is an argument that suggests that if performance can be measured as a variable it must be public information which reduces possibilities of signalling, this research has assumed that there are still grounds where management may wish to screen 'otherness' in annual reports. Moreover, signalling effects could be more easily observed and more pragmatic if performance could be related to industry averages. Furthermore, considering that the annual report is relatively late, disclosure practices and signalling effects could be influenced by corporate performance during the period of preparation of the annual or by managerial anticipations of future performance. Therefore, next year's expected performance could be a dominant factor affecting disclosure decisions which has not been considered by this study.

Finally, limitations of opinion research are also present in this study. Interview questions should follow an ideal situation. The interviewer should be a neutral medium through which questions and answers are transmitted. However, that is not likely to occur in real interviews. Interviews were conducted in Greek and translated by the researcher into English. Finally, interviewees belonged to the largest and more sophisticated organisations in Greece and results may be indicative of best practice. Thus, some further limitations may be raised here.

11.7 Suggestions for Further Research

The main suggestions for further research are discussed as follows:

- **Explanatory Variables.** This research study indicates the importance of looking for additional explanatory variables for voluntary disclosure and also for variables

that may be more relevant for the non-identical environments of emerging markets. Additional variables could increase the explanatory power of the model applied. Factors that were thought to be potentially influential but could not be operationalised could be a topic for further research. The quality of management, corporate governance and supply of consultancy to the companies are some examples. Interviews revealed the importance of modelling factors such as corporate culture and tradition, internal politics or corporate history as being particularly influential factors.

- **Expansion of study.** It is mentioned in the limitations that results may be time specific, considering the singular characteristics of 1997. The wider the distribution of shares in a given society, the higher the incentive to disclose more information (Kahl and Belkaoui, 1981). Therefore, the rapid expansion of shareholdings in Greece from 1996 onwards may provide sound bases for further development of voluntary disclosure practices. Thus, a cross-section replication of this study in the future with a greater sample may provide support for current results or provide further enlightenment about the alternation between voluntary disclosure practices and influential factors. That could also take the form of a time-series study considering the rapid development of the ASE, which may imply continuous alternations in voluntary disclosure policies.

- **Test measurement assumptions.** This study, based on empirical findings (e.g. Spero, 1979; Chow and Wong-Boren, 1987), assumes that disclosure items have the same weight and those companies which are good at disclosing more information tend to disclose the most important information. Therefore, a survey including various groups of users of annual reports could provide further insights into the reliability of this assumption in the case of Greece and also as a general rule.

- **Comparative studies.** This study has provided some evidence about the operation of voluntary disclosure in a European emerging capital market. Therefore, it would be interesting to carry out a cross-national study between Greece and other countries with similar or different institutional characteristics. That would enable a

more informed analysis about similarities and differences of financial reporting internationally. It would also reduce the subjectivity of comparisons based on single national studies since a more homogeneous research approach would have been emerged. That could be directed towards including European countries, considering issues of the European accounting harmonisation process.

- **Research designs.** This study has used mainly a hypothetico-deductive study based on statistical testing. Some opinion research was also used which provided particularly insightful results and revealed limitations of the quantitative research alone. Therefore, it may be interesting to investigating voluntary disclosure by different research designs based on different assumptions as further extensions of this research. That may be particularly the case in issues where survey designs may fall short in adequately capturing related issues (e.g. credibility and private disclosure). Therefore, case studies or research based on grounded theory could shed some further light on detected or ignored issues raised by this study.

- **Modelling costs of voluntary disclosure and other potentially influential factors.** Another interesting approach could have been the modelling of voluntary disclosure in reference to the relative overall or proprietary costs associated. Developing proxies less noisy than the ones already used in the literature could enable some further development in research on accounting disclosure which could bridge theoretical anticipations with empirical evidence. Additionally, interviews reveal that particularly interesting issues to be examined in reference to voluntary disclosure include the operation of private disclosure and also the credibility of disclosures. Other revealing topics for further research are include timeliness, and the operation of non-disclosure. A model incorporating two specifications of voluntary disclosure such as the extent of disclosure and timeliness, probably in a simultaneous equations study, could reveal some further comprehensiveness in relevant phenomena. Moreover, the examination of voluntary disclosure in a non-linear multivariate analysis could be of particular interest and probably could be more closer to disclosure reality.

- **Theoretical refinement.** Most existing empirical and theoretical research has tended to view the voluntary disclosure as an amorphous group. However, the current research has proved empirically that there are significant differences between types of voluntary disclosure. Thus, a further theoretical refinement and empirical investigation of this topic may provide further light in the voluntary disclosure puzzle. Moreover, some further refinement of existing theories in order to approach better the institutional bases of emerging markets or to relate to culture may be a revealing topic of further research. That could also take the form of designing combined theoretical frameworks. Finally, this research study tested some relative measures of performance in order to investigate whether signalling effects can be captured more easily with measures different from the conventional measures used in prior disclosure studies which may provide scope for further research. That could be directed in examining corporate performance based on industry benchmarks and according to future expectations. This thesis has provided a foundation on which these questions can be answered.

APPENDICES

Appendix 2-I: Empirical Studies on Developed Capital Markets

Study, Year and Country	Disclosure Index	Data Quantities	Independent Variables	Results
Cerf (1961), USA	31 weighted items	527 listed companies	Total assets, no of stockholders, profitability, listing status	Positive association for size, number of stockholders, profitability, listing on NYSE.
Singhvi and Desai (1971), USA	34 weighted items, 28 items adopted from Cerf (1961)	100 listed, 55 unlisted	Total assets , no of stockholders, listing status, audit firm, rate of return, earnings margin	Positive association for all six variables. Higher volatility for companies disclosing less.
Buzby (1974b; 1975), USA	39 items weighted items	44 listed and 44 unlisted companies	Total assets, listing status	Positive association for total assets.
Stanga (1976), USA	79 weighted items	80 listed companies	Net sales, industry	Significance for industry.
Belkaoui and Kahl (1978), Canada	30 weighted items	200 non-financial companies	Size, profitability, liquidity, capitalisation ratio, industry	Significance for size, liquidity, industry. Negative association for profitability and capitalisation ratio.
Firth (1979a; 1979b), UK	48voluntary weighted items	40 listed and 40 unlisted companies	Size (sales, capital employed), listing status, audit firm	Positive association for size and listing status.
McNally et al. (1982), New Zealand	41 voluntary weighted items	103 listed companies	Size, industry, audit firm, rate of return, growth	Positive association for size.
Cooke (1989a), Sweden	224 mandatory unweighted items	33 listed, 19 multiple listing, and 38 unlisted companies	Size, listing status, industry, parent company relationship	Significance for size, listing status and industry.
Lutfi (1989), UK	53 unweighted items	122 unlisted companies	Size, gearing, director's holdings, foreign turnover, substantial shareholdings, audit firm, no of executive directors, existence of executive share option scheme, industry, tax status	Significance for size, percentage of foreign turnover, gearing and executive share option schemes. Negative association for director's equity and profitability.
Cooke (1991), Japan	106 voluntary unweighted items	13 unlisted, 25 listed, 10 multiple listing companies	Size, listing status, industry	Positive association for size, listing status and manufacturing companies.

Cooke (1992), Japan	165 unweighted items, 76 voluntary and 89 mandatory items	35 listed companies	Size, listing status, industry	Positive association for size, listing status and manufacturing companies.
Cooke (1993), Japan	195 unweighted voluntary and mandatory items	13 unlisted, 25 listed, 10 multiple listing companies	Listing status	No difference between unlisted and domestic listed on CC accounts. Domestic listed provide more voluntary disclosure in SEL accounts. Multiple listed provide more voluntary disclosure in both CC and SEL accounts than domestic listed.
Malone et al. (1993), US	129 weighted mandatory items	125 oil and gas companies	Debt/equity ratio, no of shareholders, total assets, interindustry diversification, rate of return on net worth, earnings margin, audit size, listing status, foreign operations, proportion of outside directors	Significance for listing status, ratio of debt to total equity and number of shareholders.
Wallace et al. (1994), Spain	16 unweighted mandatory items	30 listed and 20 unlisted companies	Size, gearing, earnings margin, liquidity, listing status, industry, audit firm	Significance for size, listing status and liquidity (negative).
Hossain et al. (1995),New Zealand	95 unweighted voluntary items	55 listed companies	Total assets, gearing, assets in place, listing status, auditing firm,	Significance for size, listing status and gearing.
Raffournier (1995), Switzerland	30 unweighted voluntary items	161 industrial listed companies	Size, gearing, profitability, ownership structure, internationality, audit firm, percentage of fixed assets, industry	Significance for size and internationality.
Inchausti (1997), Spain	50 unweighted items	49 listed companies for 1989, 47 listed companies for 1990 and 42 listed companies for 1991	Size, gearing, profitability, dividend pay out ratio, listing status, audit firm, industry	Significance for size, audit firm and listing status.
Tauringana (1998), UK	68 unweighted voluntary items	73 unlisted and 203 listed companies	Size, gearing, profitability, liquidity, no of business activities, audit firm, institutional investment, proportion of non-executive directors	Significance for size, listing status and profitability. No significance for unlisted companies. Significance for size and profitability for listed companies.
Depoers (2000), France	65 unweighted voluntary items	102 listed companies	Size, foreign activity, ownership structure, gearing, audit firm, proprietary costs, labour pressure	Significance for size, foreign activity, proprietary costs and labour pressure (negative).

Appendix 2-I: Empirical Studies on Emerging Capital Markets

Study, Year and Country	Disclosure Index	Data Quantities	Independent Variables	Results
Singhvi (1968), India	34 weighted items, 31 adopted from Cerf (1961)	45 listed companies	Asset size, profitability, audit firm, type of management, no of stockholders	Significance for size, profitability and type of management. Higher volatility for companies disclosing less.
Firer & Meh (1986), South Africa	49 weighted items	36 listed companies	Not tested	Low levels of disclosure. UK and South African investment analyst have different requirements but they both considered voluntary items of high relevance. High correlation between users and preparers views.
Chow & Wong-Boren (1987), Mexico	24 weighted items	52 listed companies	Size, gearing and assets in place	Positive association for size.
Wallace (1987), Nigeria	185 unweighted items	47 listed companies	Size, profitability, liquidity, management type, origin of parent, industry	Significance for size.
Tai et al. (1990), Hong-Kong	10 unweighted mandatory items	76 listed companies	Size, industry, audit firm	Significance for size.
Abayo et al. (1993), Tanzania	44 unweighted items. Mandatory and voluntary disclosure, timeliness and audit opinion	51 companies	Not tested	Low quality for mandatory and voluntary disclosure. Weak association between mandatory and voluntary disclosure. Weak association between timeliness and audit opinion. No significance between disclosure and timeliness.
Ahmed & Nicholls (1994), Bangladesh	94 unweighted mandatory items	63 listed companies	Size, debt, subsidiary of multinational, qualification of principal accounting officer, audit firm	Significance for audit firm, subsidiary of multinational and size.
Hossain et al. (1994), Malaysia	78 unweighted voluntary items	67 listed companies	Size, ownership structure, leverage, assets-in-place, audit firm, listing status	Significance for size, ownership structure and listing status.
Al-Modahki (1995), Saudi Arabia	121 unweighted items, 50 mandatory and 71 voluntary	33 listed companies	Size, audit firm, foreign investment, length of incorporation	Significance for size, industry.

Nicholls and Ahmed (1995), Bangladesh	87 unweighted items, 48 mandatory and 39 voluntary	63 listed companies	Not tested	Improvement of disclosure between 1984-1988. However disclosure is not adequate.
Wallace and Naser (1995), Hong-Kong	30 unweighted mandatory items	80 listed companies	Size, industry, profitability, liquidity, gearing and audit firm, foreign regisration	Significance for size, industry and profitability (negative).
Patton & Zelenka (1997), Czech Republic	37/49/66 unweighted items	50 listed companies	Size, profitability, risk, gearing, listing status, audit firm, no of employees, industry	Significance for size, profitability, risk, audit firm, listing status, no of employees.
Suwaidan (1997), Jordan	75 unweighted items	102 listed companies	Size, no of shareholders, institutional ownership, government ownership, industry, audit firm, international contacts of auditing firm, profitability, frequency of external finance	Significance for size, audit firm, industry and government ownership.
Owusu-Ansah (1998), Zimbabwe	214 unweighted mandatory items	49 listed companies	Size, audit firm, ownership structure, industry, company age, multinational affiliation, profitability, liquidity	Significance for size, ownership structure, company age, multinational affiliation and profitability.
Abd-Elsalam (1999), Egypt	241 unweighted mandatory items	72 listed companies	Size, legal form, share trading, industry, audit firm, profitability, liquidity, gearing, familiarity and language	Significance for size, share trading, legal form, audit firm. Familiarity and language explain also variations in disclosure.
Sarpong (1999), Ghana	156 unweighted items, 113 mandatory and 43 voluntary	15 listed companies for 1988-1997	Size, listing status and accounting regulation	Significance for size and listing status and accounting regulation.

Appendix 7-I: List of Sampled Companies

List of Sampled Companies	
A.G.Petzetakis	Heracles General Cement
AEGEK	Hermes
Alatini	Hippotour
Aluminium of Greece	Inform P. Lykos
Aluminum of Attica	Intracom
Arcadia Metal Industry – C.Rocas	Kalpinis-N.Simos Steel Service Center
Atemke	Karelia Tobacco Company
Athens Medical	Katselis Sons S.A. Bread Industry
Attica Enterprises.	Klonatex I.C.S.T. & T.C.A.
Atti-Kat	Lampropoylos
Avax S.A.	Lavipharm
Biokarpet	M.J,Mailis
Britania Worsted Industry.	Martime Company of Lesvos
C.I.Sarantopoulos	Metalloplastiki Agriniou
Chipita International.	Metka
Cor-Fil	Michaniki
D.A.N.E. Sea Line	Naoussa Spinning Mills
Delta Dairy Group of Companies	Nikas
Delta Informatics.	OTE
Diekat	P.D.Papoutsanis
EL.D.Mouzakis.	Papaellinas Group of Companies
Elais	Radio A. Korassides
Elliniki Technodomiki	Remek Pharmaceuticals
Elmec	Rilken
Elval.	S.Sigalas
Elve	Sanyo Hellas
Ergas	Selected Textiles Industries Association
Esha	Selonda Aquaculture
ETEM	Sidenor
Etma Rayon	Silver & Baryte Ores Mining
Euromedica	SP.Tasoglou
Fanco	Sportsman
Flour Mills Loulis	St.George Mills
Fourlis	Strintzis Lines
Gekat	Themeliodomi
Gen. Commercial & Ind.	Titan Cement Company
General Food Industry (Uncle Stathis)	Vernicos
Goody's	Viohalco
Halkor	Vis Manufacturing
Hellas Can	Volos
Hellenic Biscuit Company	Warehouses
Hellenic Bottling	Xylemporia
Hellenic Cables	Yalco-Socratis D. Constantinou & Son S.A.
Hellenic Fabrics	

Appendix 7-II: Disclosure List-Citation of Prior Research

	Disclosure List - Citation	
•	**General Information about the Economic Environment**	
1	Information about the influential activity of the State	Cooke, 1989a
2	Information about the economy	Stanga, 1976; Firth, 1979a; Firer and Meth, 1986; Cooke, 1989a; Suwaidan, 1997; Rahman, 1998
3	Information about the industry	Singhvi, 1968; Firth, 1979a; McNally et al., 1982; Firer and Meth, 1986; Cooke, 1989a; Hossain et al., 1994; Hossain et al., 1995; Suwaidan, 1997; Rahman, 1998
4	Specific factors influencing business	Cooke, 1989a; Hossain et al., 1994; Hossain et al., 1995; Suwaidan, 1997
•	**General Corporate Information**	
5	Brief history of company	Buzby, 1974b; Stanga, 1976; McNally et al., 1982; Hossain et al., 1994; Hossain et al., 1995; Gray, S, et al., 1995; Meek et al., 1995; Suwaidan, 1997; Saprong, 1999
6	Financial highlights statement	Firth, 1979a; Firth, 1980; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995;
7	Information on products/services	Singhvi and Desai, 1971; Chandra, 1974; Stanga, 1976; Firth, 1979a; Firth, 1980; Hossain et al., 1995; Suwaidan, 1997; Sarpong, 1999
8	Discussion on last years performance	Firer and Meth, 1986; Chow and Wong-Boren, 1987; Meek et al., 1995; Sarpong, 1999
9	Organisational structure	Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
10	Description of marketing network	Firth, 1979a; Firer and Meth, 1986; Chow and Wong-Boren, 1987; Hossain et al., 1994; Hossain et al., 1995; Suwaidan, 1997
11	Overview of the major subsidiaries	Buzby, 1974b; Cooke, 1989a; Gray, S, et al., 1995; Sarpong, 1999
12	Forward-looking information	Firth, 1979a; Hossain et al., 1994; Gray et al., 1995; Hossain et al., 1995; Meek et al., 1995; Suwaidan, 1997; Sarpong, 1999
13	Graphs/photos	Tauringana, 1997; Rahman, 1998
•	**Specific Corporate Information**	
14	Statement of strategy and objectives-general	Buzby, 1974b; Firth, 1979a; Firth, 1980; Firer and Meth, 1986; Hossain et al., 1994; Hossain et al., 1995; Gray, S, et al., 1995; Meek et al., 1995; Suwaidan, 1997; Rahman, 1998
15	Specific statement of strategy and objectives (financial-marketing-social)	Cooke, 1989a; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995
16	Impact of strategy on current results	Meek et al., 1995
17	Information on acquisitions/expansion of programs	Firer and Meth, 1986; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
18	Information on disposals/cessation of programmes	Gray, S, et al., 1995; Hossain et al., 1995
19	Productive capacity	Chandra, 1974; Cooke, 1989a
20	Analysis of subsidiaries (brief history, operations)	Buzby, 1974b; Cooke, 1989a

21	**Analysis of products/services**	Singhvi and Desai, 1971; Chandra, 1974; Stanga, 1976; Firth, 1979a; Hossain et al., 1995; Suwaidan, 1997
22	**Description of capital project committed**	Stanga, 1976; Firth, 1979a; Firer and Meth, 1986; Chow and Wong-Boren, 1987; Gray, S. et al., 1995
23	**Analysis of capital projects (quantitative)**	Stanga, 1976; Firth, 1979a; Firer and Meth, 1986; Chow and Wong-Boren, 1987; Gray, S. et al., 1995
		Information about Directors
24	**Personal characteristics of directors (age, education etc)**	Buzby, 1974b; McNally et al., 1982; Cooke, 1989a; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Suwaidan, 1997; Rahman, 1998; Sarpong, 1999
25	**Position or office held by executive directors**	Singhvi and Desai, 1971; Chandra, 1974; Cooke, 1989a; Gray, S, et al., 1995; Suwaidan, 1997; Rahman, 1998
26	**Remuneration**	Chandra, 1974; Firth, 1979; Firth, 1980; Cooke, 1989a; Gray, S, et al., 1995; Rahman, 1998; Sarpong, 1999
		Employee Information
27	**Information on geographical distribution of employees**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
28	**Line of business distribution of employees (disaggragated)**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
29	**Categories of employees (sex-function-age-education)**	Firth, 1979a; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995
30	**Categories of employees trained**	Gray, S, et al., 1995; Meek et al., 1995
31	**Identification of senior management and their functions**	Firth, 1979a; Firth, 1980; Gray, S, et al., 1995; Meek et al., 1995
32	**Amount spent in training**	Firth, 1979a; Firer and Meth, 1986; Hossain et al., 1994; Hossain et al., 1995 Gray, S, et al., 1995; Meek et al., 1995
33	**Nature of training**	Gray, S, et al., 1995; Meek et al., 1995; Rahman, 1998
34	**Policy on training**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
35	**Number of employees trained**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995
36	**Impact of training on results**	Gray, S, et al., 1995
37	**Policy on human resources**	Hossain et al., 1994; Hossain et al., 1995; Meek et al., 1995; Rahman, 1998
38	**Data on accidents**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
39	**Safety measures**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Rahman, 1998

		Social Policy
40	Safety/quality of products/ services (general)	Gray, S, et al., 1995; Meek et al., 1995; Rahman, 1998
41	Environmental protection programs-qualitative	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Rahman, 1998; Sarpong, 1999
42	Environmental protection programs-quantitative	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
43	Charitable donations	Cooke, 1989a; Gray, S, et al., 1995; Meek et al., 1995
44	Community programs	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Rahman, 1998; Sarpong, 1999
45	Value added information	Firth, 1979a; Firer and Meth, 1986; Cooke, 1989a, Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Sarpong, 1999
		Segmental information
46	Geographical production	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
47	Geographical sales disaggregated	Chandra, 1974; Firth, 1979a; Firer and Meth, 1986; Gray, S, et al., 1995; Hossain et al., 1995
48	Line of business production	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
49	Line of business sales disaggregated	Chandra, 1974; Firth, 1979a; Firer and Meth, 1986; Gray, S, et al., 1995; Hossain et al., 1995
50	Competitor analysis	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
51	Market share analysis	Chandra, 1974; Stanga, 1976; Firth, 1979a; McNally et al., 1982; Firer and Meth, 1986; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Suwaidan, 1997
		Financial ratios
52	Profitability ratios	Cooke, 1989a; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Suwaidan, 1997
53	Performance ratios	Cooke, 1989a; Hossain et al., 1994; Hossain et al., 1995
54	Gearing ratios	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995; Sarpong, 1999
55	Liquidity ratios	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995;
56	EPS	Chandra, 1974; Kahl and Belkaoui, 1981; McNally et al., 1982; Cooke, 1989a; Suwaidan, 1997; Sarpong, 1999
57	Other ratios	Cooke, 1989a; Hossain et al., 1994; Hossain et al., 1995; Meek et al., 1995; Suwaidan, 1997; Rahman, 1998
		Financial Review
58	Qualitative comments on profitability	Gray, S, et al., 1995
59	Expenditure on specific marketing projects	Singhvi, 1968; Singhvi and Desai, 1971; Stanga, 1976; Gray, S, et al., 1995; Meek et al., 1995
60	Information on contribution of subsidiaries	Buzby, 1974b; Stanga, 1976; Cooke, 1989a
61	Statement of the accounting principles	Stanga, 1976; Firth, 1979a; Kahl and Belkaui, 1981; Suwaidan, 1997; Sarpong, 1999

No.	Item	Studies
62	**Effects of foreign currency fluctuations on operations**	Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
63	**Cash-flows**	Gray, S, et al., 1995; Hossain et al., 1995; Sarpong, 1999
		Market Related Information
64	**Share price at the year end**	Gray, S, et al., 1995; Hossain et al., 1995; Sarpong, 1999
65	**Share price trend**	Firth, 1979a; Chow and Wong-Boren, 1987; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Suwaidan, 1997; Rahman, 1998; Sarpong, 1999
66	**Market capitalisation at the year end**	Stanga, 1976; Hossain et al., 1994; Gray, S, et al., 1995; Hossain et al., 1995; Meek et al., 1995
67	**Market capitalisation trend**	Gray, S, et al., 1995; Meek et al., 1995
68	**Size of shareholdings**	Cooke, 1989a; Gray, S, et al., 1995; Rahman, 1998; Sarpong, 1999
69	**Type of shareholders**	Chandra, 1974; Firth, 1979a; McNally et al., 1982; Firer and Meth, 1986; Chow and Wong-Boren, 1987; Cooke, 1989a; Gray, S, et al., 1995
70	**Significant shareholders**	McNally et al., 1982; Gray, S, et al., 1995; Sarpong, 1999
71	**Information on new issues**	Stanga, 1976; Rahman, 1998
72	**Dividend policy**	Buzby, 1974a; Stanga, 1976; McNally et al., 1982; Meek et al., 1995; Rahman, 1998

Appendix 7-III: Explanation of the Informational Content of Disclosure Items

No	Explanation of the Informational Content of Disclosure Items
•	**General Information about the Economic Environment**
1	**Information about the influential activity of the State** General information about state actions or decisions which influence business. That may be either regulations and restraints in operations as influence companies, or specific actions on certain companies or criticism about the highly regulated or unregulated market milieu, or comments on specific decisions, state ownership in the market and operation of state owned companies.
2	**Information about the economy** Any mention, discussion or analysis of the economic environment (national or international) which affects corporate operations. That refers (for 1997) mainly to the decrease of inflation, the international financial crisis, devaluation of Greek Drachma etc. and in general any discussion of macro indicators as they affect business.
3	**Information about the industry** Any mention or discussion of the specific characteristics of the industry. That may include industry profile and trends, problems in the industry, trends in customers' wants, comments on competition, industry growth rate, particular opportunities or threats etc.
4	**Specific factors influencing business** Mention or discussion about specific factors influencing business. That refers mainly (for 1997) to technological changes for some companies, upgrades of accounting information systems to monitor accounts in Euros, issues related to 'millennium bug', Olympic Games 2004 etc.
•	**General Corporate Information**
5	**Brief history of company** Any statement which provides a corporate profile of the main phases of corporate development and any overview or introduction of corporate history. That may include names of founders, date of foundation or any other important dates or corporate decisions and actions that show the development of corporate size, geographical scope, strategy etc.
6	**Financial highlights statement** Any statement emphasising particular results (such as sales, profits etc) or corporate indicators or provision of comparative financial data.
7	**Information on products/services** Statement of the main products or services. That may include specific mention of each product or service where appropriate or the main operations when products or services engage an extensive variety in some companies.
8	**Discussion on last years performance** Any discussion or analysis about the last year's performance and factors that have influenced the relative successful or unsuccessful past results. Reasons that justify increased/decreased sales or costs compared with previous years reflect the informational content of this item.
9	**Organizational structure** Presentation of the organisational structure of the company.
10	**Description of marketing network** Description of marketing network for main finished goods/services.
11	**Overview of the major subsidiaries** Any introductory discussion about the main subsidiaries, their location and their main

operations and products, and in general any mention that aims to provide a clearer view about the profile of the main subsidiaries.

12 **Forward-looking information**[1]
Discussion of future prospects which is based on analysis of the factors affecting business and which will influence future results. Sales, earnings, share price forecasts are included in this item which contains both quantitative and qualitative information.

13 **Graphs/photos**
Inclusions of graphs/ or diagrams/ photos.

• **Specific Corporate Information**

14 **Statement of strategy and objectives-general**
Any statement revealing the main objectives, aims, targets, managerial philosophy or corporate mission.

15 **Specific statement of strategy and objectives (financial-marketing-social)**
Any statement or discussion over specific objectives such as financial, marketing, or social related aims.

16 **Impact of strategy on current results**
Any qualitative statement by the management for the relative importance of the general strategy or more often importance of specific strategies (financial, marketing etc) on the current results of the company. That may be perceptions of increased turnover, net results, corporate image, increased borrowing capacity, productivity, improved product/service quality, or any mention revealing the contribution of strategy to corporate success.

17 **Information on acquisitions/expansion of programs**
Any mention or discussion or analytical explanation about acquisitions or expansion of programs and comments about reasons that justify such a decision.

18 **Information on disposals/cessation of programs**
Any mention or discussion or analytical explanation about disposals or cessation of programmes and about reasons that justify such a decision.

19 **Productive capacity**
Any mention revealing productive capacity of the main lines of business.

20 **Analysis of subsidiaries (brief history, operations)**
Discussion or analytical provision of information about main subsidiaries. That may include brief statements of history, analysis of main products/services, discussion of competitive advantages or particular strengths, special targets or position in the group strategy, discussion of certain issues (e.g. share price performance).

21 **Analysis of products/services**
A detailed discussion of all or main products or services. That may include description of main characteristics, main advantages/disadvantages, target consumer groups, analysis of new products etc.

22 **Description of capital project committed**
Any statement providing information of specific capital projects committed.

[1] An extensive discussion about this item is provided in 4.10.2.

23 **Analysis of capital projects (quantitative)**
Analytical description, providing detailed quantitative information, of capital projects committed.

• **Information about Directors**

24 **Personal characteristics of directors (age, education etc)**
Personal characteristics of directors referring mainly to their age, business or academic experience, qualifications, educational degrees, background directorships, positions held in other companies, committees, federations etc.

25 **Position or office held by executive directors**
Names of executive directors and their specific positions or offices in companies which reveal their main functions and responsibilities.

26 **Remuneration**
Specific management remuneration to directors or any information which exceeds regulatory provisions and indicates managerial fees.

• **Employee Information**

27 **Information on geographical distribution of employees**
Any statement providing information of the number of employees in different geographical regions.

28 **Line of business distribution of employees (disaggragated)**
Any statement providing disaggragated information about the number of employees on different lines of business.

29 **Categories of employees (sex-function-age-education)**
Any statement providing classificatory information about labour force according to sex or age or functions or education.

30 **Categories of employees trained**
Any statement revealing the categorical identity of employees trained. That may be information on the training in different geographical regions or lines of business or according to position-education held in the company.

31 **Identification of senior management and their functions**
Any statement regarding office or positions held by senior management which may reveal their functions or further comments on their responsibilities, lines/employees in charge.

32 **Amount spent in training**
Overall or detailed information of amounts spent on various training programmes.

33 **Nature of training**
Description or discussion of the main training programmes carried out.

34 **Policy on training**
Any mention or comment for the specific reasons programmes are carried out, reasons programmes are carried out in a particular way, reasons for training particular groups of employees, reasons emphasising specific functions or any mention which in general reveals corporate strategic planning over training operations.

35 **Number of employees trained**
The actual number of employees trained.

36 **Impact of training on results**

Any qualitative statement by the management for the relative importance of training programmes on the current results of the company. That may be perceptions of increased productivity or improved product/service quality, or increase in the volume of sales, or decrease on accidents (associated with costs) or any mention revealing the contribution of training to corporate success.

37 **Policy on human resources**

Any statement or mention that reveals management attitude towards human recourses. That may include statements on equal employment policy, criteria on hiring personnel, relations with labour unions, flexibility of employee demands or problems, statements that may indirectly reveal preferences towards certain categories of employees (in terms of education or age) and in general any mention which may be related to the implementation of specific strategy or corporate objectives over labour force.

38 **Data on accidents**

Any mention to data of accidents for at least one year. Information on comparative data and reasons for accidents, explanations are also included.

39 **Safety measures**

Discussion over specific programmes or corporate actions that ensure, improve or protect employee health and safety. That ranges from provision of adequate medical services, tests etc to specific equipment or process during the working time and in general any information relevant to measures of employee safety or health or decreasing working accidents.

• **Social Policy**

40 **Safety/quality of products/services**

Any mention of the relative safety or quality of products or services. That may be assessed indirectly by regarding information on awards about products/services, or quality assurance certificates.

41 **Environmental protection programmes-qualitative**

Any mention or discussion about programs that are run by the company and their aim is the protection of environment. That ranges from reforestation, recycling and usage of alternative ways of energy or energy optimisation, to utilisation of environmental friendly product ingredients, equipment, reduction in emissions or introduction of process-integrated environmental protection.

42 **Environmental protection programmes-quantitative**

Any mention or discussion about amounts spent in programmes that are run by the company and their aim is the protection of environment. That ranges from amounts spent in reforestation, recycling and usage of alternative ways of energy to extra amounts spent for utilisation of environmental friendly product ingredients, equipment, or production process.

43 **Charitable donations**

That includes any corporate contribution to education, arts, infrastructure, the Greek Orthodox Church, schools, programmes in cooperation with Ministries, universities or schools or any donation which refers to the public or to the nation and reveals ethical corporate considerations.

44 **Community programmes**

Information on any kind of community programmes. That includes involvement with small communities in the location of companies (e.g. schools, local cultural associations, local sports clubs) or programmes with specific groups (e.g. families of employees, university students, ethnic minorities etc).

45 **Value added information**

Any statement which shows the value added to materials and services purchased externally and indicated the contribution of the company to employees, state (taxes), shareholders etc.

• **Segmental information**

46 **Geographical production**

Any statement provided information of geographical production.

47 **Geographical sales disaggregated**

Any statement provided information of disaggregated geographical sales in extent of domestic sales/exports.

48 **Line of business production**

Any statement provided information of line of business production.

49 **Line of business sales disaggregated**

Any statement provided information of disaggregated line of business sales in extent of broad categories: services, products.

50 **Competitor analysis**

Any mention or discussion of main competitors in main lines of business or in main geographical areas. Any comment that may indicate relative advantages or disadvantages of competitors' products/services, strategy or marketing is regarded as belonging here.

51 **Market share analysis**

The percentage of company's market share for any or main products or services internationally, nationally or in main markets operated.

• **Financial ratios**

52 **Profitability ratios**

Disclosure of at least one profitability ratio for the fiscal year 1997.

53 **Performance ratios**

Disclosure of at least one performance related ratio for the fiscal year 1997 other than profitability and liquidity (e.g. total asset usage, fixed asset usage).

54 **Gearing ratios**

Disclosure of at least one gearing ratio for the fiscal year 1997.

55 **Liquidity ratios**

Disclosure of at least one liquidity ratio for the fiscal year 1997.

56 **EPS**

Disclosure of EPS for 1997.

57 **Other ratios**

Disclosure of at least one ratio, not belonging to the previous categories, for the fiscal year 1997.

• **Financial Review**

58 **Qualitative comments on profitability**

Discussion or analysis about the particular factors that had impacts on profitability of the current year, comparative comments between past data, or industry data or comments referring to managerial expectations and actual results.

59 **Expenditure on specific marketing projects**

Any declaration of quantitative data on specific marketing projects (e.g. advertisement campaigns etc).

60 **Information on contribution of subsidiaries**

Discussion or analytical information of the main contributions of subsidiaries in group results. That may be contributions as a proportion of group results (e.g. sales) or provision of synergies or any particular quantitative data and qualitative analysis justifying special conduciveness of subsidiaries in group results.

61 **Statement of the accounting principles**

A statement of the basic accounting principles followed by the company in the current fiscal years.

62 **Effects of foreign currency fluctuations on operations**

Any comment or discussion of the main impacts of currency fluctuations on operations. That includes quantitative data which may be supported by analysis over the relative significance of these impacts on current or future operations.

63 **Cash-flows**

Information on cash flows. That ranges from basic figures to extensive information, such as cash flow financial statement.

• Market-Related Information

64 **Share price at the year end**

Narrative or graphical declaration of the share price at the year end.

65 **Share price trend**

Narrative or graphical declaration of the trend/movement of share prices for at least one year.

66 **Market capitalisation at the year end**

Narrative or graphical declaration of the market capitalisation at the year end.

67 **Market capitalisation trend**

Narrative or graphical declaration of the trend/movement of market capitalisation for at least one year.

68 **Size of shareholdings**

Information about the specific share proportion held by individuals, directors, institutional investors and by the company.

69 **Type of shareholders**

Classifications of shareholders according to origin (e.g. domestic citizens-foreigners: EU, US) and according to their nature (individuals-institutional investors). Any information which indicates shareholders' profile is regarded as sufficient.

70 **Significant shareholders**

Information about substantial shareholders (as they are defined by ASE to be shareholdings of more than 10%).

71 **Information on new issues**

Any mention or discussion about new issues which may include the relative success or failure to raise projected money. Such information may include the actual money raised and the distribution of it and also the new modulated associations between shareholdings. Projections and discussions of projected new issues are also included.

72 **Dividend policy**

Mention or discussion of specific dividend policy, preferences for a standard dividend or proportion of profits, reasons for changes over dividend payout or any indication revealing such information (e.g. dividend payout ratios of past years).

Appendix 7-IV: Interview Questionnaire

Interview Questionnaire
1. Corporate Directors
1a). What do you think is the main role of the annual report produced by your company? Do you think it meets the information needs of receivers?
1b). What are the motivations/constraints of your company to the extent of disclosure in the annual report? What other factors may influence relevant decisions?
1c). What are the main steps you undertake to prepare the annual report? In this process are there any internal reasons that materially influence the quality of your annual report?
1d). Considering costs and benefits, which are the information items (or themes) you like to emphasise each year and why? Why do you (not) provide information on corporate environment, social responsibility and financial related issues compared to other companies?
1e) What is the credibility of accounting information disclosed?
1f). Do you believe there may be areas where mandated information becomes more controversial? If yes, what are these areas and how do you cope with that?
1g). Are there any other media through which you disclose voluntary information? If yes, what motivated you to do so?
2. Financial Analysts
2a). How much do you rely on annual reports in order to make investment decisions? Which information items (or themes) do you regard as being important in this process?
2b). Do you believe that information provided meets your basic needs for making investment decisions? If not, do you believe that there should be further regulation or would you expect companies to disclose further information voluntarily responding to the increased market pressures?
2c). What are the main reasons for companies producing more informative annual reports? What are the major constraints?
2d). Do you believe annual reports are reliable? How do you establish the credibility of annual reports?
2e). Do you rely on other corporate media? If yes, what are they and how you obtain them?
2f) Why are companies inclined to disclose some types of information and hide some others (comment on that in reference to corporate environment information, social responsibility and financial information)?
3. Regulators
3a). What is your opinion about the level and quality of information provided from annual reports? What would you like to regulate if you could?
3b) What are the main factors that motivate companies to disclose enhanced information?
3c). What is your opinion about the relative credibility of annual reports?
3d). Are you aware of any instance of non-compliance with reporting requirements of any listed company? If yes, what actions were taken?
3e). Do you believe there may be areas where mandated information becomes more controversial? If yes, what are these areas and how do you cope with that?
3f). Do you believe there are shortcomings in the current accounting reporting system? What changes in the regulatory framework do you anticipate in the future?
4. External Auditors
4a). What are the main objectives of annual report for companies listed on the ASE? Based on your experience, do you believe that companies achieve these objectives?
4b). Which do you think are the main reasons that motivate/constrain companies to be more informative in annual reports and to exceed legal requirements?
4c). Is disclosed information credible? How much emphasis do you put on voluntary issues when you audit annual reports?
4d). Do you believe there may be areas where mandated information becomes more controversial? If yes, what are these areas and how do you cope with that?
4e). Do you believe there are shortcomings in the current accounting reporting system? What changes in the regulatory framework do you anticipate in the future? What improvements do you suggest?

5. Bankers
5a). What is your opinion about the role of the annual report of Greek listed companies ?
5b). What do you think motivates listed companies to disclose more or less voluntary information in annual reports?
5c). Do you believe that companies disclose adequate information through the annual reports? if no, why?
5d). Why are companies inclined to disclose some types of information and hide some others (comment on that in reference to corporate environment information, social responsibility and financial information) ?
5e). Do you believe there are shortcomings in the current accounting reporting system? What changes in the regulatory framework do you anticipate in the future? What improvements do you suggest?
5f) Is disclosed information credible? How much you rely on it?

Appendix 8-I: Scores of Disclosure Items

No	Disclosure List	No of Companies disclosing the item	No of Companies item is applicable	Extent of Disclosure
❑	**General Information about the Economic Environment**			
1	Information about the influential activity of the State	45	87	51.72%
2	Information about the economy	55	87	63.22%
3	Information about the industry	66	87	75.86%
4	Specific factors influencing business (technology-EU-politics)	71	87	81.61%
❑	**General Corporate Information**			
5	Brief history of company	20	87	22.99%
6	Financial highlights statement	74	87	85.06%
7	Information on products	69	87	79.31%
8	Discussion on last years performance	80	87	91.95%
9	*Organisational structure*	15	87	17.24%
10	Description of marketing network	31	87	35.63%
11	Overview of the major subsidiaries	55	67	82.09%
12	Forward-looking information	52	87	59.77%
13	Graphs/photos	65	87	74.71%
❑	**Specific Corporate Information**			
14	Statement of strategy and objectives-general	51	87	58.62%
15	Specific statement of strategy and objectives (financial-marketing-social)	75	87	86.21%
16	Impact of strategy on current results	45	87	51.72%
17	Information on acquisitions/expansion of programmes	75	86	87.21%
18	Information on disposals/cessation of prorammes	8	16	50.00%
19	Productive capacity	19	80	23.75%
20	Analysis of subsidiaries (brief history, operations, contribution)	39	67	58.21%
21	Analysis of products	44	87	50.57%
22	Description of capital project committed	69	87	79.31%
23	Analysis of capital projects (quantitative)	63	87	72.41%
❑	**Information about Directors**			
24	Personal characteristics of directors (age, education etc)	5	87	5.75%
25	Position or office held by executive directors	61	87	70.11%
26	Remuneration	13	87	14.94%
❑	**Employee Information**			
27	Information on geographical distribution of employees	7	87	8.05%
28	Line of business distribution of employees (disaggragated)	17	87	19.54%
29	Categories of employees (sex-function-age-education)	6	87	6.90%
30	Categories of employees trained	4	87	4.60%

31	Identification of senior management and their functions	6	87	6.90%
32	Amount spent in training	5	87	5.75%
33	Nature of training	15	87	17.24%
34	Policy on training	15	87	17.24%
35	Number of employees trained	9	87	10.34%
36	Impact of training on results	11	87	12.64%
37	Policy on human resources	27	87	31.03%
38	Data on accidents	4	87	4.60%
39	Safety measures	6	87	6.90%
❑	**Social Policy**			
40	Safety/quality of products (general)	35	87	40.23%
41	Environmental protection programmes-qualitative	13	18	72.22%
42	Environmental protection programmes-quantitative	5	18	27.78%
43	Charitable donations	11	14	78.57%
44	Community programmes	13	16	81.25%
45	Value added information	11	87	12.64%
❑	**Segmental information**			
46	Geographical production	24	76	31.58%
47	Geographical sales disaggregated	43	86	50.00%
48	Line of business production	23	76	30.26%
49	Line of business sales disaggregated	34	87	39.08%
50	Competitor analysis	12	86	13.95%
51	Market share analysis	26	86	30.23%
❑	**Financial ratios**			
52	Profitability ratios	42	87	48.28%
53	Performance ratios	37	87	42.53%
54	Gearing ratios	30	87	34.48%
55	Liquidity ratios	28	87	32.18%
56	EPS	16	87	18.39%
57	Other ratios	51	87	58.62%
❑	**Financial Review**			
58	Qualitative comments on profitability	68	87	78.16%
59	Expenditure on specific marketing projects	10	87	11.49%
60	Contribution of subsidiaries (%)	21	67	31.34%
61	Statement of the accounting principles	14	87	16.09%
62	Effects of foreign currency fluctuations on operations	33	85	38.82%
63	Cash-flows	11	87	12.64%
❑	**Market Related Information**			
64	Share price at the year end	26	87	29.89%
65	Share price trend	24	87	27.59%
66	Market capitalisation at the year end	13	87	14.94%
67	Market capitalisation trend	12	87	13.79%
68	Size of shareholdings	6	87	6.90%
69	Type of shareholders	4	87	4.60%
70	Significant shareholders	4	87	4.60%
71	Information on new issues	31	37	83.78%
72	Dividend policy	53	87	60.92%

Appendix 8-II: Distribution of Companies According to Items Disclosed

Distribution of Companies According to Items Disclosed										
No of Items	GIEE[2] (4)[3]	GCI (9)	SCI (10)	ID (3)	EI (13)	SP (6)	SI (6)	FR (6)	FREV (6)	MRI (9)
0	9	0	3	20	45	49	23	25	9	14
1	9	4	3	55	18	18	21	15	32	35
2	13	7	9	12	7	7	11	6	21	17
3	22	7	5	0	3	3	14	12	18	6
4	34	9	9		2	5	15	10	6	5
5		17	8		4	3	1	13	1	1
6		15	11		4	2	2	6		4
7		15	13		0					4
8		11	16		0					0
9		2	9		2					1
10			1		1					
11					1					
12					0					
13					0					
Total	87	87	87	87	87	87	87	87	87	87

[2] GIEE: General Information about the Economic Environment
GCI: General Corporate Information
SCI: Specific Corporate Information
ID: Information about Directors
EI: Employee Information
SP: Social Policy Information
SI: Segmental Information
FR: Financial Ratios
FREV: Financial Review
MRI: Market Related Information
[3] Number of items included in each category

Appendix 9-I: Correlation Matrix-Conventional Model

	T.AS	TUR	EMP	CAPI	GEA	PROF	LIQ	MAR	VOL	SH.Y	T.RE	L.ST	CON	IND
T.ASS	1.000													
	.													
TUR	.893	1.000												
	.000	.												
EMP	.598	.577	1.000											
	.000	.000	.											
CAPI	.744	.779	.577	1.000										
	.000	.000	.000	.										
GEA	.386	.246	.072	.250	1.000									
	.000	.022	.514	.020	.									
PROF	-.028	.187	-.057	.423	-.186	1.000								
	.799	.083	.601	.000	.087	.								
LIQ	.001	.088	.037	.214	-.186	.424	1.000							
	.992	.419	.732	.046	.087	.000	.							
MAR	.001	.032	-.024	.128	.140	.294	.160	1.000						
	.991	.771	.829	.237	.197	.006	.139	.						
VOL	-.077	-.145	.077	-.165	-.217	-.087	-.038	.287	1.000					
	.478	.180	.482	.127	.044	.424	.729	.007	.					
SH.Y	.271	.344	.172	.494	.255	.415	-.007	.119	-.009	1.000				
	.011	.001	.113	.000	.018	.000	.952	.274	.937	.				
T.RE	.227	.172	.178	.288	.094	.135	.013	.126	-.056	.155	1.000			
	.035	.112	.100	.007	.388	.213	.906	.246	.603	.151	.			
L.ST	-.345	-.291	-.245	-.283	-.053	.035	-.165	.024	.000	-.129	.032	1.000		
	.001	.006	.023	.008	.629	.751	.128	.826	1.000	.235	.767			
CON	-.051	.065	-.094	-.128	-.008	-.199	-.301	-.226	-.256	-.045	.046	.195	1.000	
	.640	.551	.391	.238	.944	.065	.005	.035	.017	.680	.671	.070	.	
IND	.016	.011	.067	.122	-.133	.220	.484	.313	.298	.049	-.004	-.124	-466	1.000
	.884	.918	.541	.259	.221	.040	.000	.003	.005	.649	.968	.252	.000	.

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