Accounting for Financial Instruments: An Analysis of the Determinants of Disclosure in the Portuguese Stock Exchange

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*It is gratefully acknowledged the financial support from Faculdade de Economia do Porto (Portugal) and PRODEP.

Abstract

In this paper we analyse the determinants of disclosure level in the accounting for financial instruments of Portuguese listed companies. Considering the mandatory adoption of International Accounting Standards after 2005, our ultimate objective is to analyse the characteristics of companies that are closest to the disclosure requirements of IAS 32 and IAS 39. We have constructed an index of disclosure comprising 54 items based on IAS 32 and 39 disclosure requirements and computed the index score for each Portuguese listed company based on the analysis of the companies' annual reports. We tested the relation between the index score and several firm-specific characteristics: size, industry, auditor type, listing status, multinationality degree, relationship shareholders/creditors and importance of shareholders. We conclude that larger companies and companies listed in more than one exchange market show higher levels of disclosure, meaning that they are closer to IAS 32 and 39 requirements. We argue that the agency theory, the signalling theory and the political costs theory do not fully explain Portuguese reality, where there is a large degree of family ownership and bank-oriented financing policies. We therefore advocate that the introducing variables related to specific characteristics of Portuguese companies and managers, in the context of other theoretical frameworks, notably the contingency theory, brings important insights to this type of analysis.

Key words: Financial instruments accounting, Disclosure indexes, Firm-specific characteristics, International Accounting, IAS, Portugal

I. Introduction

This research analyses the determinants of disclosure practices in the accounting for financial instruments by Portuguese listed companies. Considering the mandatory adoption of International Accounting Standards after 2005 by listed companies, our ultimate objective is to analyse the characteristics of companies that are closest to the disclosure requirements of the International Accounting Standards related to financial instruments – IAS 32 and IAS 39.

There are several theories that help us to develop hypotheses on the determinants of accounting practices: the positive accounting theory (Leftwich, Watts and Zimmerman (1981) and Watts and Zimmerman (1978)), the signalling theory (Ross (1977)), and legitimacy and institutional theory. These theories are the background of several accounting studies on determinants of accounting choice and disclosure.

Our main research questions are:

> Do theories on disclosure and accounting choice apply to the Portuguese listed companies?
>
> What are the factors that most influence disclosure practices in Portuguese companies?
>
> What will 2005 really mean for Portuguese companies?

In order to address these questions, and based on background theories, prior empirical research and the data collected by the content analysis of companies' annual reports, we have developed several hypotheses relating to firm-specific characteristics that may explain disclosure practices by companies.

The remainder of the paper is organized as follows. Section II presents previous literature related to the determinants of disclosure and compliance. Section III provides a brief regulatory background. Section IV describes the theoretical background and the development of the hypotheses. In Section V, the research design is explained, which includes a description of the dependent and the independent variables, the sample selection process and the sample characteristics. Section VI

gives the main statistical results while Section VII discusses the research results and draws some conclusions.

II. Previous literature

Healy and Palepu (2001) describe the theoretical background to the demand for disclosure (agency conflicts and information asymmetry) and review the empirical disclosure literature. They divide it into four categories: the role of disclosure regulation in reducing information and agency problems; the effectiveness of auditors and information intermediaries; factors affecting decisions by managers on financial reporting and disclosures; and the economic consequences of disclosures. The most relevant category to our study is the one that tries to explain managers' decisions, which has two main areas: (1) focusing on managers' accounting decisions based on the positive theory of accounting and (2) focusing on management disclosure decisions (voluntary disclosure literature, which is complementary to the first one).

Accounting research on the determinants of disclosure practices and other accounting choices based on firm characteristics is a very extensive field. In this literature review, we concentrated on the studies that have addressed the International Accounting Standards or financial instruments accounting[1]. We split this more specific area of research into two groups of empirical studies: one that is focused on the adoption of IAS in which the dependent variable is a dummy variable (type of adopter/non-adopter), and another that tries to quantify the extent of compliance with a single (or a group of) standard(s) and analyse its determinants using disclosure indices.

[1] There are several other studies that, although they have addressed the determinants of disclosure in general (not specifically related to IAS or financial instruments), nevertheless bring insights to our research, especially regarding the choice and measurement of explicative and dependent variables. We refer to some recent studies: Chen and Jaggi (2000)– Hong Kong; Eng and Mak (2003) - Singapore; Cooke (1989)- Sweden, Cooke (1993)- Japan; Hossain, Tan and Adams (1994) – Malaysia; Wallace and Naser (1994)– Spain; Wallace and Naser (1995)– Hong Kong; Gibbins, Richardson and Waterhouse (1990); Frost and Pownall (1994); Gray, Meek and Roberts (1995)– US and UK; Meek and Roberts (1995)– US, UK and Continental Europe; Inchausti (1997) – Spain; Raffournier (1995) – Switzerland; Watson, Shrives and Marston (2002) – UK; Tai, Au-Yeung, Kwok and Lau (1990) – Hong Kong; Ahmed and Nicholls (1994) – Bangladesh; Ali, Ahmed and Henry (2004) – South Asia (India, Pakistan, Bangladesh).
Ahmed and Courtis (1999) paper is a very extensive literature review, which includes several early accounting studies on the determinants (firm's characteristics) of disclosure. It gives a thorough description of each study with respect to sample country, firms and time period, dependent variable(s), independent variables and results.

The first studies include Tarca (2004), Cuijpers, Buijink and Maijoor (2002), Ashbaugh (2001), Murphy (1999), El-Gazzar, Finn and Jacob (1999) and Dumontier and Raffournier (1998). The second group includes Chalmers and Godfrey (2004), Glaum and Street (2003), Street and Bryant (2000), Street and Gray (2001), Abd-Elsalam and Weetman (2003) and Tower, Hancock and Taplin (1999). This paper falls into the second group of studies, since we are developing a disclosure index based on the requirements of IAS 32 and 39.

Table 1 summarises these studies, showing the type of statistical analysis conducted, the explanatory variables adopted and the empirical results.

Table 1: Recent empirical studies on the determinants of accounting choices based on firm's characteristics

	Dependent variable											
	Disclosure indexes						Dummy variable (adopter/non-adopter)					
	Chalmers and Godfrey	**Glaum and Street**	**Abd-Elsalam and Weetman**	**Street and Gray**	**Street and Bryant**	**Tower et al.**	**Cuijpers et al.**	**Ashbaugh**	**Murphy**	**El-Gazzar et al.**	**Dumontier and Raffournier**	**Tarca**
Type of analysis	Univ./ Multiv	Univ/ Multiv	Multiv.	Multiv	Multiv.	Multiv	Multiv. (logistic regression)	Multiv. (logistic regression)	Manova + stepwise discriminant analysis	Multiv (logistic regression)	Univ/ Multiv	Multiv (logistic regression)
Explanatory variables												
Size	**+**	**0**		**0**	**0**	**0**	**+**		**0**		**+**	**+**
Industry	**Y**		**Y/0**	**Y**	**0**	**0**	**0**					**0**
Auditor type	**Y/0**	**Y**	**Y/0**	**Y**					**0**		**Y/0**	
Listing status		**Y**	**Y/0**	**Y**	**Y**		**Y**	**+**		**+**	**Y**	**Y**
Multinationality				**0**			**Y**		**+**	**+**	**+**	**+**
Profitability			**0**	**0**	**0**	**0**					**0**	
Relationship shareholders/ creditors (leverage, gearing, DE)	**0**		**-/0**			**0**	**0**		**0**	**-**	**0**	**0**
Relationship shareholders/managers (ownership structure, market value)	**0/+**		**Y/0**				**0**	**+**	**0**		**+**	
Capital intensity											**0/-**	
Country of origin				**Y**		**Y**	**Y**			**Y**		**Y**
Reputation costs (firm/managers affiliation)	**Y**											
Analysts following	**+**											
Length of time to report						**-**						

Notes: Y statistically significant relationship; + positive relationship; - negative relationship; 0 no relationship

III. Regulatory background

In this section we describe briefly financial instruments accounting rules in Portugal, highlighting the main differences relative to IAS 32 and 39[2].

Regarding measurement criteria in non-financial companies, on-balance sheet financial instruments should be measured at cost (or market value, if it is lower). Future contracts used in trading operations are measured at fair value. The other off-balance sheet financial instruments are not covered by specific accounting rules. This gap is covered by Accounting Directive 18, which establishes compliance with IAS whenever Portuguese standards are not available. So, it may be expected that companies are already adopting some IAS requirements in their accounting for financial instruments.

In financial companies, fair value should be applied to trading securities and to FRAs, futures, options and swaps when used in trading operations. Changes in the fair value should be registered in profits and losses in the period in which they occur. For operations that qualify for hedge accounting, the profits and losses of the hedging instruments and the hedged instruments are registered simultaneously, and the measurement criterion of the hedged position prevails. Regarding disclosure, the list of requirements is already quite demanding, particularly regarding derivatives adoption.

IV. Theoretical background and hypotheses development

Given the Portuguese regulatory background described above, and bearing in mind that the European Union has been stating its goal of accounting harmonization within the member states since 2000 (through the proposal of Regulation[3] requiring all listed companies to prepare their consolidated financial statements based on IAS), it is possible to analyse which companies anticipate IAS requirements especially with respect to financial instruments' disclosure items. Since we are determining if

[2] We have followed the 2000 versions of IAS 32 and IAS 39 because these were the versions operating for financial statements in 2001 (the year of our empirical study).
[3] Now Regulation 1606/2002.

companies are increasing the extent of their disclosures, the theoretical background is provided by voluntary disclosure theories. Verrecchia (2001) extensively reviews and categorises theoretical accounting literature on disclosure in order to develop a theory of disclosure by companies. He concludes that asymmetry reduction is one potential starting point for a comprehensive theory of disclosure.

We argue that there is no single theory of voluntary disclosure. Instead, there are several theories that explain voluntary disclosure by companies: agency theory, political costs theory, signalling theory, legitimacy and institutional theory, proprietary costs theory and contingency theory. These theories have been widely used in a number of empirical studies on the determinants of voluntary disclosure. It has been shown empirically that voluntary disclosure is a complex function of several factors: it depends on both firm-specific factors (internal factors), and external factors, related to the environmental context of the firm, which include, culture, legal system, institutional background, among others. Next we review each of these theories and present some recent empirical voluntary disclosure studies.

Agency theory

The positive accounting theory (Leftwich, Watts and Zimmerman (1981) and Watts and Zimmerman (1978)) uses agency arguments (Jensen and Meckling (1976)) to develop studies on the role of financial accounting in contractual relationships between managers and shareholders. This theory provides hypotheses for testing in empirical studies on accounting method choices and voluntary disclosures. Watts and Zimmerman (1990) state that contracting costs (a wide range of costs that include, besides agency costs, other contractual costs, such as transactions costs, information costs, renegotiation costs and bankruptcy costs) are crucial to models of accounting choice.

According to this theory, accounting information can be seen as the basis for establishing contracts and for controlling these contracts.

It is possible to find several empirical studies of voluntary disclosure that are based on agency arguments. See, for example, Cooke (1989), Cooke (1993), Gray, Meek and

Roberts (1995), Raffournier (1995), Inchausti (1997), Watson, Shrives and Marston (2002), Haniffa and Cooke (2002), Eng and Mak (2003).

Political costs theory

Positive accounting theory also supports the existence of political costs as an explanation for more disclosure. Companies that are politically visible and subject to high political costs are expected to disclose more information. Watts and Zimmerman (1978) argue that the magnitude of political costs is highly dependent on firm size. Size is a proxy variable for political attention. This hypothesis predicts that large firms rather than small firms are likely to use accounting choices that reduce reported profits (Watts and Zimmerman (1990)). Empirical tests of the relation between political costs and disclosure can be found on Cooke (1989), Raffournier (1995) and Inchausti (1997).

Signalling theory

The signalling theory argues that the existence of information asymmetry can also be taken as a reason for good companies to use financial information to send signals to the market (Ross (1977)). Information disclosed by managers to the market reduces information asymmetry and is interpreted as a good signal by the market.

A complementary perspective is derived by Morris (1987), who concludes that combining the agency theory and the signalling theory provides a good theoretical background for studies in accounting policy choices, with specific reference to voluntary disclosures.

Empirically, several studies have studied signalling influence on disclosure: Inchausti (1997), Raffournier (1995), Watson, Shrives and Marston (2002) and Haniffa and Cooke (2002).

Proprietary costs theory

The proprietary costs theory considers the costs of disclosures as well as its benefits. Managers take into account the costs of disclosing information and do not disclose when costs outweigh the benefits. These costs include not only those of preparing and disseminating the information, but also costs of appropriation of the information by

competitors. Investors know this and do not apply adverse selection. Proprietary cost theory applied to disclosure is analytically developed by Verrecchia (1983), Dye (1985), Darrough and Stoughton (1990) and Wagenhofer (1990). Empirically, Prencipe (2004) applies this theory to explain voluntary disclosures on segment reporting.

Cost of capital theory

This theory argues that managers have incentives to provide voluntary disclosure to reduce the information asymmetry problem and consequently reduce the firm's cost of capital. The theoretical background for establishing a relation between disclosure and cost of capital can be found on Baiman and Verrecchia (1996) and Diamond and Verrecchia (1991). For empirical results on the effects of the disclosure on the cost of capital see Leuz and Verrecchia (2000) and Joos (2000). There are several studies that use cost of capital arguments to explain disclosure levels empirically: Cooke (1989), Cooke (1993), Gray, Meek and Roberts (1995), Raffournier (1995) and Haniffa and Cooke (2002).

Legitimacy theory and Institutional theory

Organisations operate within a social framework of norms, values and taken-for-granted assumptions about what constitutes appropriate economic behaviour (Oliver (1991)). Conformity with community values and professional body requirements are also associated with reporting and disclosure practices. Institutional theory predicts that firms adopt structures that are considered legitimate by other firms in their industry/sector, regardless of their usefulness as a means of legitimising their actions. Institutional theory argues that organisations are influenced by legal pressures and regulatory requirements to which they tend to conform for reasons of reputation costs (Chalmers and Godfrey (2004)). Legitimacy theory has been used to analyse social and environmental accounting by companies (Guthrie and Parker (1990)). Institutional theory has been used within public sector entities' studies by Carpenter and Feroz (2001) who provide evidence that institutional theory complements economic theory in explaining accounting choice (namely the adoption of professionally endorsed accounting innovations) within the public sector. There are several studies that test this theory empirically: Gray, Meek and Roberts (1995), Watson, Shrives and Marston (2002) and Chalmers and Godfrey (2004).

Contingency theory

This approach differs from the ones reviewed above. Contingency theory argues that there are other factors besides firm-specific factors that influence disclosure practices. Cultural and institutional environments in which firms operate are decisive in determining accounting choices and disclosure practices. This theory takes on additional importance in studies on international accounting, that is, in studies that cover several countries and study accounting diversity/harmonization among them. Most of the research on cultural influences has relied in Hofstede's framework.

Some analytical work has been done in this area. Gray (1988) developed hypotheses on the association between accounting sub-cultural values and cultural dimensions developed by Hofstede. Fechner and Kilgore (1994) developed a model in which economic and cultural factors appear as the moderators in the relationship between accounting subculture and accounting practice. Basically, this model is a review of the relationships between the variables included in Gray's model. Doupnik and Salter (1995) developed a model that includes three interacting elements which determine accounting practices: external environment, institutional structure and culture.

Nobes (1998) describes a model of international differences in financial reporting based on the different purposes of reporting in each country. The purpose of reporting is determined by the financial system of the country, and disclosure items (which are related to the amount of information) are determined by the relative importance of outsiders (financers who do not belong to the board of directors, including individual shareholders) compared with insiders (financers such as governments, families and banks). In countries where outsiders are important, there is a demand for more disclosure. Nobes concludes with an important implication for our research (p.182):

> "In cultural self-sufficient countries with a credit-insider system, again the rule makers should think carefully before a generalized introduction of Class A (Anglo-Saxon accounting)"

and continues by saying (p. 183):

> "the imposition of Class A might be inappropriate, particularly if done for unlisted companies…It might be better to concentrate on making Class A available by removing any legal or economic barriers to its usage".

These models that incorporate cultural and other environmental factors have been empirically tested by several researchers. Adhikari and Tondkar (1992) refer that (p. 76)

> "a fundamental understanding of the underlying environmental factors that influence accounting reporting and disclosure standards and practices in different countries would be essential in formulating any strategy dealing with accounting diversity"

The determinants factors included in their model are economics factors (country-specific) and equity market forces. They do not include cultural factors because they are difficult to operationalise, but they agree that they affect the level of accounting disclosure requirements of different countries.

In their empirical study, Adhikari and Tondkar do not analyse practices by companies. Instead, they study disclosure requirements in several countries, but they agree that (p. 97):

> "An examination of the level of compliance of companies with stock disclosure requirements in different countries vis-à-vis environmental factors and market pressures should provide a fruitful avenue of research."

Zarzeski (1996) studies the effect of country specific factors on disclosure practices. This study includes market and cultural forces as determinants of disclosure by companies.

The work of Roberts and Salter (1999) is quite interesting regarding the process that underlie the construction of our disclosure index. They studied the factors that influence the attitudes towards the acceptation of uniformity in accounting. The factors studied include cultural and equity market factors.

Chen and Jaggi (2000) study the influence of specific corporate governance factors present in East Asian companies (proportion of independent directors in the corporate board and family ownership) on disclosures comprehensiveness by companies.

Gray and Vint (1995) analyse the disclosure element of Gray's model which hypothesis a link between disclosure and secrecy-transparency dimension, testing empirically the relation between disclosure and uncertainty avoidance, power distance, individualism and masculinity.

Gray, Meek and Roberts (1995) hypothesize (p. 49) that "there may well be persistent country effects as a result of national differences in the factors influencing financial reporting behavior.

Haniffa and Cooke (2002) include in their study corporate governance, cultural and firm-specific factors as determinants of disclosure, arguing that (p. 317) "disclosure practice does not develop in a vacuum, but rather reflects the underlying environmental influences that affect managers and companies in different countries. This study is not a multi-country study; rather it is centered in one country – Malaysia, and incorporates specific elements of corporate governance and culture of this country.

Hussein (1996) tests a proposition on the association between culture and disclosure, based on one dimension of the Hofstede's model of culture – masculinity/femininity.

Jaggi and Low (2000) study the impact of the legal systems (common *versus* code law systems) of the country on financial disclosures by companies. Additionally, they study the impact of cultural values on financial disclosures, separating countries by legal systems.

Salter (1998) studies the effect of economic factors (country specific) and equity market factors on disclosures.

Williams (2004) studies the variation among companies of different countries of a specific disclosure – corporate disclosure on the year 2000 based on the contingency theory. This study includes cultural, economic, political and firm-specific factors as determinants of disclosures.

Archambault and Archambault (2003) argue that they include in their empirical study a larger set of factors that influence disclosure choices. They model disclosure as a function of the cultural system, the national political system, the national economic system, and the corporate financial and economic system, and so (p. 174) "develop a more comprehensive model of the disclosure decision".

Table 2 sums up the above contingency and environment–based models of disclosure practices.

Table 2: Contingency and environment-based studies on the determinants of disclosure

	Factors					
	Cultural	Economic	Equity market	Firm-specific	Political/ legal system	Corporate governance
Haniffa and Cooke (2002)	X			X		X
Adhikari and Tondkar (1992)		X	X			
Zarzeski (1996)	X			X		
Archambault and Archambault (2003)	X	X		X	X	
Gray, Meek and Roberts (1995)			X			
Roberts and Salter (1999)	X		X			
Chen and Jaggi (2000)				X		X
Gray and Vint (1995)	X					
Jaggi and Low (2000)	X		X	X	X	
Hussein (1996)	X					
Salter (1998)		X	X			
Williams (2004)	X	X	X		X	

The hypotheses and the independent variables

Based on theoretical considerations, on previous empirical research, and on the characteristics of the information reported by the sample companies, we have developed the hypotheses described below that relate some firm-specific characteristics to disclosure practices. All hypotheses are stated in alternative form indicating the expected sign of the relationship.

Size

There are several arguments that can be used to link size to disclosure. As Watts and Zimmerman (1990) argue, political costs are higher in larger companies. Consequently, larger firms are more likely to show higher levels of disclosure since it improves confidence and reduces political costs. Secondly, larger firms are supposed to have superior information systems. Consequently, additional disclosure is supposedly less costly in larger firms than in smaller ones. Moreover, proprietary costs related to competitive disadvantages of additional disclosure (Verrecchia (1983)) are smaller as firm size increases.

H1: Larger companies are expected to have higher levels of disclosure than smaller firms

Industry

The relationship between industry and disclosure can be explained by the political costs theory. Watts and Zimmerman (1990) argue that industry membership (being related to size) is related to political costs. Proprietary costs also vary according to industry.

Additionally, companies in the same industry have interests in producing the same level of disclosure as the other companies in the same industry in order to avoid being negatively appreciated by the market (competitive pressures). This argument is in line with the signalling theory.

Legitimacy and institutional theory can also support this hypothesis because some industries have higher institutional pressures than others.

These theoretical considerations do not define the direction of the relationship between disclosure and industry clearly. Therefore, our hypothesis does not indicate an expected sign for the relation.

H2: Disclosure practices are predicted to be related to the industry in which the company operates

Auditor Type

Chalmers and Godfrey (2004) argue that to maintain their reputation and avoid reputation costs, high profile auditing firms are more likely to demand high levels of disclosure of their clients. Dumontier and Raffournier (1998) observe that, in their own interest and for the sake of their reputation, auditors want their clients to comply with complex accounting standards.

This is also linked to the fact that major international auditing firms have greater knowledge about International Standards and so the costs of implementing and auditing them in their clients is lower than for smaller auditing companies.

Auditing is argued to be a way of reducing agency costs (Jensen and Meckling (1976), Watts and Zimmerman (1983)) and so firms that have high agency costs tend to contract high quality auditing firms.

H3: The degree of disclosure is predicted to be higher in companies audited by the Big 5 auditors than in companies with non-Big 5 auditors

Listing Status

The relationship between the firm's listing status and disclosure practices is based on the agency cost and the signalling arguments. Companies listed on multiple or foreign stock exchanges have greater agency problems. Higher disclosure reduces shareholders' monitoring costs. Additionally, in general, foreign investors are unfamiliar with national standards and so internationally listed companies tend to comply with international standards so that their accounts are understood by the majority of potential investors[4].

Companies expect that compliance with IAS and high disclosure levels are interpreted as good signals by the market and so could be a means of obtaining cheaper capital. This argument is even stronger if the company wants to raise its capital in foreign markets (capital-need hypothesis, Cooke (1989)).

H4: The degree of disclosure is predicted to be higher in companies listed on foreign exchanges than in companies listed on only one (its national) stock exchange

Multinationality

This hypothesis is linked to the last one. The more internationalised a company is the more it has to show its stakeholders (customers, suppliers, government) that it is a good company. Even a company that is not listed internationally may have an interest in showing good levels of disclosure if it has international operations.

[4] Many stock exchanges around the world allow foreign companies to prepare their financial statements according to IAS (see IASB site).

Cooke (1989) also argues that companies operating in more than one geographical area tend to have better managerial control systems because of the greater complexity of their operations. So, they are expected to have higher levels of disclosure.

H5: The disclosure degree is predicted to increase with the internationalisation degree of the company

Shareholder/creditor relationship

As higher leverage levels suggest higher agency costs (potential wealth transfers from debtholders to shareholders and managers), compliance with international standards and good disclosure levels can be used to reduce agency costs and information asymmetries[5].

H6: The degree of disclosure is predicted to be higher in companies with higher leverage

Importance of shareholders

The greater the importance of equity the greater the information needs of shareholders and the monitoring costs. So the argument is the same as the one for the agency costs reduction, given above.

H7: The degree of disclosure is predicted to be higher the more the company relies on equity markets

The next table summarizes the hypotheses and the predicted influence over disclosure.

Table 3: Hypotheses

Hypothesis		Expected influence
H1	Size	+
H2	Industry	Y
H3	Auditor Type	+
H4	Listing Status	+
H5	Multinationality	+
H6	Relationship shareholders/creditors	+
H7	Importance of shareholders	+

[5] There are authors who argue exactly the opposite (Zarzeski (1996)) because it is assumed that companies with high leverage ratios belong to bank-oriented financial systems where capital markets are not seen as a primary capital source, and information about companies is more private than public. This argument, however, does not take the public debt into account.

V. Research Design

This study has three main broad research questions:

Do theories on disclosure and accounting choice apply to the Portuguese listed companies?

Which factors most influence disclosure practices in Portuguese companies?

What will 2005 really mean for Portuguese companies?

Based on these broad questions, our immediate research goals are:

- to identify the most important factors associated with the level of financial instruments disclosures and,
- to identify the characteristics of companies that are closest to IAS 32 and 39 requirements.

Next, we describe how we constructed and measured the dependent variable, the proxies for the independent variables, the sample collecting process and the sample's main characteristics.

The dependent variable

Aiming at identifying disclosure practices concerning financial instruments, we applied the content analysis technique to listed companies' annual reports, which were comprehensively analysed. This analysis is based on a list of categories that covered all the items that assist us to identify the existence and content of disclosures required by IAS 32 and IAS 39.

Based on the list of categories used in the content analysis of annual reports, we constructed a disclosure index. This index has eleven main categories of information, which are then subdivided into 54 items. The main categories are designated as follows:

(1) Accounting policies (7 items)
(2) Fair values and market values (9 items)
(3) Securitisation and repurchase agreements (5 items)
(4) Derivatives: Accounting policies (5 items)

(5) Derivatives: Risks (4 items)
(6) Derivatives: Hedging (10 items)
(7) Derivatives: Fair value (4 items)
(8) Interest rate risk (2 items)
(9) Credit risk (3 items)
(10) Collateral (2 items)
(11) Other (3 items)

The detailed components of this index are described in Appendix I.

The construction of the index followed the literature on related areas. The index has three main characteristics. It is (1) dichotomous, (2) unweighted, and (3) adjusted for non-applicable items. These characteristics are now analysed more carefully and our choices considered, based on the literature.

Dichotomous

A score of one is assigned to an item if it is disclosed (disclosure index) and a score of zero otherwise (see Appendix I).

The total score for a company is:

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

where d_i is 1 if item i is disclosed and 0 otherwise; m is the maximum number of items (54).

Unweighted

The total score is calculated as the unweighted sum of the score in each item. The implied assumption is that each item is equally important for all user groups. We are conscious that this assumption may be wrong, but we think that the resulting bias is smaller than the one that would result from attributing subjective weights to each item. Support for this can be found in Robbins and Austin (1986)[6]. Other empirical

[6] They found that (p. 412-413) "the independent variables which were significantly associated with the simple index of disclosure (consists only of the extent of disclosure) quality were also significantly

studies that use the same procedure are Cooke (1989), Cooke (1993), Meek and Roberts (1995), Raffournier (1995), Inchausti (1997) and Chalmers and Godfrey (2004).

Adjusted for non-applicable items

In assigning the score for each item, the applicability of the item to each company was taken into account. That is, we considered that a company should not be penalized if an item is not relevant. This procedure observed maximum caution[7]. We read the entire annual report and if there is no mention of a specific item, we assume that it was not relevant. So a maximum score for each company is calculated as follows:

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

where d_i is the disclosure item, and n is the number of items applicable to that company (n is smaller than 54).

Then an adjusted index is calculated as T/M. This adjustment procedure for non-applicable items is found in most of the empirical studies reviewed (Cooke (1989), Cooke (1993), Meek and Roberts (1995), Raffournier (1995), Inchausti (1997)).

The Independent Variables

According to our hypotheses, the independent variables are size, industry, auditor type, listing status, multinationality, shareholder/creditor relationship and importance of shareholders. Next table describes the proxies for measuring these variables.

associated with the compound index (the product of the extent and relative importance of financial disclosure index)".

[7] We are aware of the subjectivity that can be introduced by this procedure. Regarding the type of instruments and transactions, which are quite new and unknown for some of the sample companies, we believe that by not adjusting for non-applicable items we would introduce a bigger result bias. This situation is the opposite of what we find on Chalmers and Godfrey (2004). There, firms not using derivatives and making no disclosure were considered as non-disclosing firms. The reason is that it is assumed that the majority of firms would be using derivative instruments based on a previous survey.

Table 4: Variables' proxies

Hypothesis	Variables proxies	
Size	Total assets Decimal log of total assets Total sales Decimal log of total sales	Tassets Lassets Tsales Lsales
Industry	1 dummy variable	ind1: Financial (1 = yes; 0 = no)[8]
Auditor type	1 dummy variable	d_aud: Big 5 / Non Big 5 (1 = yes; 0 = no)
Listing status	1 dummy variable	d_list: listed on one stock exchange or not (multilisting) (1= yes; 0=no)
Multinationality	Sales outside Portugal/ Total sales	Mult
Shareholders/creditors	Total liabilities/ Total assets Financial liabilities / Total assets Debt/Equity	Tliab Fliab DE
Shareholders	Market value/ Total assets	MV

Sample selection and characteristics

Our sample includes all companies listed on Euronext Lisbon on the 31st December 2001[9]. Appendix II contains a list of the sample companies and respective economic sector.

At the end of 2001, there were 56 quoted companies in Portugal. One company did not publish an annual report in 2001 and so it was excluded from the sample. Hence, the final sample is comprised of 55 companies, of which 29% are from the industrial sector and 20% from the financial sector.

Table 5: Sample sectoral distribution

Economic sector	N	
Basic materials	7	12,7%
Consumer, cyclical	9	16,4%
Consumer, non-cyclical	4	7,3%
Financial	11	20,0%
Industrial	16	29,1%
Technology	4	7,3%
Telecommunications	3	5,5%
Utilities	1	1,8%
Total	55	100,0%

Next table describes our sample in terms of the independent variables.

[8] From prior research and theoretical considerations there is no consistent approach to subdivide the companies by industry. In this paper, we adopt the classification finance versus non-finance companies according with the expectation from regulation.

[9] We chose the year 2001 because it is the year that IAS 39 became effective and it is the last year for which annual reports had been published when we started the research.

Table 6: Sample descriptive statistics

Continuous variables

	N	Minimum	Maximum	Mean	Std. Deviation
Tassets	55	22,05	358137,51	10833,29	48944,85
Lassets	55	1,34	5,55	2,88	,89
Tsales	55	5,80	34885,49	1720,26	4890,21
Lsales	55	,76	4,54	2,53	,78
Mult	45	,00	93,46	28,84	31,02
Tliab	55	37,91	96,33	72,55	15,06
Fliab	45	,04	63,60	35,25	15,21
DE	55	,61	26,28	4,93	5,51
MV	55	3,36	219,49	37,12	39,95

Dummies

	1	%	0	%
Ind1	11	20	44	80
D_aud	42	76,4	13	23,6
D_list	50	90,9	5	9,1

VI. Results

Descriptive statistics

Table 7 reports the overall means and standard deviations for the dependent variable – the adjusted disclosure index (Idisc_a) and for each of its categories. The range of scores for the disclosure index varied from 16% to 64%.

Table 7: Dependent variable

	Minimum	Maximum	Mean	Std Deviation
Idisc_a	0,16	0,641	0,44	0,09
Disclosure index category				
(1) Accounting policies	,000	1,000	,804	,120
(2) Fair values and market values	,000	,500	,054	,129
(3) Securitisation	,400	,800	,600	,126
(4) Derivatives – Accounting policies	,000	1,000	,590	,334
(5) Derivatives – Risks	,000	1,000	,535	,323
(6) Derivatives - Hedging	,000	1,000	,401	,250
(7) Derivatives – Fair value	,000	,500	,171	,221
(8) Interest rate risk	,000	1,000	,345	,270
(9) Credit risk	,000	1,000	,067	,207
(10) Collateral	,000	1,000	,491	,402
(11) Other	,000	1,000	,494	,101

Analysing Table 7, we conclude that the best area in terms of closeness degree to IAS is the accounting policies adopted item (non-derivatives and derivatives financial

instruments). The worst areas in terms of degree of closeness to IAS are the items fair/market values (non-derivatives and derivatives financial instruments), hedging related items, interest rate risk and credit risk item.

The next table shows the mean of the index of disclosure by economic sector, by type of auditor and by listing status.

Table 8: Dependent variable means by economic sector, auditor type and listing status

	Disclosure index	
Economic sector	Mean	Std. Deviation
Basic materials	,435	,038
Consumer, cyclical	,422	,071
Consumer, non-cyclical	,465	,101
Financial	,446	,156
Industrial	,440	,081
Technology	,471	,048
Telecommunications	,394	,071

	Disclosure index	
Auditor Type	Mean	Std. Deviation
Non- big five auditor	,399	,085
Big five auditor	,451	,091
Listing Status		
One or more foreign stock exchange	,537	,056
Portuguese stock exchange	,429	,089

The correlations between variables are shown on the Appendix III. The correlation between the independent variables and the disclosure index is significant at the 5% level for Lassets, Sales, Lsales and D_list variables.

Simple regressions

The results obtained by simple regressions are shown in the next table.

Table 9: OLS simple regressions
(White Heteroskedasticity-Consistent Standard Errors and Covariance, when necessary)

Hypothesis	**Variable**	**Coefficient**	**t-Statistic**
H1	Tassets	4.61E-07	4.100543*
	Lassets	0.028161	1.727345***
	Tsales	5.09E-06	2.050536**
	Lsales	0.035246	2.286460**
H2	Ind1	0.008909	0.285146
H3	D_aud	0.052654	1.845112***
H4	D_list	-0.107740	-2.633464**
H5	Mult	1.863E-04	0.469
H6	Tliab	0.000648	0.777255
	Fliab	1,093E-04	0.157
	DE	0.003690	1.010319
H7	MV	-.000196	-.622468

* significant at 1%; ** significant at 5%; *** significant at 10%. Two-tailed tests.

Three hypotheses are statistically validated. The first is H1 which relates the firm size to disclosure level. All measures of size are statistically significant and the sign of the coefficient is positive as predicted. There is also a significant relationship between being audited by a big-five company and the level of disclosure, confirming H3. Being listed in more than one stock exchange influences the level of disclosure as predicted by H4. Firms that are listed only in the Portuguese exchange disclose less than firms with multilisting status.

Multiple regressions

The different measures for size are highly correlated, and so we decided to run a regression for each measure of size, denominated model 1 and 2 (Cooke (1989)). This would enable us to know which measure is preferable.

First, we tested all hypotheses, entering all independent variables at once in the model, and tested several functional forms. The results of the multiple regressions are reported in the next tables. Three independent variables proved to be statistically significant: Size (measured either by Tassets – model 1 or Tsales – model 2), listing status and leverage degree (measured by DE). The sign of the coefficients for Tassets and Tsales follows our expectation and suggests that larger firms show higher levels of disclosure. The coefficient of D_list also confirms our hypothesis that companies listed on more than one exchange have higher disclosure. Firms with higher leverage degree also proved to have a higher level of disclosure. In sum, our results confirm three hypotheses: H1, H4 and H6. The results of the regression do not support the type of industry (H2), the type of auditor (H3), the internationality degree (H5) and the shareholder importance (H7) effects.

Table 10: Regression results

Independent variable	**Model 1** Coefficient (Prob.)	**Model 2** Coefficient (Prob.)
TASSETS	2.55E-07 *(0.0200)*	
TSALES		3.22E-06 *(0.0178)*
IND1	-0.100311 *(0.1150)*	-0.098237 *(0.1083)*
D_AUD	0.019097 *(0.4579)*	0.017414 *(0.4971)*
D_LIST	-0.070751 *(0.0146)*	-0.061794 *(0.0501)*
MULT	-4.36E-05 *(0.9195)*	-6.51E-05 *(0.8796)*
DE	0.009964 *(0.0443)*	0.009725 *(0.0451)*
MV	0.000341 *(0.2877)*	0.000349 *(0.2781)*
	Adj R-squared: 0.146930	Adj R-squared: 0.157134

Note: White Heteroskedasticity-Consistent Standard Errors & Covariance

Next, we performed stepwise regression with backward elimination. This method involves computing a regression equation with all the predictor variables, then going back and deleting independent variables that do not contribute significantly. A critical value of 0.1 for the t statistic has been established.

The results for the model using Tassets[10] as size measure are shown in the next table. The other independent variable included are: ind1, d_aud, d_list, Mult, DE, MV. Based on significance level of 0.10 and adopting stepwise regression with backward elimination the selected variables were Tassets and d_list.

Overall, we conclude that the factors that most influence the level of disclosure are: size of the company and listing status. The leverage degree also appeared to be significant within the multiple regression, but when using the stepwise method the variable used to proxy it was dropped.

[10] We performed stepwise regression to estimate three other models, each one with the other three measures of size (Lassets, Tsales and Lsales). The results obtained in terms of the explicative variables of the final models were much alike among them: the variables selected were the variable for size and D_list, except in the model with Lassets, in which D_list was the only variable selected.

Thus, the above analysis allows us to confirm hypotheses H1 and H4. H6 is not confirmed by all regressions. The results of the regressions could not support H2, H3, H5 and H7.

VII. Discussion and Conclusions

In order to identify the determinants of disclosure by the Portuguese listed companies, we constructed an index of disclosure issues, which comprises 54 items relating to financial instruments. The components of the index are based on IAS 32 and 39 disclosures. This type of analysis allows the characteristics of the firms that are closest to IAS requirements to be analysed, considering the mandatory adoption of those standards after 2005.

The findings yield interesting results. We conclude that disclosure level is significantly related to size, listing status and leverage degree. As expected, the results show a positive relation to size and leverage degree. When it comes to listing status, the results confirm that companies listed on more than one exchange show higher disclosure level. Overall, we conclude that larger companies, higher leverage companies and companies listed on more than one exchange market present higher levels of disclosure regarding their financial instrument adoption, meaning that they are closer to the IAS 32 and 39 requirements. The type of auditor while showed itself significant in univariate analysis, in the multivariate analysis, it was not possible to confirm this hypothesis. The other independent variables were found to have no significant relationship with the disclosure level. Our sectoral dummy variable that distinguishes financial companies from non-financial ones was not found to be significant. The same was true of the hypothesis that related disclosure level to the importance of shareholders, measured by the ratio of market capitalization to the total assets. The degree of multinationality, measured by the ratio of sales to international markets to total sales, does not influence a company's degree of disclosure.

These results suggest that voluntary disclosure theories, originated in developed capital markets, probably do not apply fully to Portugal, where there is a quite large degree of family ownership and bank-oriented financing policies. We argue that the agency theory, the signaling theory and the political costs theory cannot be completely

applied in the Portuguese context. The influence of size may be explained more by other reasons, related to the proprietary costs of disclosure (larger firms have lower proprietary costs for information disclosure), than by agency reasons. We think, therefore, that the inclusion of other variables, which emphasize characteristics specific to Portuguese companies and Portuguese managers, in the context of other theoretical frameworks, namely, contingency theory, could bring some new insights to this study.

There are some limitations inherent to this study. First, there is the problem of the sample size. This problem, which is intrinsic to Portuguese capital market size, restricts our hypotheses testing by means of linear regression models. Another limitation results from the index construction process. We were very careful with the scoring process, but errors may have occurred. Furthermore, annual reports are not the only means by which companies disclose financial instruments. But we think that it is the most important one.

The next phase of this research will extend the study to other European countries in order to ascertain and compare the degree of financial instrument disclosure in other countries that are affected by the 2005 accounting regulation. The determination of accounting practices in a multi-country sample, allowing the inclusion of explicative factors based on contingency theory, should lead to more productive conclusions.

Appendix I–Components of the disclosure index

Disclosure Index

	Score (if disclosed)
Accounting Policies	
Held for trading securities	1
Held-to-maturity securities	1
Loans and receivables originated by the enterprise	1
Available-for-sale financial assets	1
Held-for-trading liabilities	1
Other financial liabilities	1
Trade date vs Settlement date	1
Fair values and market values	
Measurement method	1
Significant assumptions	1
Fair value changes in Available-for-sale financial assets	1
Amount recognised in equity	1
Amount removed from equity	1
Unability of reliability in measurement	
Financial assets description	1
Their carrying amount	1
Explanation of the reason	1
Range of estimates within which the fair value is likely to lie	1
Securitisation and repurchase agreements	
Accounting policy	1
Nature and extent	1
Collateral	1
Whether the financial assets have been derecognised	1
Information about the key assumptions used in calculating the fair value of new and retained interests	1
Derivatives – Accounting policies	
Risk management policy, including hedging policy	1
Objectives of holding or issuing derivatives	1
Accounting policies and methods adopted	1
Monitoring and controlling policy	1
Financial controls	1
Derivatives – Risks	
Segregation by risk categories	1
Principal, stated value, face value, notional value	1
Maturity	1
Weighted average/effective interest rate	1
Derivatives – Hedging	
Hedging description	1
Accounting method	1
Financial instruments designated as hedging instruments	1
Fair values	1
Nature of the risks being hedged	1
Future transactions hedging	
The period in which forecasted transactions are expected to occur	1
The period they are expected to enter in income	1
Cash-flow hedging	
The amount recognised in equity	1
The amount removed from equity and recognised in income	1
The amount removed from equity and added to initial measurement of the acquisition cost	1
Derivatives – Fair value	
Fair value	1

Method adopted	1
Significant assumptions	1
Average fair value during the year	1
Interest rate risk	
Future changes in interest rates	1
Maturity dates	1
Credit risk	
Counterparties identification	1
Maximum amount of credit risk exposure	1
Significant concentration of credit risk	1
Collateral	
Terms and conditions	1
Carrying amount and fair value	1
Other	
Impairment losses	1
Total interest income and total interest expense (separately)	1
In AFS, realized and unrealized gains/losses (separately)	1
Total Score	54

Appendix II – Sample companies in alphabetic order

Company Name	Economic Sector	Company Name	Economic Sector
Barbosa & Almeida	Industrial	ITI	Consumer, cyclical
BANIF	Financial	Jerónimo Martins	Consumer, non-cyclical
BCA	Financial	LISGRAFICA	Consumer, cyclical
BCP	Financial	Mota-Engil	Industrial
BES	Financial	Mundicenter	Financial
BPI	Financial	NOVABASE	Technology
BRISA	Industrial	Soc. Comercial Orey Antunes	Industrial
BSCH	Financial	Papelaria Fernandes	Consumer, cyclical
Banco Totta & Açores	Financial	PARAREDE	Technology
Corticeira Amorim	Industrial	PORTUCEL Produtora de Pasta e Papel	Basic materials
Companhia de Celulose do Caima	Industrial	PT Multimédia.Com	Technology
CENTRAL - Banco de Investimento	Financial	PT Multimédia	Consumer, cyclical
CIMPOR	Industrial	REDITUS	Technology
CIN	Basic materials	Salvador Caetano	Industrial
CIRES	Basic materials	Soares da Costa	Industrial
COFINA	Basic materials	SAG GEST	Consumer, cyclical
COMPTA	Technology	SEMAPA	Industrial
Modelo Continente	Consumer, non-cyclical	SOMAGUE	Industrial
EDP	Utilities	SONAE Indústria	Industrial
EFACEC	Industrial	SONAE SGPS	Consumer, non-cyclical
Estoril - Sol	Consumer, cyclical	SONAE.COM	Telecommunications
F.Ramada	Basic materials	SUMOLIS	Consumer, non-cyclical
FINIBANCO	Financial	Teixeira Duarte	Industrial
FISIPE	Basic materials	Portugal Telecom	Telecommunications
Grão-Pará	Industrial	TERTIR	Industrial
IBERSOL	Consumer, cyclical	Vista Alegre Atlantis	Consumer, cyclical
IMOLEASING	Financial	Vodafone Telecel	Telecommunications
IMPRESA	Consumer, cyclical		
INAPA	Basic materials		

Appendix III

Correlations of the independent variables

		Tassets	Lassets	Sales	Lsales	Ind1	Ind2	D_aud	D_list	Mult	Tliab	Fliab	DE
Lassets	Pearson Correl.	,550**											
	Sig. (2-tailed)	,000											
Sales	Pearson Correl.	,965**	,646**										
	Sig. (2-tailed)	,000	,000										
Lsales	Pearson Correl.	,462**	,888**	,605**									
	Sig. (2-tailed)	,000	,000	,000									
Ind1	Pearson Correl.	,377**	,489**	,324*	,180								
	Sig. (2-tailed)	,005	,000	,016	,188								
Ind2	Pearson Correl.	-,062	-,131	-,049	-,105	-,191							
	Sig. (2-tailed)	,651	,340	,722	,446	,163							
D_aud	Pearson Correl.	,098	,362**	,150	,418**	,064	-,044						
	Sig. (2-tailed)	,477	,007	,274	,001	,641	,748						
D_list	Pearson Correl.	-,556**	-,592**	-,584**	-,511**	-,316*	-,069	-,176					
	Sig. (2-tailed)	,000	,000	,000	,000	,019	,617	,199					
Mult	Pearson Correl.	,177	,166	,205	,311*	-,229	-,231	,111	-,122				
	Sig. (2-tailed)	,246	,277	,178	,038	,131	,126	,470	,426				
Tliab	Pearson Correl.	,255	,490**	,272*	,383**	,537**	-,404**	,151	-,184	-,127			
	Sig. (2-tailed)	,060	,000	,045	,004	,000	,002	,273	,178	,407			
Fliab	Pearson Correl.	,098	,279	,139	,159	,098	-,348	-,113	-,070	-,018	,447**		
	Sig. (2-tailed)	,523	,063	,361	,298	,520	,019	,460	,650	,914	,002		
DE	Pearson Correl.	,288*	,604**	,279*	,398**	,767**	-,239	,117	-,284*	-,132	,771**	,381**	
	Sig. (2-tailed)	,033	,000	,039	,003	,000	,079	,396	,036	,386	,000	,010	
MV	Pearson Correl.	-,121	-,198	-,108	-,058	-,258	,515**	,194	,009	-,126	-,540**	-,400**	-,374**
	Sig. (2-tailed)	,380	,148	,432	,673	,057	,000	,155	,949	,409	,000	,007	,005

Correlations of the dependent and independent variables

		Tassets	Lassets	Sales	Lsales	Ind1	Ind2	D_aud	D_list	Mult	Tliab	Fliab	DE	MV
Idisc_a	Pearson Correl.	,246	,275*	,272*	,301*	,04	-,004	-,246	-,341*	,071	,107	,024	,221	-,085
	Sig. (2-tailed)	,07	,042	,045	,026	,775	,978	,077	,011	,641	,437	,876	,104	,538

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

References

ABD-ELSALAM, O., and P. WEETMAN (2003): "Introduction International Accounting Standards to an Emerging Capital Market: Relative Familiarity and Language Effect in Egypt", *Journal of International Accounting, Auditing and Taxation*, Vol. 12, 63-84.

ADHIKARI, A., and R. TONDKAR (1992): "Environmental Factors Influencing Accounting Disclosure Requirements of Global Stock Exchanges", *Journal of International Financial Management and Accounting*, Vol. 4, 2, 75-105.

AHMED, K., and J. COURTIS (1999): "Associations between Corporate Characteristics and Disclosure Levels in Annual Reports: A Meta-Analysis", *The British Accounting Review*, Vol. 31, 1, 35-61.

AHMED, K., and D. NICHOLLS (1994): "The Impact of Non-Financial Company Characteristics on Mandatory Disclosure Compliance in Developing Countries: The Case of Bangladesh." *International Journal of Accounting*, Vol. 29, 1, 62-67.

ALI, M., K. AHMED, and D. HENRY (2004): "Disclosure Compliance with National Accounting Standards by Listed Companies in South Asia", *Accounting and Business Research*, Vol. 34, 3, 188-199.

ARCHAMBAULT, J., and M. ARCHAMBAULT (2003): "A Multinational Test of Determinants of Corporate Disclosure", *International Journal of Accounting*, Vol. 38, 2, 173-194.

ASHBAUGH, H. (2001): "Non-Us Firms' Accounting Standard Choices", *Journal of Accounting and Public Policy*, Vol. 20, 2, 129-153.

BAIMAN, S., and R. E. VERRECCHIA (1996): "The Relation among Capital Markets, Financial Disclosure, Production Efficiency, and Insider Trading", *Journal of Accounting Research*, Vol. 34, 1, 1-22.

CARPENTER, V., and E. FEROZ (2001): "Institutional Theory and Accounting Rule Choice: An Analysis of Four US State Governments' Decisions to Adopt Generally Accepted Accounting Principles", *Accounting, Organisations and Society*, Vol. 26, 565-596.

CHALMERS, K., and J. GODFREY (2004): "Reputation Costs: The Impetus for Voluntary Derivative Financial Instrument Reporting", *Accounting, Organisations and Society*, Vol. 29, 2, 95-125.

CHEN, C., and B. JAGGI (2000): "Association between Independent Non-Executive Directors, Family Control and Financial Disclosures in Hong Kong", *Journal of Accounting and Public Policy*, Vol. 19, 4-5, 285-310.

COOKE, T. E. (1989): "Voluntary Corporate Disclosure by Swedish Companies", *Journal of International Financial Management and Accounting*, Vol. 1, 2, 171-195.

— (1993): "Disclosure in Japanese Corporate Annual Reports", *Journal of Business Finance and Accounting*, Vol. 20, 4, 521-535.

CUIJPERS, R., W. BUIJINK, and S. MAIJOOR (2002): "Voluntary Adoption of Non-Local GAAP in the European Union: A Study of Determinants", *Working paper, University of Maastricht*.

DARROUGH, M. N., and N. M. STOUGHTON (1990): "Financial Disclosure Policy in an Entry Game", *Journal of Accounting and Economics*, Vol. 12, 1-3, 219-243.

DIAMOND, D. W., and R. E. VERRECCHIA (1991): "Disclosure, Liquidity, and the Cost of Capital", *Journal of Finance*, Vol. 46, 4, 1325-1360.

DOUPNIK, T., and S. SALTER (1995): "External Environment, Culture and Accounting Practice: A Preliminary Test of a General Model of International Accounting Development", *International Journal of Accounting*, Vol. 30, 3, 189-206.

DUMONTIER, P., and B. RAFFOURNIER (1998): "Why Firms Comply Voluntarily with IAS: An Empirical Analysis with Swiss Data", *Journal of International Financial Management and Accounting*, 9, 3, 216-245.

DYE, R. A. (1985): "Disclosure of Nonproprietary Information", *Journal of Accounting Research*, Vol. 23, 1, 123-145.

EL-GAZZAR, S., P. FINN, and R. JACOB (1999): "An Empirical Investigation of Multinational Firms' Compliance with International Accounting", *International Journal of Accounting*, Vol. 34, 2, 239-248.

ENG, L. L., and Y. T. MAK (2003): "Corporate Governance and Voluntary Disclosure", *Journal of Accounting and Public Policy*, Vo. 22, 325-345.

FECHNER, H., and A. KILGORE (1994): "The Influence of Culture Factors on Accounting Practice", *International Journal of Accounting*, Vol. 29, 3, 265-277.

FROST, C., and G. POWNALL (1994): "Accounting Disclosure Practices in the United States and the United Kingdom", *Journal of Accounting Research*, Vol. 32, 1, 75-102.

GIBBINS, M., A. RICHARDSON, and J. WATERHOUSE (1990): "The Management of Corporate Financial Disclosure: Opportunism, Ritualism, Policies and Processes", *Journal of Accounting Research*, Vol. 28, 1, 121-143.

GLAUM, M., and D. STREET (2003): "Compliance with the Disclosure Requirements of Germany's New Market: IAS Versus US GAAP", *Journal of International Financial Management and Accounting*, Vol. 14, 1, 65-100.

GRAY, S. J. (1988): "Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally", *Abacus*, Vol. 24, 1, 1-15.

GRAY, S. J., G. MEEK, and C. ROBERTS (1995): "International Capital Market Pressures and Voluntary Annual Report Disclosures by US and UK Multinationals", *Journal of International Financial Management and Accounting*, Vol. 6, 1, 43-68.

GRAY, S. J., and H. VINT (1995): "The Impact of Culture on Accounting Disclosures: Some International Evidence", *Asia-Pacific Journal of Accounting*, Vol. 2, December, 33-43.

GUTHRIE, J., and L. PARKER (1990): "Corporate Social Disclosure Practice: A Comparative International Analysis", *Advances in Public Interest Accounting*, Vol. 3, 159-175.

HANIFFA, R., and T. COOKE (2002): "Culture, Corporate Governance and Disclosure in Malaysian Corporations", *Abacus*, Vol. 38, 3, 317-349.

HEALY, P., and K. PALEPU (2001): "Information Asymmetry, Corporate Disclosure and the Capital Markets: A Review of the Empirical Disclosure Literature", *Journal of Accounting and Economics*, Vol. 31, 1-3, 405-440.

HOSSAIN, M., L. M. TAN, and M. ADAMS (1994): "Voluntary Disclosure in an Emerging Capital Market: Some Empirical Evidence from Companies Listed on the Kuala Lumpur Stock Exchange ", *International Journal of Accounting*, Vol. 29, 4, 334-352.

HUSSEIN, M. (1996): "A Comparative Study of Cultural Influences on Financial Reporting in the Us and the Netherlands", *International Journal of Accounting*, Vol. 31, 1, 95-120.

INCHAUSTI, B. G. (1997): "The Influence of Company Characteristics and Accounting Regulation on Information Disclosed by Spanish Firms", *European Accounting Review*, Vol. 6, 1, 45-68.

JAGGI, B., and P. LOW (2000): "Impact of Culture, Market Forces and Legal System on Financial Disclosures", *International Journal of Accounting*, Vol. 35, 4, 495-519.

JENSEN, M., and W. MECKLING (1976): "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure", *Journal of Financial Economics*, Vol. 3, 305-361.

JOOS, P. (2000): "Discussion of the Economic Consequences of Increased Disclosure", *Journal of Accounting Research*, Vol. 38, Supplement, 125-136.

LEFTWICH, R. W., R. L. WATTS, and J. L. ZIMMERMAN (1981): "Voluntary Corporate Disclosure: The Case of Interim Reporting", *Journal of Accounting Research*, Vol. 19, Issue 3 Supplement, 50-77.

LEUZ, C., and R. VERRECCHIA (2000): "The Economic Consequences of Increased Disclosure", *Journal of Accounting Research*, Vol. 38, Supplement, 91-124.

MEEK, G., and C. ROBERTS (1995): "Factors Influencing Voluntary Annual Report Disclosures by UK, UK, and Continental European Multinational Corporations", *Journal of International Business Studies*, 26, 3, 555-572.

MORRIS, R. (1987): "Signalling, Agency Theory and Accounting Policy Choice", *Accounting and Business Research*, Vol. 18, 69, 47-56.

MURPHY, A. (1999): "Firm Characteristics of Swiss Companies That Utilize International Accounting Standards", *International Journal of Accounting*, Vol.34, 1, 121-131.

NOBES, C. (1998): "Towards a General Model of the Reasons for International Differences in Financial Reporting", *Abacus*, Vol. 34, 2, 162-187.

OLIVER, C. (1991): "Strategic Responses to Institutional Processes", *Academy of Management Review*, Vol. 16, 1, 145-179.

PRENCIPE, A. (2004): "Proprietary Costs and Determinants of Voluntary Segment Disclosure: Evidence from Italian Listed Companies", *European Accounting Review*, Vol. 13, 2, 319-340.

RAFFOURNIER, B. (1995): "The Determinants of Voluntary Financial Disclosure by Swiss Listed Companies", *European Accounting Review*, Vol. 4, 2, 261-280.

ROBBINS, W., and K. AUSTIN (1986): "Disclosure Quality in Governmental Financial Reports: An Assessment of the Appropriateness of a Compound Measure", *Journal of Accounting Research*, Vol. 24, 2, 412-421.

ROBERTS, C., and S. SALTER (1999): "Attitudes towards Uniform Accounting: Cultural or Economic Phenomena?" *Journal of International Financial Management and Accounting*, Vol. 10, 2, 121-142.

ROSS, S. A. (1977): "The Determination of Financial Structure: The Incentive-Signalling Approach", *Bell Journal of Economics*, Vol. 8, 1, 23-40.

SALTER, S. (1998): "Corporate Financial Disclosure in Emerging Markets: Does Economic Development Matter?" *International Journal of Accounting*, Vol. 33, 2, 211-234.

STREET, D., and S. BRYANT (2000): "Disclosure Level and Compliance with IASs: A Comparison of Companies with and without US Listings and Fillings", *International Journal of Accounting*, Vol. 35, 3, 305-329.

STREET, D., and S. GRAY (2001): "Observance of International Accounting Standards: Factors Explaining Non-Compliance", *ACCA Research Report nº 74*, Certified Accountants Educational Trust, London.

TAI, B. Y. K., P.-K. AU-YEUNG, M. C. M. KWOK, and L. W. C. LAU (1990): "Non-Compliance with Disclosure Requirements in Financial Statements: The Case of Hong Kong Companies." *International Journal of Accounting*, Vo. 25, 2, 99-112.

TARCA, A. (2004): "International Convergence of Accounting Practices: Choosing between IAS and US GAAP", *Journal of International Financial Management and Accounting*, Vol. 15, 1, 60-91.

TOWER, G., P. HANCOCK, and R. TAPLIN (1999): "A Regional Study of Listed Companies' Compliance with International Accounting Standards", *Accounting Forum*, Vol. 23, 3, 293-305.

VERRECCHIA, R. (1983): "Discretionary Disclosure", *Journal of Accounting and Economics*, Vol. 5, 3, 179-194.

— (2001): "Essays on Disclosure", *Journal of Accounting and Economics*, Vol. 32, 97-180.

WAGENHOFER, A. (1990): "Voluntary Disclosure with a Strategic Opponent", *Journal of Accounting and Economics*, Vol. 12, 4, 341-363.

WALLACE, R. S. O., and K. NASER (1994): "The Relationship between the Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain", *Accounting and Business Research*, Vol. 25, 97, 41-53.

— (1995): "Firm-Specific Determinants of the Comprehensiveness of Mandatory Disclosure in the Corporate Annual Reports of Firms Listed on the Stock Exchange of Hong Kong", *Journal of Accounting and Public Policy*, Vol. 14, 4, 312-369.

WATSON, A., P. SHRIVES, and C. MARSTON (2002): "Voluntary Disclosure of Accounting Ratios in the UK", *The British Accounting Review*, Vol. 34, 4, 289-313.

WATTS, R., and J. ZIMMERMAN (1978): "Towards a Positive Theory of the Determination of Accounting Standards", *The Accounting Review*, Janeiro, Vol. 53, 1, 112-134.

— (1983): "Agency Problems, Auditing and the Theory of the Firm: Some Evidence", *The Journal of Law and Economics*, Vol. 26, 3, 613-633.

— (1990): "Positive Accounting Theory: A Ten Year Perspective", *The Accounting Review*, Janeiro, Vol. 65, 1, 131-156.

WILLIAMS, S. M. (2004): "An International Investigation of Associations between Societal Variables and the Amount of Disclosure on Information Technology and Communication Problems: The Case of Y2k", *International Journal of Accounting*, Vol. 39, 71-92.

ZARZESKI, M. T. (1996): "Spontaneous Harmonization Effects of Culture and Market Forces on Accounting Disclosure Practices", *Accounting Horizons*, Vol. 10, 1, 18-37.