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*‘Measuring investors’ reaction to the adoption of
I.F.R.S in Greece using a market-based model’*

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Abstract

Since the 12th century, when historically begun the attempt for the systematic monitoring of banking transactions, the nature of accounting science has taken many forms. At the beginning of this era, the transactions that posted in the accounting books pertained mainly to not only reckonings concerning the enterprises but also transactions between companies and their operators. The publication of '*Summa de Arithmetica, Geometria, Proprionalita*' by Fra Luca Paciolo –a dissertation about Geometry -and especially the chapter '*Tractatus de computis et scripturis*' bespoke the first known article about the double entry method(Zan,1994). In the end of 18th century, the segregation has started between companies and operators due to the development of corporate shapes where the owner did not have direct interference in the management. The need for external financing and the uptake of long term projects have led to more accurate information such as the annual determination of economic results. The last period of the accounting thought, which has begun in the beginning of the 20th century, was influenced by the massive economic development of the U.S.A and the Western European countries. The exertion of managers to compress the production cost led to the creation of Management Accounting and Cost Accounting (Kaplan, 1984).

The internationalization of transactions, the creation of multinational companies and the need of companies to compile consolidated financial statements along with the need to provide quality information to investors in order to avoid scandals like Enron have made accounting a more systematic science and especially a science that over these past centuries at last its social –economic role in countries has been realized (Gray, 2002).

The purpose of the beyond dissertation is to highlight the main differences between International Accounting Standards and Greek accounting , moreover, 90 randomly selected Greek companies which are listed in Athens Stock Exchange were scrutinized concerning the differences in financial figures which have been appeared due to the adoption of I.F.R.S. Finally the paper will provide evidence that the differences in valuation of the above companies along with the classic C.A.P.M can explain the fluctuations in share prices concerning the fiscal year of 2005-2006.

In order to provide the necessary theoretical background, the research will begin with a literature review concerning accounting practices in Greece before the

adoption of I.F.R.S. Also the scrutiny will expand to other European countries in order to depict the entire impact of the adoption in Europe.

The second part will highlight the market's reaction to the adoption using a stochastic model. Hypotheses are going to be presented and the results of the statistical analysis are going to be discussed.

Keywords: *Adoption of I.F.R.S, C.A.P.M, Investors' reaction, Z-score, Greek accounting.*

Introduction

One of the basic laws of nature is that economic activities followed social evolution. At the beginning of the previous century, the necessity for rapid growth led humanity to pass from the Middle Age to Industrial Age. However, nowadays the society is passing in the Information age and globalization. Keeping pace with social evolution the principles of accounting developed after a long term evolution, as it is mentioned in the abstract, experience and implementation in real cases and are corollary of continuous changes in commercial and industrial environment. In developed countries the principles of accounting are digested and classified from special accounting bodies that are structured for the above reason (Armstrong, 1985). In Greece unfortunately there is no such an organization in order to preserve and to develop General Accepted methods. Nevertheless in previous years the Body of chartered Auditors, which was established in 1955, and the National Council of Accounting – it is worth to mention that the profession of chartered accountant /auditor in Greece is now independent, baring in mind that the above mentioned bodies were governmental organizations – were intensified their efforts vis-à-vis with the financial statements of listed companies (Lawrence, 1996).

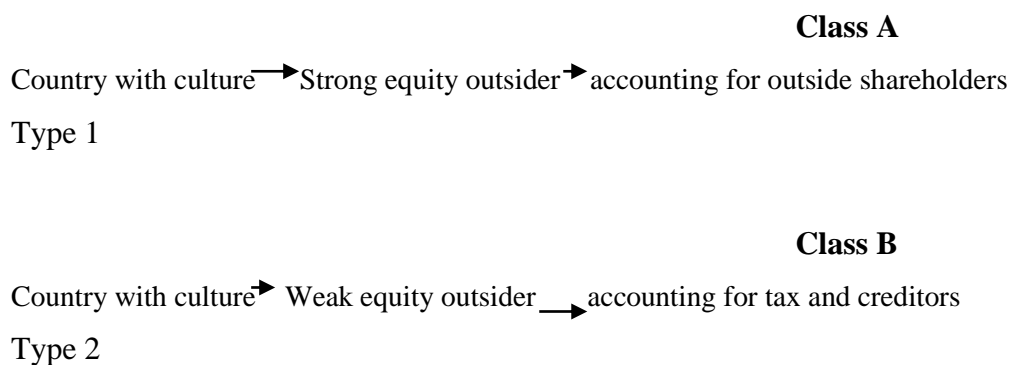
Traditionally, the profession of accountancy in Greece was related to tax authorities. Baring in mind that the development of the accounting theory and the Greek accounting methods were influenced mainly through laws like the Commercial Law and 2190/1920, which is about incorporated companies, accountants' aim were to prepare the accounting books in order to be audited by tax authorities. The interventions of tax legislations and the old law of 1920 along with the taste of the management of each company to obscure taxable capacity infringed the accounting principles and adulterated financial statements (Brugge, 1963).

After the entry of Greece in European Union and with the escalating competition among European and international companies, became more sensible that accounting is not only for tax purposes but also to contribute efficiently to better management of companies. Before this research proceeds to the examination of International Accounting Standards, it is crystal clear that a closer look to the abandoned Greek accounting based on General Accounting Plan has to be done in order to understand why Greece and other European countries had implemented I.F.R.S.

Greek accounting

Nobes (1998) proposed a theoretical framework which classified countries based on their financial reporting system. According to the model, organizations which operate on countries where the value of equity is distributed among a large number of shareholders structured their accounting systems in order to provide valid information to investors. On the other hand, when companies are controlled by a small number of shareholders adopt accounting systems which provide information for tax authorities and creditors.

Figure 1



Source: Nobes, C. (1998), 'Towards a general model of the reasons for international differences in financial reporting', *Abacus*, Vol 34. No2, pp162-185

Figure 1 depicts the classification of countries according to their accounting systems. A typical country that belongs to Class A is USA. From the other side countries that could belong to Class B are for example Germany, Greece and France. The above classification of countries was based on Zysman's attestation (1983). He postulated that globally there are three main financing systems. (1), A capital market system, where companies based on capital market in order to finance their investment, (2), a credit based governmental system, where organizations derive their financing from government resources and are depended upon government's resource allocation plans and (3), credit based banking system, where banks are the main provider of company's financing. Greek companies lie between the credit based governmental system and credit based financing system.

Since February of 1992 when the Maastricht Treaty was signed and the European Union was formulated, the countries included in this Union are struggling in order to achieve full integration in terms of all kind of policies and especially on economic policy. The upward tendency of the globalization of capital markets emerged many years ago and investors and analysts have sought since then more reliable information concerning business performance. One attempt was made by EU when in 1978 published the Fourth Company Law Directive which was followed by the Seventh Law Directive in order to accomplish harmonization concerning accounting reporting (Joos& Lang, 1994). Greek state, as a member of the European Union since 1981, in order to be aligned with the 2 European Directives instituted the law 1041 /1980 whom its formation defined the concept and the aim of the new institution and demarcated the framework where the Greek General Chart of Accounts must has been specified.

The Greek General Chart of Accounts put into voluntary practice since 1/1/1982. However, after the amendment of commercial law and the law 2190/1920 Greek companies implemented the G.G.C.O.A-henceforth the paper will refer to Greek General Chart of Accounts with its initial letters G.G.C.O.A-at least in parts one to four which are referred to the General Accounting (Ballas, 1994).After the adoption, accountants were force to consult G.G.C.O.A concerning the structure and the content of each account according to the proposed models. At this point it is crucial to mention that insurance companies and financial institutions have been excluded from the mandatory adoption of G.G.C.O.A since from 1985 and 1994 respectively they have implemented their own accounting charts (law 1882/1990).

The G.G.C.O.A divided into 6 parts: the first part describes the basic principles of G.G.C.O.A and defines the notion of the accounting formulism. The second part comprises the General Accounting which with its accounts the general outcome of a fiscal year is determined. Moreover, the second part seeks to help accountants to the compilation of financial statements. The third part encompasses accounts where crucial information and useful statistic data are monitored. The fourth part describes the rules and the principles and the way that should be presented the financial statements. Under the G.G.C.O.A the basic financial statements are: the balance sheet, the income statement and the table of income's disposal. Moreover, a special chapter in the fourth part is associated with the use of financial ratio analysis. The fifth part includes the principles of cost accounting where the determination of

operating cost and the production cost are monitored. Moreover, the basic categories of costs and the accounting procedure to determine the production cost are highlighted. The last part of G.G.C.O.A, which is an appendix of the previous part, does not prescribe regulations such as in previous parts, but in contrast includes recommendations concerning model cost accounting and budgetary audit(Sakellis,1999).

Another crucial factor concerning the G.G.C.O.A is that the legislator has taken under consideration the most famous international accounting plans in order to compile the legislation. Many academic scholars attested that the true origin of Greek accounting is the French general chart of accounts which is distinguished by its simplicity and its academic substratum. However, as the G.G.C.O.A separates the General Accounting into 8 groups and using a hundred digits system, the user has the ability to determine the total gross profit of the corporation through the accounts of General accounting .Moreover, through the ability of alternative ways of book keeping, the accounting treatment of branches or other pools of activities of corporations provides managers with a powerful decision-making tool (Frank, 1979).

What was wrong?

Accounting aggregates, analyzes and classifies enormous amount of information and multiplex, by their nature, accounting events. Information data are revealed to stakeholders with the well-known financial statements, which are the final product of the accounting procedure. Published financial statements basically intend to inform interested parties, who are outside of the company, such as investors, creditors and tax authorities (Healy&Palepu, 1995). It is generally accepted that financial statements are composed primarily in order to inform shareholders and creditors, who are basically interested to the financial position of the company and to its present or future lucrative ability. In general they are concerned about the ability of the company to survive and to acclimatize to the continuous changeable economic environment (Bowen & Shores, 1995).

With the adoption of G.G.C.O.A came about a tremendous development in Greek accounting, bearing in mind the fact that many contemporary accounting principles were unknown in Greek companies. Moreover, academic scholars and state have strained in order to fully harmonize G.G.C.O.A with the 4th European directive,

which refers to the structure of financial statements. However, the question if the Greek financial statements have fulfilled their mission was at hand. Benchmarking the reporting quality of Greek financial statements with foreign ones, it became crystal clear that the presentation of Greek companies through financial statements exhibited serious weaknesses.

First of all, corporations are not only a median that returns profits to shareholders but also a social cell which gives jobs to the work force of a country, covers the needs of the public, and pays taxes to the state etcetera. Therefore, company's role is multidimensional concerning the environment where lives (Philios, 1986). Managers of contemporary corporations are responsible not only for the effective management of their firms but also for multiple social matters. It is well known that the narrow financial measures which are depicted in financial statements can not highlight the contribution of companies to milieu. With few exceptions, Greek companies do not compile a social balance sheet; therefore do not reveal data concerning their social contribution (Tsipouri & Xanthakis, 2004).

Secondly, from shareholders' and creditors point of view, the information that was derived from Greek financial statements was insufficient basically because prior to the adoption of I.F.R.S the cash flow statement and the statement of changes in equity did not compile. As a matter of fact, the cash flow statement complements the other financial statements and provides information concerning the uses of the financial resources. Having scrutinized two bankrupt companies, Charitou & Venieris (1990) found that if the cash flow statement had published, stakeholders would have warned about the inability of the companies to produce cash flows in order to predict solvency problems.

Moreover, it is well known that the financial statements in Greece was compiled primary in order the corporations to be hedged against tax authorities. Taking into consideration that Greece is as a stakeholder orientation country, tax reforms dominated the principles of economic science and the General Accepted Accounting methods. Benchmarking the financial statements with countries that had other tax systems was impossible. Having many similarities with German tax code, Eberhartinger (1999) highlighted in his study that was impossible to compare German financial statements with UK's peers due to the fact of taxation's penetration in financial reporting.

Lastly, the accounts of financial statements and consequently the information that derived from them were adulterated from the accounting of historical cost. This adulteration is proportional to the level of inflation. Despite the diminution of inflation in Greece during the past decades, its level during the period 1980-1989 was higher than other European countries (Alogoskoufis & Philippopoulos, 1992).

Until so far the research has focus on pre adoption of I.F.R.S era and has outlined critical factors of Greek accounting. It became crystal clear that the need for superior information was a dead end. The next pages will highlight the endeavors of European Union in order to construct an accounting model that will be applied to all European countries. Moreover, empirical evidences of the adoption of I.F.R.S will provide the necessary background concerning the formulation of dissertation's stochastic model.

A brief history of International Accounting Standards

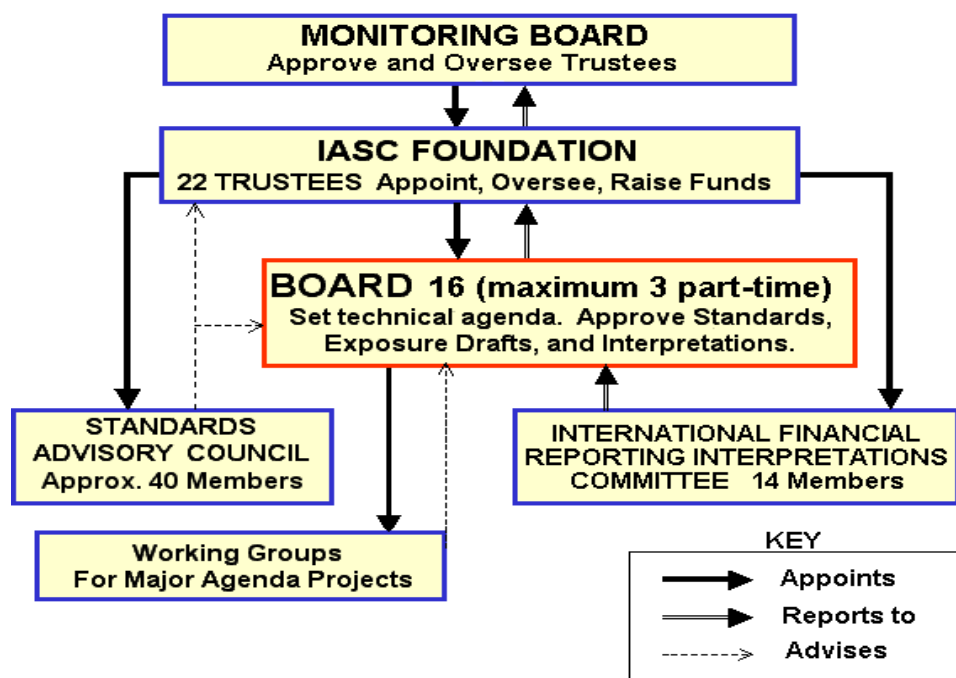
The globalization of economy brought radical changes in international economies and in multinational corporations. Moreover, the convergence between multinational companies and the massive wave of mergers created global protagonists which in order to sustain their role in the global scene should have seek for external financing through investors. The continuous demand of investors for more qualitative information, which would be globally recognizable, in order to have an international measure of comparison concerning financial statements has done imperative need a framework for compilation of published financial statements (Everett, 2003). Last but not least, the blistering pace of technology, which led to vitiation of distances due to the cheaper and more powerful telecommunication, has amplified the demand of investors' community for direct, succinct and reliable information (Doost, 1999).

Natural consequence of the above is the need for a uniform accounting presentation of economic values and therefore the harmonization and the mutual implementation of accounting principles based on International Accounting Standards. The creation of conditions for more effective management of corporations and the struggle for fairer and more credible depiction of firms' operations was the main target of International Accounting Standards. Also the introduction of I.A.S sought for an integrated and more efficacious capital market through the convenience of financial statements' benchmarking. Taking into consideration the above, the

circulation of capital and the competition among corporations could be done more easily (Ruder et al, 2005).

International accounting standards have started to be published from International Accounting Standards Committee in 1973, when was officially the foundation of the Committee. The accounting bodies of Australia, Canada, France, Germany, Japan, Mexico, U.K, Ireland and U.S.A were the founders of I.A.S.C. At early stages I.A.S.C did not have enough power in order to enforce corporations to adopt its standards. The primary aims of I.A.S.C. until today are to harmonize the different accounting principles according to I.A.S, to promote the global acceptance and observance of I.A.S and to make I.A.S understandable in order to provide transparent information through I.A.S in financial statements so that the users of financial information will be have a powerful tool in their hands in the decision making procedure. From 1973 to 1995 I.A.S.C has published numerous of accounting standards without having formal authority. I.A.S.C until then accepted various alternatives of accounting practices despite the fact that by 1995 many standards had been revised (Alexander et al, 2007). In 1998 the completion of I.A.S No 39 ‘Financial Instruments Recognition and Measurement’ has signified the beginning of a new era for I.A.S.C

In May of 2000 the members of I.A.S.C elected a new organizational structure:



Source: <http://www.iasplus.com/restruct/restruct.htm>

In April of 2001 I.A.S.C renamed to International Accounting Standards Board in order to harmonize its name with the well known U.S.A peer the Financial Accounting Standards Board. The American Institute of Chartered Public Accountants since 1938 has already founded the Committee of Accounting Procedures in order to limit the differences and the discrepancies in accounting practices. In 1959 the above institution was replaced by the Accounting Principles Board, which has published numerous of Opinions, and gave apposite solutions concerning serious accounting problems (Mc Gregor& Street, 2007)

2001 was the emergent year for I.A.S.B, since have been decided that all the accounting standards will have been published by I.A.S.B and will be renamed to International Financial Reporting Standards(I.F.R.S).

The council of I.A.S.B is consisted from 14 members and its aim is the development and the publication of I.F.R.S. Moreover exposure drafts are another crucial work of I.A.S.B. The Standards Advisory Council, which jogs I.A.S.B, is consisted from 50 members and its main work is to provide advices to I.A.S.B concerning current matters of accounting problems. Moreover, I.A.S.B.'s work is relieved by International Standing Financial Reporting Interpretations Committee, which consists from 12 members and its main jurisdiction is the interpretation of the standards and the prompt provision of guidelines concerning subjects which are not sufficiently analyzed from I.F.R.S (Whittington, 2005).

I.F.R.S reflect the codification of General Accepted Accounting Principles whom implementation lead to the uniform compilation of financial statements and consequently in fairer and more credible information to the users. I.F.R.S should be implemented by accountants and must be checked for their validity by internal auditors (<http://eifrs.iasb.org/eifrs/bnstandards/en/framework.pdf>). Moreover, I.F.R.S focus on the most basic subjects of accounting and are not extremely complicated in order to be implemented by all countries. However, the legislation of each country regulates the publication of financial statements. Legislation includes the accounting standards that have been published from accounting bodies. I.A.S.B cognized the national accounting standards that have already been published by each country and under this particular knowledge created I.F.R.S for global acceptance. The I.F.R.S which are published from I.A.S.B do not dominate local standards-national rules of each country that refer to the publication of financial statements. The disclosure of I.F.R.S's implementation from every material aspect is one of the obligations of

I.A.S.B.'s members. When local legislation demands deviation from I.F.R.S, the local members of I.A.S.B should try to persuade local authorities for the advantages of I.F.R.S (Schipper, 2005).

Having research so far the Greek accounting and the nature and history of International Accounting Standards would have been an enormous omission if this paper did not scrutinize the main differences between Greek accepted principles and the latterly adopted in Greece I.F.R.S.

Main differences between Greek and International standards

International Accounting Standards require the compilation of cash flow statement with definite structure and in such way where the information is codified in order to be easy for the user. Greek legislation does not predict this obligation for Greek corporations. Moreover, International Accounting Standards require the compilation of the statement of changes in equity, which also does not provided by Greek companies (Wallace et al, 1997). Instead of the above the law 2190/1920 states the table of earnings disposal. In addition, in consolidated financial statements the compilation of the above table is not compulsory and therefore the user of financial statements is deprived from crucial information. The statement of changes in equity compromises not only all the necessary information concerning the changes in equity during the fiscal year but also in the end of it through the outcome's disposal (PricewaterhouseCoopers, 2001).

Numerous are the differences in accounting practices between Greek accounting and I.F.R.S. In many cases International standards demand a different accounting handling than Greek law. The presentation of all differences is beyond the scope of this current dissertation, nevertheless a brief look of the most crucial dissimilarities, which will be highlighted later in this research, will be depicted.

According to Greek law the depreciation rate is calculated with fixed coefficients which must be implemented during all the years without changes in the depreciation rate. In contrast, International standards state that every company should evaluate first the life of each fixed asset and indeed this evaluation should be underlay in tactical checks. Another crucial factor, which will have tremendous impact in Greek financial statements and in valuation of the companies as a whole in the adoption period of I.F.R.S, is the revaluation of tangible assets. According to the

Greek law property and plant must be revaluated every 4 years according to specific rates which are prescribed from legislation. The revaluation procedure is not mandatory according to I.F.R.S. If it is necessary for the company to reevaluate property and plant in order to depict the fair value, then this should be done by a specialist. Also another difference that brought confusion among Greek accountants is the accounting treatment of leasing (Street, 2002). According to Greek GAAP the leasing of assets do not appear in lessee's financial statements but remain in lessor's balance sheet. Moreover, the annual rent for lessee's point of view is treated as an expense and is deducted from the taxable income. According to I.F.R.S, financial leasing is treated like a purchase of an asset for the lessee and respectively sale for lessor. Deferred tax assets and liabilities are new concepts for Greek accounting. According to the Greek law the financial statements depict only the taxes that are calculated based on the Greek tax legislation (Nobes, 2000). In contrast, I.F.R.S propose that each income tax can be treated as an expenditure and can be aligned with specific transactions. Last but not least, the different treatment of R&D expenditures is a crucial subject concerning the depiction of corporation's investments on financial statements. According to Greek tax law specific categories of the above expenditures depicted in the Balance Sheet and not in the Income Statement. Moreover the Greek law gives the opportunity to corporations to depreciate the above expenses immediately or after 5 years. Although there is not an integral discrepancy according to I.F.R.S's treatment, nevertheless expenses for research do not post in the intangible assets and expenditures for development could be written down to the Balance Sheet under special circumstances(Sakellis,2002).

Until so far different treatments concerning the accounting methods have been discussed. However, the differences between the two standards do not stop here. Another big category of differences is the accounting treatments in consolidated financial statements. As discussed before, Greek companies do not have the obligation to compile a consolidated statement about the disposal of income. According to I.F.R.S there is neither such obligation but it is mandatory for corporations to provide a consolidated statement for changes in equity. Moreover, according to the Greek standards the accounting handling of differences in subsidiaries consolidation is completely different from I.F.R.S. Greek law gives the opportunity to corporations to depreciate the goodwill that derived from the above differences within 5 years. In contrast, I.F.R.S introduce the notion of impairment of

goodwill (Ding et al, 2008). Corporations should be test impairment every year and also predict that the depreciation for the goodwill should be done in 20 years horizon. Last but not least, the Greek General Chart of Accounts postulates that minority interests must be presented in the consolidated balanced sheet in a specific account of equity. According to I.F.R.S minority interests should be depicted in a specific category which should be separated from Equity and Liabilities.

Adoption across Europe and the potential consequences

Until this point the examination of Greek accounting and the differences between I.F.R.S were the primary concerns of this study. What were the indirect and direct repercussions of the adoption? Do investors receive this adoption as a start for more qualitative information? The next section of the present dissertation is going to highlight the above question and will try to briefly present the associated academic literature.

Creative accounting is a term that has been discussed the last two decades due to enormous accounting scandals. Creative accounting refers to the intentional avoidance of General Accepted Accounting Methods in order for accountants to present a specific accounting outcome that is beyond the true and fair view of the company (Blake et al, 2000). Creative accounting focus on exploitation of some defects of accounting standards or on the choices of accounting standards which however are not appropriate to depict the true view of financial statements(Rabin,2005). The most common aspects of creative accounting are the window dressing and the off balance sheet financing. The former refers to accounting techniques that could be done before the end of the fiscal year in order to present a more favorable appearance of financial statements. Immediately after the signal of the next year the above techniques are inverted. The off balance sheet financing refers to accounting events that intentionally do not depicted in the financial statements in order for some corporations –especially financial institutions- to present a technical tumefaction of liquidity. Sale leaseback agreement is the most common technique of off balance sheet financing (Hartgraves&Benston, 2002).

The main aim of IASB is to take all the necessary safety measures in order International accounting standards to prevent or to decline the potential use of creative accounting from corporations. According to IASB's framework for the presentation

and preparation of financial statements, which published in 1989 and compromised the codification of General Accepted Accounting Principles, financial statements should have 4 main qualitative characteristics. Firstly, information that derived from financial statements should be easy to understand from the users who have average knowledge concerning financial statement analysis (I.C.A.E.W, 2007). Secondly, users of financial statements in order to be helped in their decisions concerning evaluations for a corporation should have information that is relevant to their needs. Thirdly, users in order to be in a place to make accurate judgments should have credible information. The above automatically means that the financial statements do not have serious mistakes and accountants did not proceed to creative accounting and thus the financial statements depict the true and fair view of the company. Last but not least, information in order to be defined as material and crucial for users should affect their judgments if the particular piece of information is missing from financial statements (Elliott & Elliott, 2006). Baring the above framework in mind, everyone will expect that under the adoption of I.F.R.S practices like off the balance sheet financing and earnings management will be eliminated. The opinions in the academic community are discordant. According to Tendello & Vanstraelen (2005), who investigated the market in Germany based on the fact that many German corporations adopted I.F.R.S prior to 2005 which is the year for mandatory implementation, corporations did not follow the notion of the true and fair view of financial statements. The above study could be a disastrous for the members of IASB since it proved that companies that voluntary adopt I.F.R.S entered in creative accounting practices such as income smoothing. On the other hand Lapointe-Antunes et al (2006) led to different conclusion. Having examined the market of Switzerland, where the national GAAP are poor concerning the subject of transparency in financial statements, they concluded that corporations which adopted I.F.R.S, bearing in mind that the increasing disclosure is prerequisite for the adoption, reduced income smoothing. Moreover the research has shown that investors under I.F.R.S regime are in better position to detect juggles in income statement. Although there are numerous studies concerning the problem at hand, a recent study goes beyond income smoothing and creative accounting. Wu& Zhang (2009) having depended on prior studies which, advocated the superior information quality that I.F.R.S brought to financial world, kept pace with the notion that I.F.R.S decreases earnings manipulation. On their study postulated that not only the adoption of I.F.R.S diminish

creative accounting such as window dressing techniques but also the profits that are depicted in financial statements under the umbrella of prudence are more powerful tools for the evaluation of business's performance.

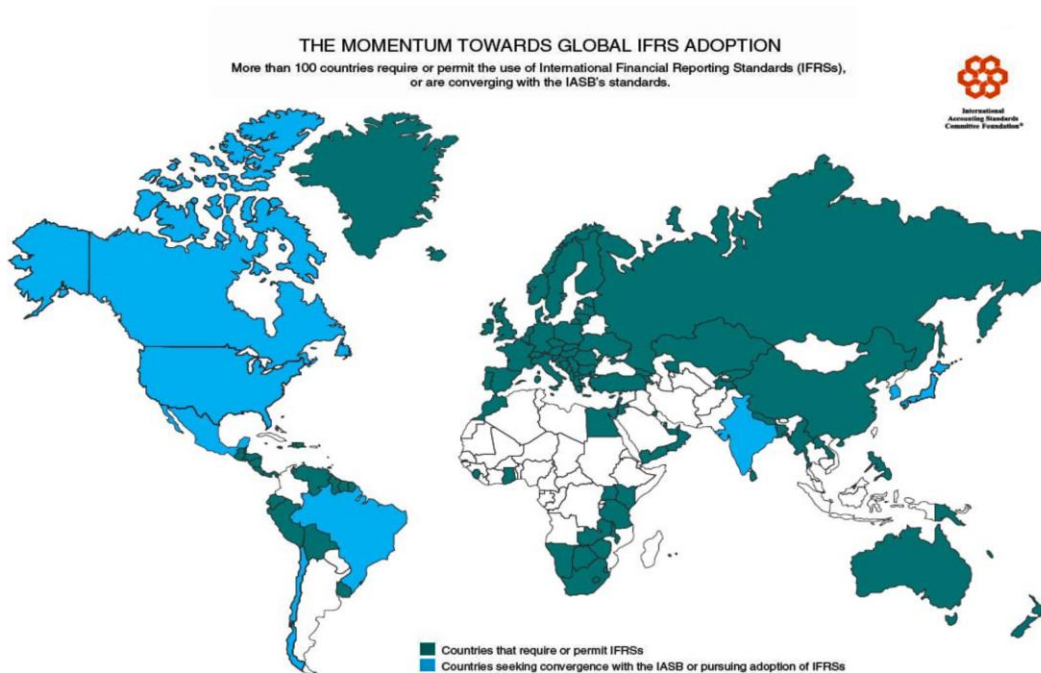
One of the most famous series of articles concerning the transition from national GAAP to I.F.R.S are whether the changes in the accounting practices and consequently the changes in the presentation of corporations via financial statements have any impact in investors' beliefs and therefore in share prices.

At this point the accounting literature contradicts financial management literature. If investors use the correlation between earnings and stock prices, they will probably invest in the specific share prices that are undervalued. However, according to Fama(1970) and his groundbreaking study about stock markets , the share prices already reflect all the available information that can derived not only from financial statements but also from every source of information. The well known theory of Efficient Market Hypothesis, which not refer to the way that a financial market can operate neither to participants of a particular market but to the efficient mechanism of pricing stocks, postulates that no one can systematically and continuously beat the market The above refers to two distinct features of information: the velocity of adaption and the quality of adaption. The adaption should be direct and simultaneously with the publication of the new information and also should be to the right direction. According to the level of information's adaption, the stock market efficiency is classified into three categories (Fama, 1991). Firstly, the weak form of efficiency indicates that the share prices react only to new information and the prediction for the future fluctuations based only to past data can not be performed. Secondly, the semi-strong form of efficiency appears when share prices reflect directly to new information. Therefore, the pricing of stocks prevents the possibility of speculation based on financial statement analysis. Lastly, when the stock prices reflect not only published information but also information that is relevant with stocks and is still unpublished, then there is a signal for the strong form of efficiency. Bearing in mind the above, it becomes clear that even inside information could not be used in order for someone to gain preferential position in the stock market.

The acceptance of Efficient Market Hypothesis even in weak form has many consequences in financial reporting. E.M.H suggests that the substance, and not the form of the financial statements, plays the most crucial role in capital markets. The above means that the disclosure of all necessary information from corporations is the

reason for an efficient mechanism of pricing. The treatment of financial data and their depiction in financial statements with a specific way are not necessary for investors in order to make decisions concerning investment strategies (Baiman & Verrecchia, 1996). Share prices reflect a series of information where financial statements have a little slice of the above. In the next paragraphs the relationship between Efficient Market Hypothesis and International Accounting Standards along with the value relevance of accounting information will be presented

In 1968 Ball & Brown, having used a multiply regression model, proved that half of the fluctuations of share prices for a company could be detected from expected and unexpected income. Therefore, they have provided a punch in Efficient market Hypothesis's stomach. In contrast with the former, Dopuch (1971) argued that scholars, who used regression analysis in order to find correlations between dependent and independent variables, based only to the statistic r^2 in order to provide evidence about the correlation of accounting numbers and share prices. Results such as 0.65 or 0.50 should be taken under consideration. Nevertheless, a recent study from Milburn (2008) concluded that the market efficiency is aligned with IASB'S framework. The above means that the fair value accounting presupposes some form of market efficiency. As more than a 100 countries as the picture depict below applying I.F.R.S mandatory or voluntary, the issue of the value relevance of the accounting information that is derived from the financial statements is becoming more crucial for investors around the world.



Source: <http://www.iasb.org>

In the same line with Depuch's work, Brown & Kellogg (1999) focused on the use of R^2 as a mean of academic scholars to prove relationships between stock prices and accounting numbers. Having examined share prices for over four decades and in the same time scrutinized three prior studies concerning value relevance; they concluded that scholars should not take the above statistic as a general truth. The cause behind this reasoning is that R^2 can not compromise scale effects and thus the whole project may be biased. Nevertheless, accounting literature is full of examples that prove the relationship between figures in financial statements and stock prices. In an emerging market like Greece, Dimitropoulos & Asteriou (2009) used an OLS regression model which comprised data from Athens Stock Exchange for 101 non financial companies. They separated their sample in such way to depict the impact of key financial ratios which believed that are easy to be manipulated by corporations. Their results indicated that four out of six financial ratios can detect fluctuations in stock prices. However, the crucial factor of these studies was to investigate just the relationship of information derived from financial statements and the impact in the stock markets. The recent changes in the accounting regime around the world made the scrutiny of the value relevance versus local GAAP an imperative need. Beisland &

Knivsfla (2009) responded to the call of the problem at hand. This time the Oslo Stock Exchange was under investigation and the data was from 2003 to 2006. The differences between the local accounting regime and I.F.R.S according to the Norwegian Law are few. However, the increasing disclosure of intangible assets that is proposed by I.F.R.S and the fair value accounting had multiple repercussions in investors' beliefs. The study has shown that under I.F.R.S the book value of equity and the market value of equity have stronger association than under Nation's GAAP. On the other hand, Dan (2002) scrutinized a more different market than European markets. According to Chinese legislation corporations must issue two classes of shares concerning the investor community. When Chinese companies refer to foreign investors, they must issue B-class shares. Nevertheless, the results from the statistical analysis were quite repellent for I.F.R.S. Having compared the Chinese accounting with International Accounting Standards, Dan proved that the power of earnings and the book value of equity were in the position to explain more precisely the fluctuations of B-shares than International Standards. The above certainly means that, under Chinese GAAP, investors have more information in their bucket in order to make investment decisions.

The last part of this chapter, which is the most controversial among others, will discuss the adoption of I.F.R.S and its relationship with the cost of capital. Many theories suggest that after the adoption the company's cost of capital has raised significantly. On the other side, academic literature suggests that it has remained unchanged. Due to the fact that the dissertation's stochastic regression model compromises the cost of capital as a variable it is worth to scrutiny the academic literature concerning the Capital Asset Pricing Model and its association with share prices.

C.A.P.M as a cost of equity and its implications for the adoption of I.F.R.S

The born of the portfolio's theory postulated for the first time the problem of optimal portfolio selection. Markowitz (1952) begun the construction of the above theory based on the assumption that investors who possess a certain amount of money and are willing to invest in the stock market, at the end of the holding period they will sell the securities and will use the income either for consumption purposes or for reinvestment purposes. From the above assumption becomes clear that investors

should choose one of the infinite combinations of securities which exist in the financial markets. Under risk free conditions in the market, investors will easily choose the optimal portfolio which lead to best return. Unfortunately, this is not the case in the real world where the only certain thing in the stock market is uncertainty. It is a natural consequence that investors who invest in risky assets intend higher returns than when invest in risk free securities (Jensen, 1969). Therefore investors concern not only for the maximization of portfolio's return but also for the correlation between the risk and return that is compromised in their portfolio. Therefore the risk of the portfolio could be expressed if all the possible returns for a security and all the potential probabilities for the above are known. The above approach can be expanded if investors accept that in capital markets along with risky securities also some risk free securities are bargained. Therefore, investors can purchase or sell risk free assets. In the framework of portfolio's theory, investors have the ability to lend and to borrow money with a risk free interest rate which is equal with the return of a risk free asset. In financial management literature risk free assets are those which have a maturity life equal to investor's holding period and have a return, in the end of their maturity life, which is known a priory. The risk free asset from its definition has a variance equal to zero and its covariance with other securities is equal to zero too. Risk free assets like the above mentioned could be accounted Government Bonds and Treasury Bills which their maturity lives do not exceed one year(Fisher & Lorie,1964).

The risk of an asset depends from two variables. The systematic risk and the unsystematic risk, which means that the level of risk can not be diversified under systematic risk and the rate of risk that can be diversified if the security is going to be compromised in a portfolio. Bearing in mind that the risk of a portfolio is given by its variance which measures the dispersion of a regular distribution, the total risk can be expressed algebraically as:

$$V(R) = \beta^2 V(rm) + K(e)$$

$V(R)$ is the variance of a security or portfolio, β expresses the slope of the regression's line which derived if it is assumed that the return of an asset is associated linear with the expected return of market's portfolio (Brealey et al, 2006). The above linear regression can be expressed mathematically as:

$$EX(R) = a + \beta E(rm) + e$$

The variance of error term e expresses the rate of return of a security which is not correlated with the market's return. Therefore means that the risk which can be diversified and thus avoided is the variance of the error term. From the above becomes clear that the only risk that is associated with investment decisions is the term $\beta^2 V(r_M)$ which is the risk that refers to the movements of a security in correlation with the fluctuations of the market. From the above it can be derived that the term β is equal with the covariance of a security with the market portfolio divided from the variance of the market portfolio. So, the final equation for β is:

$$\beta = \frac{Cov(r_i, M)}{VAR(r_M)}$$

The above measure of risk reflects the relationship of a share with the general condition of the market and is the risk which can not be eschewed whether someone holds the best diversified portfolio. Bearing in mind that the diversification can not affect the risk which measure from β , investors are willing to pay the risk premium which is defined by the market (Bodie et al, 2002). The return beyond the risk free rate is correlated only with the level of risk of β , which reflects the contribution of an asset in a well diversified portfolio. According to the above, an economic model was developed which expresses the return of a security in linear correlation with its risk. The well known Capital Asset Pricing Model is expressed mathematically as follows:

$$E(r_i) = RF + \beta [E(r_M) - RF]$$

Where the factors of the equation mean:

$E(r_i)$: the expected return of an asset

RF : the return of a risk free asset

$E(r_M)$: the expected return of the market and

β : the coefficient of the asset's risk as calculated by the covariance and the variance of the market .

The logic behind the C.A.P.M is that the return of an asset is equal with the return of the risk free rate plus one adjusted factor for the market risk. The adjusted factor of the market risk can be calculated as the product of the adjust factor of market's risk with the risk premium of the market. Taking into consideration that the covariance between the market and itself is one, the β of the market's portfolio is always equal with one (Sharpe, 1964).

Despite the seemingly easiness of the C.A.P.M's calculation, the implementation in practice is associated with many underlying difficulties. Many academic scholars in order to recognize the market portfolio used stock exchanges such as the New York Stock Exchange. However, the construction of the model and the underlying assumption of it along with the globalization in capital markets presuppose a portfolio with much larger range of data. Moreover, like many academic theories, C.A.P.M bases its power on several assumptions. Firstly, C.A.P.M in order to be validated presupposes that investors are risk averse and seek the maximization of wealth at the end of the investment period. Secondly, under the notion of the risk free asset, C.A.P.M postulates that every investor can borrow and lend with a free risk rate. Thirdly, investors' expectations are homogenous concerning the return of the assets. Fourthly, C.A.P.M. presupposes a market where interventions from the state do not exist. Last but not least, the construction of Capital Asset Pricing Model was based on the framework of Efficient Market Hypothesis, which implies that information concerning investment decisions is available to all investors simultaneously and with zero cost (Lintner, 1965).

Under these assumptions the C.A.P.M has received many critics. Concerning the last assumption about the Efficient Market Hypothesis, the current research has depicted many anomalies around the global market. If indeed the Efficient Market Hypothesis was true, the value relevance of accounting in correlation with stock prices is completely wrong. Moreover Black (1972) studied the C.A.P.M without the risk free asset assumption. The above means that investors can not lend or borrow in a risk free rate. The difference from the initial model is that the investors hold portfolios which each of them are a linear function of market's portfolio and the portfolio with zero variance and zero β .

Despite the above discrepancies many scholars used the C.A.P.M in order to define the company's cost of capital. As a measure of risk, C.A.P.M is the minimum requirement for an investor in order to put his money in the asset. Bearing in mind that I.F.R.S requires more disclosure of the companies, scholars studied the relationship between the disclosure practices and the firm's cost of equity. Botosan (2006) studied the relevant literature and concluded that the opinions of scholars concerning the problem at hand are confused. In general, when company is more transparent in its financial statements then the information asymmetry between investors and company is reduced and consequently the cost of equity is declined too.

In accordance with the above notion, Daske (2006) scrutinized a sample of German companies which from the period 1993 to 2002 have adopted International Accounting Standards or US GAAP. Using a Residual income model and an Abnormal Earnings Growth Model, Daske has proved that in fact the transition from local German GAAP to IAS has raised the equity's cost of capital. Daske postulated that the underlying reason for the above discrepancy was that the investors probably confused by the increasing disclosure of International Standards and therefore the judgments concerning the risk of the companies and consequently the cost of the equity was faded by the fact that there was no prior evidence about the transition. So the increased transparency from German companies led to an increase in information asymmetry. In contrast to Daske's research, Lambert et al (2007) used an extended version of C.A.P.M which compromised future cash flows. Building the above model, the covariance which is the crucial component of C.A.P.M has been changed in order to detect investors' beliefs about the future cash flows of the company. This extend version of C.A.P.M was expressed mathematically as follows:

$$E(R|\Phi) = R_f + \frac{E(R_m|\Phi) - R_f}{\text{Var}(R_m|\Phi)} [\text{Cov}R, R_m|\Phi]$$

It becomes from the above expression that the crucial changed of the initial C.A.P.M model is the insert of the variable Φ which represents the company's future cash flow. In the above case the β is expressed with the function $[\text{Cov}R, R_m|\Phi]$. With the use of the above model, Lambert et al (2007) stated that the increasing accounting disclosure has declined the cost of equity which expressed with future cash flows. In consistent with the previous study, Karamanou and Nischiotis (2005) used a sample of 564 firms which adopt voluntary I.A.S. The examinations of events prior and after the announcement of the adoption were their first priority. The classic event study depicted that there was a statistical significance correlation between the adoption of I.F.R.S and the company's cost of capital. The increased disclosure of the firms which were in their sample led to a tremendous decline in the cost of capital. It is worth to mention, that for the above study the Tobin's q was used in order to determine the company's cost of equity.

Having examined the above literature, it is crucial to mention that the company's cost of capital, which is the minimum return that a company should achieve in order not to decline the market value of its stocks, is the key to the implementation of financial models such as the internal rate of return or the net

present value. Moreover the calculation of company's cost of capital is necessary for not only the valuation of the whole firm but also for the valuation of the stocks that a company has issued. Therefore the company's cost of capital should be treated as the level of risk that investors attribute to the firm, Taggart (1991).

In December 2007 the French Asset Management Association along with the French Insurers' Association published a collection of interviews with person who either work in the financial industry or have engaged with the adoption of I.F.R.S. The opinions were quite similar. The adoption of I.F.R.S in European countries did not have the success that the IASB postulated in its framework. The convergence in the accounting practices is still on the way. Investors have not yet realized the power of the I.F.R.S' disclosures. The new accounting mixture was not probably catch the attention of investors. Dissimilarities among European's financial reporting practices still exist. However, I.A.S.B has not lost the bet yet. The recent financial crisis proved that disclosure and reliability in financial markets are the two main concepts which should exist in order the mechanism of the market to be operated well.

To sum up, the dissertation until so far provided the necessary theoretical background in order to detect numerous accounting researches concerning the adoption of I.F.R.S. Basic elements of I.A.S.B.'s framework have been studied along with national accounting standards. Moreover the main differences between Greek accounting, which will be the market under investigation for the current dissertation, and International Accounting Standards have been scrutinized. A crucial factor to the construction of the dissertation's stochastic model is the Capital Asset Pricing Model , thus academic literature have been researched concerning the company's cost of capital which is given by C.A.P.M. The next section of the research will focus on the methodology which is followed in order to depict the stock markets' reaction concerning the mandatory adoption of I.F.R.S in Greece.

Sample and data selection

Given the fact that the dissertation focus on the Greek market, the data were acquired from the Athens Stock Exchange. In order to avoid self selection and bias in the sample, 90 companies have been chosen randomly from the ASE. It is crucial to mention that the above sample can be characterized as appropriate concerning its size. Prior studies that have been done in Greek market concerning I.F.R.S adoption had

size that fluctuated from 20 to 83 companies .The initial sample was over 120 companies but after the examination of their annual reports, some companies were excluded from the sample. The main reason for the above was the fact that many corporations in Greece which are listed in the Athens Stock Exchange do not end their fiscal year at 31 of December. Also, companies which were their first time that their shares went public were excluded from the sample in order to avoid further discrepancies (The law 2190/1920 give the opportunity to new founded companies to extend their fiscal year beyond 12 months).At this point of the study it is worth to mention that the financial sector did not excluded from the analysis. Baring in mind that the banking sector in Greece follows different accounting policies and its percentage in the market's total capitalization, it would have been a great omission the exclusion from the sample. The table below depicts the number of companies and the sector of each company which was randomly selected for the sample. Moreover the daily closing prices for the above shares were acquired from Athens Stock Exchange in order to avoid any errors and manipulations. The time range for the shares was from 31/12/2005 to 31/12/2006.The selected time window will be discussed further in the section of methodology. Concerning the figures of the financial statements, the data were acquired not only from the website of ASE but also from the websites of individual corporations. The above happened due to the fact that the website of ASE in many cases do not provide the full package of financial statements and therefore it was impossible for the research to take the right information. Also, for every company in the sample the websites and the annual reports from previous years -2003/2004- have been examined for further information concerning the adoption of I.F.R.S. Last but not least, from the table below becomes clear that all the sectors of the stock market have been examined. The food & beverage sector contains the most companies of the sample.

Table 1

SECTOR	Number of companies	Percentage
<i>CONSTRUCTION & MATERIALS</i>	6	6,67%
<i>RETAIL</i>	5	5,56%
<i>INSURANCE</i>	1	1,11%
<i>BASIC RESOURCES</i>	7	7,78%
<i>PERSONAL & HOUSEHOLD GOODS</i>	12	13,33%
<i>TECHNOLOGY</i>	5	5,56%
<i>BANKS</i>	9	10,00%
<i>TRAVEL & LEISURE</i>	4	4,44%
<i>MEDIA</i>	5	5,56%
<i>HEALTH CARE</i>	4	4,44%
<i>FOOD & BEVERAGE</i>	17	18,89%
<i>INDUSTRIAL GOOD & SERVICES</i>	9	10,00%
<i>UTILITIES</i>	1	1,11%
<i>OIL & GAS</i>	2	2,22%
<i>CHEMICALS</i>	3	3,33%
TOTAL	90	100,00%

Athens Stock Exchange

Before this research proceeds to the construction of the methodology, it has been considered a necessary part for the analysis, a review of the Athens Stock Exchange. Before the foundation of the Athens Stock Exchange in 1876, when the government gave the permission for its foundation, the shares of the companies (for the above period only two companies had traded shares: The National Bank of Greece and the Steamship Company) were traded in local coffee shops. Having change locations prior to 1930, in 1935 the Athens Stock Exchange located in Sofocleous Street. It is crucial to mention that the progress of the ASE it was clearly in wrought with the progress of the banking sector in Greece. The period 1983-1986 has been characterized as a period with an increase in Greece's deficit. The inflation rate was increased and the upward tendency of wages burdened the production cost of the companies. As a natural consequence to the above and taking into consideration the declining tendency of corporations' earnings, investors switched their focus to bond

and to investments in foreign exchange (Diacogiannis & Tsiritakis, 2001). In 1986 the conditions in the Greek economy has started to change. Crucial role to the recovery of Greek's capital market was the Presidential Directive Number 350 of 1985 which prescribed the conditions in order for bond and shares to be traded in the Stock market. In the period 1987-1990 the government's stability program have started to work. Foreign investors appeared to ASE and the Greek investors have started to buy trading securities concerning the fact that the high levels of inflation did not favor banking deposits. In the year 1990 many dynamic companies listed in ASE .Therefore from 119 corporations that was listed until 1989, in 1990 140 companies had trading shares in the Primary market and 5 had shares to the Secondary market (the Secondary market is the financial market where the transactions trade in values which are not listed in the Primary market. The Secondary market gives the ability to middle size companies to obtain capitals for their investment programs) (Dockery et al, 2001). In 1998 the national accounts of the Greek economy were further increased .The General Index followed an upward tendency and from 15/3/1998 until the summer of 1998 wrote an 81% increase. Moreover in 1999 the development of Athens Stock Exchange was unprecedented. Thousands of new investors had entered the Primary Market and the share prices have started to rise with extraordinary rates. The General Index boosted to 6355 points, which was the maximum level of all its history. Nevertheless, in the period 2000-2001 the downfall of all the global Stock Exchange Indexes along with the recession of the global economy, led the General Index to an abrupt downfall to 3200 points. The table below depicts the evolution of the Index from 1985 to 2005. The abrupt increase in the period 1999-2000 is clearly observed (ASE, 2001).

Table 2



Methodology, assumptions and the construction of hypotheses

In order to be able to measure the impact of adoption of I.F.R.S, the research will provide key differences in the accounting information between Greek accounting and I.F.R.S. The whole structure of the methodology could be seen as a mixture of the two waves concerning the adoption of I.F.R.S. The value relevance and the cost of capital were basically mixed together in order to depict a regression model that will be able to reflect the impact of adoption in Greece.

The case was simple for the members of IASB. They wanted to create a European community where at least the listed companies will provide sufficient and comparable information. In order to facilitate the above plan, IASB proposed in 2000 that all listed companies should report their financial statements under the regime of I.F.R.S. In 2002 the dream came true for the members of IASB. The European Commission passed the Regulation No.1606/2002, which forced all the European

Companies that are listed in a Stock Exchange Market to prepare their financial statements after the 1 January 2005 according to International Accounting Standards.

In Greece the implementation of I.F.R.S established with the law No 2992/2002 which stated that the adoption of I.F.R.S refers not only to the annual financial statements but also to the interim reports. The year 2005 was defined as the first year of the mandatory adoption of I.F.R.S. It is crucial to mention that the above legislation framework did not compromise issues concerning the adjustments of corporations in I.F.R.S and did not predict regulations which refer in tax and accounting harmonization from the Greek Law to I.F.R.S (Sakellis, 2002).

Taking the above into consideration, the time window for the study was defined from 30/12/2005 to 29/12/2006. In fact the timeline of the study corresponds to the mandatory adoption of I.F.R.S in Greece, since the annual results from the fiscal year of 2005 published after the end of 2005. At this point of the study it is worth to mention that the financial figures for the analysis at hand derived from each corporation's annual financial statements. More precisely, the table of reconciliations between Greek GAAP and I.F.R.S was scrutinized in order to pick the above accounting figures. However, many corporations which were in the sample did not provide reconciliations concerning the numbers of the balance sheet and the income statement. Therefore, in order to find the differences in income statement and in the balance sheet, the research retraced to the financial statements that have been published before the mandatory adoption of I.F.R.S. So to sum up, the data were derived from two big samples. The first sample of the data was derived from the annual statements of 2005, which in fact compromised the table of reconciliations from the end of 31/12/2004. On the other hand, the differences from the fiscal year that ended 31/12/2004, were derived from the annual statements of 2005 and from the annual statements of 2004.

The most difficult part of the study was to define the appropriate time window for the calculation of the Capital Asset Pricing Model, which as the dissertation discuss later was one of the key variables to the construction of the regression model. In order to detect the appropriate time window for the calculation of C.A.P.M and its connection with the actual return of the shares, the regulation of the Greek law about the timeline of the financial reporting must be scrutinized.

According to law 2190/1920 the financial statements in Greece are compiled from the Board of Directors. The law does not prescribe exactly who compiles the

financial statements. However, the legal entity of the corporation is forced to compile the above statements. The fulfillment of the above obligation weighs on the Board of Directors. The endorsement of the financial statements from the Board of Directors is a critical requirement for their status. However, the General Annual Meeting of the shareholders is the entity that has the power to amend or to endorse the final product of the accounting procedure (Leventis & Wheatman, 2004). Moreover, the law 2190/1920 and its relative article 7b prescribes that corporations in order to publish their financial statements must accord to the Ministry of Trade a copy of them in order to be recorded in the Register of Anonym Society (Anonym Society is the legal entity of corporation in Greece. According to law 2190/1920 every listed company must have the above legal entity). Moreover the law states that the publication of financial statements in Greece is accomplished through the publication of them and their certification of audit in the National Gazette 20 days before the Annual General Meeting of Shareholders. Beyond the above publications, corporations must also publish their financial statements in a daily political and economical newspaper. Bearing in mind the above and concerning the fact that the General Annual Meeting of Shareholders must be done within 181 days after the end of the fiscal year, the financial statements in Greece are published until the end of June (Owusu-Ansah & Leventis, 2006).

Taking everything into consideration, the final time frame is as follows: From 30/12/2005 to 30/6/2006 the analysis will focus on the daily closing share prices of the sample corporations in order to calculate the expected returns based on the Capital Asset Pricing Model. From 30/12/2005 to 29/12/2006 (end of the fiscal year) the study will reveal the annual actual return for each share price. The purpose of the above separation has been made in order to depict the impact of the annual publication of reconciliations concerning the figures in the balance sheet and in the income statement.

The analysis made several assumptions concerning the impact of I.F.R.S in the stock market. Firstly, except from the assumptions of the Capital Asset Pricing Model that have been mentioned in the literature review, the study presupposes that there is no evidence about insider trading in Greece and therefore investors do not have information concerning the actual figures of the reconciliations between Greek GAAP and I.F.R.S. Therefore, the study expects that investors do not have enough information prior to the publication of financial statements (prior to 30/6/2006) in

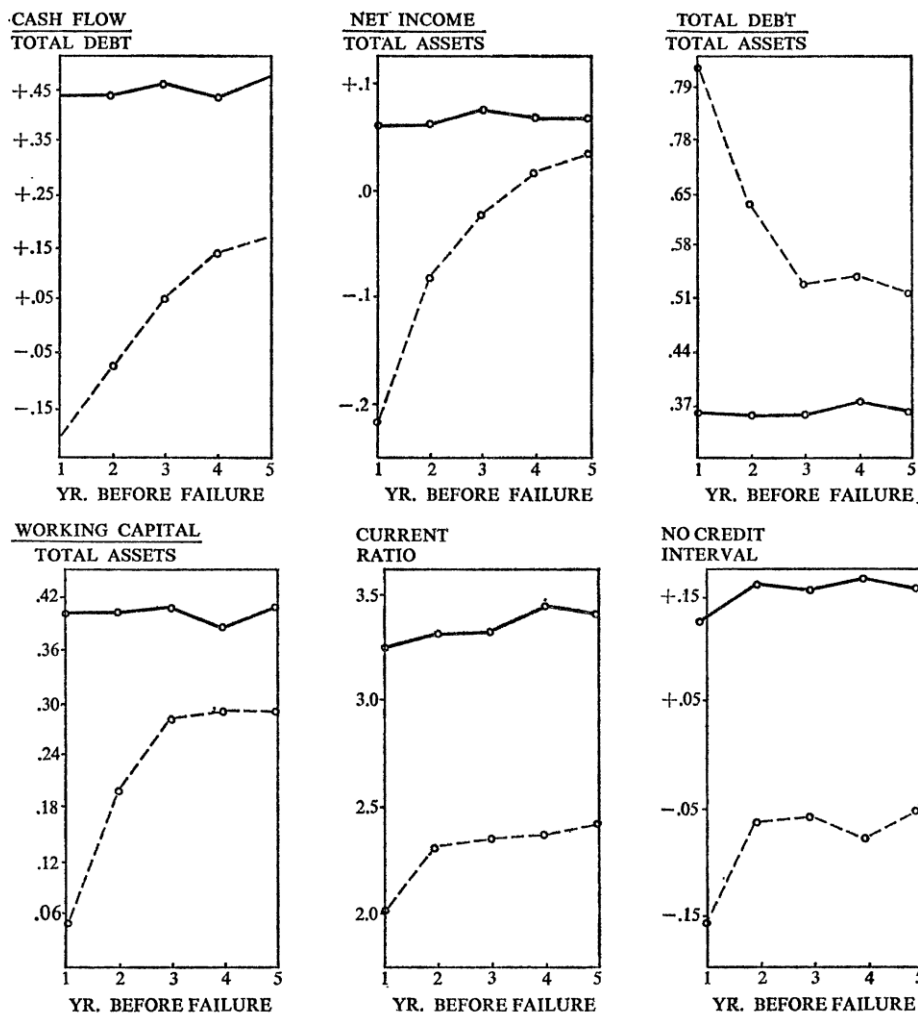
order to readjust their investment portfolios. Secondly, the analysis presupposes that by the time the financial statements have been published, share prices do not immediately reflect the new information. Therefore, the study rejects the Strong form of Market's efficiency. So the analysis gives enough time for not only mutual funds but also to common investors to work up the new information within a period of six months (end of 2006). Last but not least, the analysis accepts the fact that common investors, in order to predict the fluctuation of the stock prices take into consideration any financial instrument like Capital Asset Pricing Model and any technique of company's valuation. Therefore, fundamental analysis plays a critical role in investment decisions. Factors such as the behavior of investors do not affect the share prices. However, over the last decades economists and psychologists have tried to detect a pattern in the share prices that will be explained by investor's psychology. Theories such as the disposition effect (The disposition effect states that investors have the tendency to sell the shares that maximize their wealth and hold the ones that bring losses to an investment portfolio) will be rejected in this dissertation (Shefrin & Statman, 1985).

Bearing the above in mind, the next factor that played a critical role in the construction of the model was the value of the companies. If indeed investors pay attention to the results of the fundamental analysis, they will probably assess the value of each company in order to proceed to investment decisions. The recent crisis in the global financial markets was an inspiration for the analysis to focus on the financial health of each company.

Corporations run numerous risks. One of the basic risks is the risk of bankruptcy which can be expressed as the potential probability of the corporation's termination which leads shareholders to lose all their initial capital. The notion of bankruptcy is confused and that causes its definition to be very difficult. One aspect of bankruptcy comprises the cases where corporations encounter unsurpassed problems of liquidity and therefore are led to cessation of payments which will eventually lead to the termination of business' operations. The recognition of the symptoms which signal the definite cul-de-sac of liquidity with those symptoms that signal the lack of liquidity but do not lead to bankruptcy are the main difficulties in order to define the term of bankruptcy. The other aspect of bankruptcy is defined from legislation (Altman, 1984). The demarcation of juridical bankruptcy requires the assistance of legislation, where the observance of special regulations along with the

juridical acceptance plays the most critical role in the determination of bankruptcy. It becomes crystal clear that analysts and researchers are interested for the economic aspect of bankruptcy. Especially the detection of factors that characterize and affect bankruptcy is a subject that has troubled many times the academic community. The last 50 years scholars have striven to observe special values of the above factors in order to detect early enough the symptoms of bankruptcy. Beaver (1966), in his pioneer study, mentioned extensively the problem of bankruptcy. Having used a number of financial ratios, he tried to find a possible connection between business failure and accounting figures. Table 3 highlights the above correlations.

TABLE 3



Source: Beaver, W., (1966), 'Financial ratios as predictors of failure', Journal of accounting research, Vol 4, pp71-111

The univariate analysis that is used in Beaver's study revealed that the financial ratio of cash flows divided by total liabilities had predicted value 87%. However, whether

the analysis to detect business failure with univariate analysis seems too easy in Beaver's research, the complexity of business make the predictors too simple to interpret the factors which a business to failure. Nevertheless, in 1968 Altman with the help of Discriminant Analysis found 5 key ratios that predict business failure. Discriminant analysis as a statistical technique separates two or more samples with different characteristics (in Altman's case the one sample was the healthy companies and the other was the problematic ones) and produces a Discriminant function which is a linear combination of the above characteristics (independent variables). Based on the Discriminant function, Altman calculated a value (the well known z-score) for each company. Z-score used to separate the healthy companies from those which were under bankruptcy. The original function of Altman's Z-score is as follows:

$$Z = 0.012 x1 + 0.014 x2 + 0.033 x3 + 0.006 x4 + 0.999 x5$$

Where the variables of x are calculated with the next ratios:

1. x1: Working capital /total assets
2. x2: Retained earnings/total assets
3. x3: Earnings before interest and taxes / total assets
4. x4: Market value of the equity/total debt
5. x5: Sales /total assets

The predictors are based on key figures of balance sheet and income statement. The above makes the model more historical, however the variable x4 which compromises the impact of the market value makes Z score a powerful prediction tool. However, Altman et al (1977) proposed an extended version of the above model, which incorporated the factors of company's size and the coverage ratio in order to predict better businesses' failure. Nevertheless, the first model will be applied to current study because produces better results in short term period such is the time window of the first mandatory adoption of I.F.R.S.

Bearing in mind the market value variable on Altman's Z score, if the original function rearranged, the total market value of a corporation can be calculated as follows (Thavikulwat, 2004):

$$Value = \frac{Zscore * Total - Debt}{0,006} - 0,012x1 - 0,014x2 - 0,033x3 - 0,999x5$$

Until so far the methodology examined 2 variables that will crucial to the construction of model that will depict the magnitude of the impact. But how exactly the above figures was been calculated? The Capital Asset Pricing Model according to Sharpe (1964) and Lintner (1965) can be calculated by the following equation:

$$E(RI) = RF + \beta [E(rm) - RF] \quad (1)$$

The critical question for the research was the implementation of the C.A.P.M to a real case such as the Greek capital market. The implementation was as follows:

Firstly, the coefficient of β was calculated in order to depict the risk level of each company. As it is mentioned in the literature review the β can be calculated as:

$$\beta = \frac{Cov(ri, M)}{VAR(rM)} \quad (2)$$

The factor COV indicates the covariance between the stock price's return with the return of the total market. The covariance was calculated based on the statistical equation:

$$Cov(ri, M) = \frac{1}{90-1} \sum_{i=1}^{90} (Ri - \overline{Ri})(RM - \overline{RM}) \quad (3)$$

Ri : indicates the daily returns of each share price based on the equation:

$$Ri = LN\left(\frac{CL.P}{CL.P_{-1}}\right) \quad (4), \text{ Where CL.P denotes the closing price of the share}$$

for one day and the $CL.P_{-1}$ denotes the closing price of the share the previous day.

The time range for the above calculations was from 31/12/2005 to 30/6/2006. The natural logarithm LN was been used in order to prevent problems of heteroscedasticity (Breusch& Pagan, 1979).

RM : indicates the daily returns from the same period 31/12/2005 to 30/6/006 of the Athex Composite Share Price Index. In order to depict the percentage changes in the values of the A.C.S.P.I, the methodology followed the same notion as the calculation of Ri (equation 4).

$\overline{Ri}, \overline{RM}$ Indicate respectively the arithmetic mean of share price's return and the arithmetic mean of Athex Composite Share Price Index's return.

The factor VAR in the equation 2 depicts the variance of the markets' return which transformed with the use of the natural logarithm.

The variance was calculated based on the statistical expression of:

$$VAR(RM) = \frac{\sum_{T=1}^{123} (RM - \overline{RM})^2}{123 - 1}$$

In order to derive the final outcome for the equation 1, the return of the risk free rate and the expected return for the total market must be assessed. The methodology accepted that the risk free rate can be derived from a Government bond of 10 year maturity. According to the Bank of Greece, the above bond returns 4.58 % (<http://eng.bankofgreece.gr/en/statistics/>). The calculation of the expected return of the market was derived from the annual percentage changes of Athex Composite Share Price Index from 2/1/1990 to 30/6/2006. After the transformation of annual percentages with the use of the natural logarithm, the arithmetic mean of the above figures has been calculated. Finally, the difference between E (rm) and RF has given the outcome for the risk premium, Risk premium =5,845%. It is worth to mention that the above results are consistent with those of other researches in different countries, where the risk premium fluctuates from 4% to 6 % (Ibbotson & Sinquefeld, 1976).

The final part of the calculations compromises the assessment of Altman's Z score and the Total Value of each company in the sample. In the previous pages has been mentioned the exact formula for Z-Score and for valuation. However, the most crucial part for the evaluation of Z-score was the factor x4 which consists from two parts: the market value of the equity and the total debt. The market value of the equity was calculated as follows:

*Average share price from 31/12/2005 to 30/6/2006*Outstanding shares in 2005*

It is worth to mention that the outstanding shares has been used in order to depict more precisely the market value of equity in the period under investigation (Stock splits, stock repurchases have been eliminated). The other terms of the Z-score's equation have been pulled from the financial statements as has been described before.

To sum up, until so far the analysis focused on basic calculations that have been made in order to evaluate the expected return of each company in the sample based on C.A.P.M and the total value for the above sample based on Z-score . But how these two financial instruments can be used in order to highlight the impact of calculation? The final part of this section describes the hypotheses that have been made in order to find a single model that could describe the impact of adoption of I.F.R.S in the Athens Stock Exchange.

Bearing in mind that the C.A.P.M is able to describe the cost of capital for each company, it can be also seen as the minimum expectation of investors concerning each company's share price return (Botosan, 2006). If we accept the term minimum, then C.A.P.M will leave space for investors to adjust their portfolios not only according to the risk profile of each company but also to other factors that can not be compromised in the C.A.P.M. According to the above the first hypothesis is:

H1: The actual return of a share price differs from the expected return based on C.A.P.M

Taking into consideration the researches that have shown the impact of adoption of I.F.R.S in financial statements and in the cost of capital, the analysis expect that the above readjustments in financial figures, as the value relevance literature postulates, have major impact in investors' beliefs. Therefore the second hypothesis can be written as follows:

H2: The difference between the expected return of each share and the actual return based on the period 31/12/2005 to 29/12/2006 is correlated with the percentage difference in total valuation of a company

If we accept that not only the total valuation of a company plays critical role in investors judgements but also crucial figures of the balance sheet and income statement which can be used from investors to perform a financial statements analysis based on key financial ratios, then the impact of I.F.R.S in total assets, total liabilities, current assets, currents liabilities and sales can affect investors' perspectives

H3: The difference between the expected return of each share and the actual return is correlated with the percentage differences in total assets, total liabilities, current assets, current liabilities and sales

Finally, it is proven from other researches that companies which adopt voluntary the International Accounting Standards or compiled financial statements both with National GAAP and other accounting systems which are based on fair value accounting such as US GAAP, prepare investors for the convergence in accounting

regimes. Armstrong et al (2009) examined information prior to the adoption of I.F.R.S in Europe. Sixteen events concerning the announcements of I.A.S.B have been scrutinized in order to depict the impact in investors' beliefs. Having used a regression model with dummy variables such as the Information Quality Factor, the research proved that investors took into consideration the above events. Concerning the fact that many companies in Europe do not provide enough disclosures in their financial statements, the study has shown that the I.F.R.S adoption helped the above companies to decrease the information asymmetry. In the same line with the above study, we expect that companies which provide any information concerning the adoption of I.F.R.S in Greece or their shares are listed to Stock Exchange Market except from A.S.E's prior to the mandatory adoption, will affect investors decisions.

H4: The difference between the expected return of a share and the actual return is strongly correlated with any prior information that has been given by companies to the investor community

Before the analysis proceeds to the final construction of the model, it is worth to mention that the factor of actual return for each share has been calculated as follows:

$$AR = LN\left(\frac{CL.P}{CL.P_{-1}}\right)$$

Taking the hypotheses and the previous mentioned calculations for C.A.P.M and Total valuation into consideration the final model is as follows:

$$AR(i) - E(Ri) = \alpha + \beta\Delta TV + \beta_1\Delta TA + \beta_2\Delta CA + \beta_3\Delta TL + \beta_4\Delta CL + \beta_5\Delta S + \beta_6 PR.INF + \varepsilon$$

Where AR (i)-E (Ri) indicates the difference between the expected return and the actual return of a share. The Greek letter Δ in front of TV (total valuation), TA (Total assets), CA (Current assets), TL (total liabilities), CL (Current liabilities), S (Sales) and PR. INF (Prior information) depicts the percentage difference based on the adoption of I.F.R.S. The letter ε is the error term of the linear regression.

The next part of the analysis will focus on the results of the statistical analysis. Moreover the comparison of the outcome of the study with other papers and possible limitations and implications will be discussed.

Statistical analysis and the final outcome

In order to depict the key differences between International Accounting Standards and the Greek accounting the analysis focus on arithmetic mean of basic figures on the balance sheet and income statement. The table below highlights basic descriptive statistics for both Greek accounting and International Accounting Standards. As is it clearly observed, the arithmetic mean of total assets, total liabilities, current assets and current liabilities is higher under International Accounting Standards than Greek GAAP. Bearing in mind that Greece according to its accounting system can be characterized as a code law country (like German and France); its accounting system is based on historical cost. Therefore, the conservatism of Greek accounting is depicted to the above results of statistical analysis. The fair value notion of I.F.R.S where the valuation of assets is done in current values is the main cause for the above differences in the arithmetic means. The results below are consistent with the findings of Dimitropoulos & Asteriou (2008) who found that the conservatism in Greek accounting practices have been increased from 1995 to 2004.

TABLE 4

Group Statistics

	ACCOUNTING REGIME	N	Mean	Std. Deviation	Std. Error Mean
TOTAL ASSETS in millions	IFRS	90	2515,9538	8064,43629	850,06622
	GRGAAP	90	2442,6878	7881,69935	830,80406
TOTAL LIABILITIES in millions	IFRS	90	2210,2899	7566,41010	797,56965
	GRGAAP	90	2131,4604	7406,47221	780,71072
CURRENT ASSETES in thousands	IFRS	90	2138435	7756290,888	817584,8
	GRGAAP	90	2112723	7590105,399	800067,4
CURRENT LIABILITIES in thousands	IFRS	90	609839,1	2059164,369	217055,0
	GRGAAP	90	549231,3	1917375,043	202109,1
SALES in millions	IFRS	90	462,0656	936,29891	98,69457
	GRGAAP	90	464,0823	927,98602	97,81832
EARNINGS B. TAXES in thousands	IFRS	90	41778,57	116759,92498	12307,58
	GRGAAP	90	42076,10	121431,63898	12800,02

In order to compare the above means and to evaluate the statistical difference of the arithmetic means, the analysis has run an independent T-test. The hypotheses that have been tested for the above test is as follows:

H₀: The arithmetic mean of Total assets, total liabilities, current assets current liabilities, sales and earnings before taxes under Greek GAAP is the statistically the same under I.F.R.S

The above hypothesis can be written as $H_0: M.gr = M.ifrs$
The alternative hypothesis is $H_1: M.gr \neq M.ifrs$

The next table highlights the results for the independent T-test for the above hypothesis.

TABLE 5

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
TOTAL ASSETS	Equal variances assumed	,011	,917	,062	178	,951	73,26604	1188,6328	-2272,36	2418,891	
	Equal variances not assumed			,062	177,907	,951	73,26604	1188,6328	-2272,37	2418,900	
TOTAL LIABILITIES	Equal variances assumed	,013	,908	,071	178	,944	78,82955	1116,0764	-2123,61	2281,273	
	Equal variances not assumed			,071	177,919	,944	78,82955	1116,0764	-2123,62	2281,280	
CURRENT ASSETES	Equal variances assumed	,003	,954	,022	178	,982	25711,901	1143919,9	-2231678	2283102	
	Equal variances not assumed			,022	177,917	,982	25711,901	1143919,9	-2231685	2283109	
CURRENT LIABILITIES	Equal variances assumed	,145	,704	,204	178	,838	60607,712	296582,10	-524662	645877,2	
	Equal variances not assumed			,204	177,102	,838	60607,712	296582,10	-524682	645897,5	
SALES	Equal variances assumed	,000	,986	-,015	178	,988	-2,01670	138,95698	-276,232	272,19834	
	Equal variances not assumed			-,015	177,986	,988	-2,01670	138,95698	-276,232	272,19849	
EARNINGS B. TAXES	Equal variances assumed	,008	,927	-,017	178	,987	-297,53092	17757,165	-35339,2	34744,12	
	Equal variances not assumed			-,017	177,727	,987	-297,53092	17757,165	-35339,6	34744,49	

The t test has two directions. In the first direction the test suggests that the variances between the sample of Greek accounting and the sample of I.F.R.S are equal. The second direction presupposes exactly the opposite. Using the test of Lavene which controls the above assumptions and checks the hypothesis of equal variances, the results depict that the hypothesis of equal variances for all cases is accepted ($p\text{-value} = \text{Sig} > 0,05$). Moreover the results indicate that the differences in arithmetic means for all cases are not statistically different since the significance (2- tailed) level for all cases are over 5%. Thus in the current case we accept the null hypothesis that the means of the above accounting figures are statistically the same. Comparing the above results with prior researches in the problem at hand, the analysis reveals some discrepancies. Athianos et al (2004), having examined a sample of 40 Greek companies which adopted voluntarily the I.F.R.S, found that the arithmetic mean of total assets and total liabilities was statistically different. However the case was the same for earnings and sales. In both studies the arithmetic mean of the above is

statistically the same. Nevertheless, the outcome for both studies is the same. I.F.R.S under the regime of fair value accounting, evaluates with current prices the figures in the balance sheet which entails higher prices for fair value than the conservative Greek accounting. The differences in the independent T-test can be possibly occurred by the fact that the one study used data prior to the adoption and the current dissertation after the mandatory adoption.

Before the analysis proceeds to the statistical test of the regression model, it would have been great omission if the results of Z-score had not been scrutinized.

TABLE 6

Group Statistics					
Accounting regime		N	Mean	Std. Deviation	Std. Error Mean
ZSCORE	IFRS	90	,8099069	,81370869	,08577243
	GRGAAP	90	,8598150	,81374219	,08577596

TABLE 7

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ZSCORE	Equal variances assumed	,035	,851	-,411	178	,681	-,04990809	,12130303	-,289285	,18946899
	Equal variances not assumed			-,411	178,000	,681	-,04990809	,12130303	-,289285	,18946899

Table 6 represents the arithmetic mean for Altman's Z score under I.F.R.S and under Greek accounting. It becomes crystal clear that under International Accounting Standards the probability for a company to fail is lower than Greek accounting. The reason for the above difference is probably occurred from the higher values of total assets and total liabilities that are recognized based on the fair value accounting. The underlying assumption of the above should be the decrease in the information asymmetry between corporations and investors. Unfortunately, the analysis did not detect such analysis in recent literature concerning the impact of I.F.R.S in the prediction of failures. Nevertheless, it is worth to observed that the arithmetic mean both for International Accounting Standards and Greek accounting is statistically the same as the table 6 highlights, 2 tailed significance level over 0,05. Moreover, bearing

in mind the Altman's threshold for the prediction of bankruptcy, where the results of z-score can be interpreted as (Calandro 2007):

1. If $Z > 2.99$ then the firm is not at risk of distress, Safe zone.
2. If $Z < 1.88$ then the firm will probably go bankrupt, Distress zone.
3. If $1.88 \leq Z \leq 2.99$ then the firm is at risk of financial distress, Grey zone

The most Greek corporations in the sample are on Distress zone. In fact the above outcome is aligned with the economic condition that exists in Greece the last 3 decades.

The last part of the statistical analysis is going to analyze the results from the proposed linear regression model and will provide comparisons from other researches. Bearing in mind the proposed model:

$$AR(i) - E(Ri) = \alpha + \beta\Delta TV + \beta_1\Delta TA + \beta_2\Delta CA + \beta_3\Delta TL + \beta_4\Delta CL + \beta_5\Delta S + \beta_6 PR.INF + \varepsilon$$

The first statistical term that should have been examined was the r^2 .

Table 8

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,738 ^a	,545	,506	,20436035	,545	14,005	7	82	,000	2,198

a. Predictors: (Constant), DIFF VALUATION, DIFF TOT ASSET, PRIOR INFOR, DIFF CUR LIABILI, DIFFER SALES, DIFF CUR ASSETS, DIFF DEBT

b. Dependent Variable: AR(i)-E(Ri)

Table 8 presents the first results of the regression model. The value R denotes the absolute value for the coefficient of linear correlation. However the value R square, which is the square of the absolute value of R, measures the proportion or the percentage of the whole variability of dependent variable which is explained from the multiple regression model. In the above case, the total independent variables can explain 54.5% of the fluctuation of the dependent variable. The regression's coefficient R square denotes that the higher is the value of R square the better for the line of regression to be adjusted in the data. It is worth to mention that a lower value for R^2 do not denote necessarily lack of correlation between the dependent and independent variables. It can be a strong relation but not a linear one. Bearing in mind

that the current research is done in the field of accounting, the value of R^2 can be seen as quite strong. Moreover the level of F test along with its significance level (p-value <5%) provide another evidence for the predictive value of independent variables. Finally, the last statistic of Durbin –Watson which measures on of the basic assumptions of the multiple regression is quite sufficient (around 2). It is worth to mention that the Durbin –Watson indicates the assumption of residuals independence. The above means that the regression model presupposes that all the pairs of residuals have covariance equal to zero. However the high value of R^2 do not necessary means that the above model is well fitted concerning the sample. In order to have a more clear aspect for the independent variable, the analysis will follow the Anova test, which is based on the F distribution.

Table 9

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,094	7	,585	14,005	,000 ^a
	Residual	3,425	82	,042		
	Total	7,519	89			

a. Predictors: (Constant), DIFF VALUATION, DIFF TOT ASSET, PRIOR INFOR, DIFF CUR LIABILI, DIFFER SALES, DIFF CUR ASSETS, DIFF TOT DEBT

b. Dependent Variable: AR(i)-E(Ri)

Table 9 indicates the results for the F test. Using the above table, it can be easily extracted that the possibility of all the independent variables in the regression model to be zero is very small since the significance level is below 0,05. It is worth to mention that the number 4,094 indicates the variance which is explained from the regression model and the 7,519 highlights the total variance of the data set. The difference between the above numbers is the variance which is not explained by the model. However the most crucial result from the regression analysis, expect from R^2 , is the analysis of the β coefficients. The examination of the above results will highlight the validation of the hypotheses that have been mentioned in the section of methodology.

Table 10

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,044	,042		1,044	,299		
	DIFF CUR ASSETS	-,408	,187	-,204	-2,185	,032	,637	1,570
	DIFF CUR LIABILI	-,167	,129	-,114	-1,298	,198	,719	1,391
	DIFF TOT ASSET	-,321	,435	-,149	-,737	,463	,135	7,400
	DIFF TOT DEBT	,539	,419	,279	1,286	,202	,118	8,504
	DIFFER SALES	1,401	,474	,372	2,955	,004	,351	2,847
	PRIOR INFOR	,051	,051	,086	1,006	,317	,763	1,311
	DIFF VALUATION	1,018	,354	,467	2,878	,005	,211	4,743

a. Dependent Variable: AR(i)-E(Ri)

Table 10 presents the results for beta coefficients of the regression model. Scrutinizing the above table, the analysis reveals that the variables of ΔTA (percentage difference in total assets), ΔTL (percentage difference in total liabilities) and Prior information are not statistically significant for the regression model since their significance level is higher than the accepted p value (0,05). The above can also be concluded if we control the regression analysis for the Variation Inflation Factor. One of the most problems in the multiple regression is the multicollinearity. The above problem appears when an independent variable is correlated with another independent factor. Therefore, through the use of the one variable the other independent variable can be explained. Thus, the existence of the above variables can not be inserted into the regression model. The Variation Inflation Factor measures the above problem and when takes values higher than 5 signals the above problem (Steward, 1987). As it is crystal clear from the table 10 the variable of total assets and total debt should be excluded from the analysis. Bearing in mind that the significance level for prior information is 0,317 and the results from the V.I.F, the analysis run the regression from the beginning without the above factors. The possible explanation for the above can be derived from the fact that the corporations in Greece which provide any information concerning the adoption of I.F.R.S were very few in order to affect the whole sample. Another possible explanation concerning the exclusion of the variable PRI.INF is that possibly the information about the adoption of I.F.R.S which provided from early adopters wan not have enough quality and quantity in order to affect investors. The above result is consistent with the dissertation's assumption concerning the fact that none investor have the appropriate information to readjust his portfolio prior to the adoption of I.F.R.S. The insignificance level of total assets and total liabilities is probably caused form the fact that the above accounting figures are

more general in the balance sheet and do not reveal sufficient information for investors. Taking the above results into consideration, the regression model has been tested without the above variables.

Table 11

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,727 ^a	,529	,506	,20419168	,529	23,833	4	85	,000	2,174

a. Predictors: (Constant), DIFF CUR LIABILI, DIFF VALUATION, DIFF CUR ASSETS, DIFFER SALES

b. Dependent Variable: AR(i)-E(Ri)

Table 12

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,975	4	,994	23,833	,000 ^a
	Residual	3,544	85	,042		
	Total	7,519	89			

a. Predictors: (Constant), DIFF CUR LIABILI, DIFF VALUATION, DIFF CUR ASSETS, DIFFER SALES

b. Dependent Variable: AR(i)-E(Ri)

Table 13

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,087	,026		3,287	,001		
	DIFFER SALES	1,104	,336	,293	3,285	,001	,697	1,434
	DIFF VALUATION	1,311	,182	,602	7,208	,000	,795	1,257
	DIFF CUR ASSETS	-,329	,168	-,165	-1,956	,054	,783	1,277
	DIFF CUR LIABILI	-,099	,121	-,067	-1,815	,048	,811	1,233

a. Dependent Variable: AR(i)-E(Ri)

Tables 11-13 present the new results after the exclusion of the three mentioned variables. The predictive power of the model is declined barely to 52, 90% and remains powerful. Moreover the significance level of the Anova Test is the same p-value <0, 05 and the F statistic presented an increase up to 23, 83. The most crucial part is the table of coefficients. After the exclusion of the three variables, the beta coefficients are all statistically significant under the rule of thumb p-value<0.05. Last but not least the problems of multicollinearity have been resolved, since none variable has V.I.F beyond 2. After the rejection of hypothesis 4 and the revisit of hypothesis 3

the final equation that predicts the market reaction to the adoption of I.F.R.S in Greece is as follows:

$$AR(i) - E(Ri) = \alpha + \beta\Delta TV + \beta_1\Delta CA + \beta_2\Delta CL + \beta_3\Delta S + \varepsilon$$

Unfortunately the comparison with other studies can not be done, since the current research is new in the field of accounting concerning the market reaction to the adoption of I.F.R.S. Nevertheless, it can be seen as a contribution to the studies of the value relevance. Consistent with the above results, Bellas et al (2007) found that the book values are more relevant under International Accounting Standards. The majority of the studies concerning the adoption of I.F.R.S used the regression model where the independent variable is the share price and the independent variables are the book value of equity and the net income. In the same line with the above, Harris & Muller (1999) tested the same model using data from companies that passed from US GAAP to I.F.R.S. Their findings suggest that indeed under International accounting regime the accounting numbers provide investors with more quality information about the fluctuation of the stock prices. The predictive value of their model when was controlled by the differences in the accounting numbers which were derived from the reconciliation table was increased beyond 90%. The apparent discrepancies among value relevant studies, concerning the predictive power of the model, are probably caused from the completely different data set. Nevertheless, the current study have depicted that when the share price is checked for its risk, the difference basically in the total valuation could be a crucial factor in order to determine its future fluctuation.

Conclusion, limitations and further research

The recent regulation of European Union concerning the financial reporting across all European listed companies was the main inspiration of the current dissertation. The mandatory adoption of International Accounting Standards has fluttered the dovescotes of the accounting science. Information nowadays plays the

most crucial role in the procedure of decision making. Investor community strives to find more qualitative information in order to adjust better its investment portfolios. Scholars around the world try to find out ways to move this new wave into the right direction. The aim is one and only one: Global convergence in accounting practices. Whether investors will take advantage of the above effort, it is a matter of time to be proved. The current study highlighted the above efforts of both I.A.S.B and academic community. Evidences from the history of accounting have proved that the process towards more sufficient information is time consuming. Moreover since the field of investigation is Greece, the research provided key differences between the old Greek conservative accounting and the fair value accounting of I.F.R.S. Using a mixture of studies, the current dissertation has proved that the switch of the accounting regime from Greek accounting to I.F.R.S has affected the valuation of companies. The above difference in the valuation has been taken into consideration by investors to readjust their portfolios. The use of Capital Asset Pricing Model has been inserted in a single regression model in order to depict the association of risk and the actual price return. The first model has been changed in order to exclude variables that were not statistically significant for the analysis. Finally, a revised model has been constructed and its statistically predictive power has been reexamined. The outcome of the study postulates that when investors take into consideration the risk profile of each company, the differences in the valuation, current assets, current liabilities and sales can predict the share prices within a period of six months. However, since the current study is new in the academic literature, its findings were impossible to be compared with other studies. Further more the use of Capital Asset Pricing Model has proved that did not compromise many figures in order to explain the beliefs of investors. Moreover the assumptions of C.A.P.M along with the assumptions of the current study make the findings of the model powerless to fully explain the actual movements in the capital market. One more limitation of this study was the limited time horizon due to the fact that Greek companies provide only the first year of the mandatory adoption the reconciliation table. Last but not least as the current research focus on the Greek accounting, which from each nature is a conservative system, the findings can not be generalized in different countries where the accounting system is shareholder's oriented. Bearing in mind the above limitations, further researches can be done in other countries where the accounting system is stakeholder's oriented. This is vital to the countries that are concerning the adoption of I.F.R.S. Moreover the use

of different financial tools is proposed in order to generalize the findings of the current study. The use of Weighted Average Cost of Capital and the Tobin's q can replace the C.A.P.M and Z score respectively. Last but not least, the time of this study can be expanded to interim financial reports of the same year in order not only to examine more timely information but also to prevent creative accounting that can be possibly done by the management at the end of the year.

Facing the corporations like human beings, none financial research can highlight the complexity of their operations. Moreover it is difficult or impossible for a simple model to compromise factors that can affect the judgment of investors. Nevertheless, models, such as the proposed, can only be seen as simplifications of the real world.

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