

Value relevance of accounting information in the early years of crisis in Greece

Maria Rodosthenous¹

¹Department of Accounting and Finance, School of Business and Economics, Piraeus University of Applied Sciences, Egaleo, Greece

Email: mrod@teipir.gr

Abstract

Anyone could agree that the Greek economy has suffered a lot in the period of financial crisis, specifically since 2010 when Greece faced up the fact of bankruptcy. Financial crisis had negative impact on firms' performance and especially on their profitability and liquidity. Hence, many firms lost a significant part of their market value. Efficient market theory states that market reflects all the available financial information. In the period of financial crisis, it is important for investors to make their decisions in an efficient market environment. This study explores the change of the value relevance of financial reporting, information in the early years of crisis. Analyzing a sample of Greek listed firms for the period 2010-2012 we found evidence that earnings of firms tended to be more relevant than book value as previous studies had stated before.

Keywords. Value relevance, financial statements, accounting information

1. Introduction

Since 2010, the Greek economy has suffered an intense financial crisis which has resulted to a 25% loss of the GDP (Skordoulis et al., 2014). This crisis had negative impacts on public organizations (Pothos et al., 2014; Arimira et al., 2016; Chalikias et al., 2016) while on the same time, most of the public sector firms have faced problems concerning their performance.

According to GAAP, the accounting information must be useful to the decision makers. For this purposes the reported financial information, must be relevant, adequate and has to give an accurate and precise financial view of firms. Shareholders investors, financial analysts and everyone who has to make a decision on a firm need precise accounting information. Specifically the demand for useful accounting information tends to be bigger in an environment of a Globalised Economy. Moreover, the accounting information tend to be important when an industry or a whole economy suffers a crisis (Skordoulis et al., 2014). IFRS development offers a common framework of the reporting of financial information for the investors and shareholders but the adoption of IFRS from European Countries premises that reported accounting

information, according IFRS, must also be more useful and relevant as it is stated by the IASB.

The purpose of this study is to explore the value relevance of accounting information in Greece after the adoption of IFRS from the Greek state. It has been already known that there are many studies in which the value relevance of financial statement, after the adoption of IFRS have been explored. Our innovation and also contribution in this study is that we investigate also the value relevance of the Greek listed firms accounting information for the first three years of crisis in Greek Economy. The structure of this study is as follows:

We first explore the recent research literature for the value relevance of accounting information, focused specifically in financial reports of Greek firms listed in Athens stock Exchange. We will analyze our hypothesis in the next chapter, where we will also explain our methodological approach. Then we analyze our data and discuss our results. Finally, we compare our findings with those of the relevant research studies.

2. Literature review

In the beginning of this chapter we explore the impact of the adoption of IFRS on the reporting of accounting information. A study of Hellenic Capital Manuel Commission has shown approximately 2,5% increase on Equity of listed firms in Athens Stock Exchange (A.S.E) and also 6% net profit after taxes which are reported within the framework of IFRS. Specifically, that study mentioned significant differences in the reporting of accounting information which became from the differential accounting treatment of fixed assets revaluation, intangible assets reporting and differed taxes recognition.

In addition, Grant Thornton (2006) stated that more of the 50% of listed firms in A.S.E had positive impact on their equity after the adoption of the IFRS. In the findings of that study, a 4% increase of the profit was attributed on the change of reporting framework from Greek Accounting Standards to International Accounting Standards.

Schleicher et al (2010) found correlation analyzed the cash flow of listed firms in 26 European Countries and found that the adoption of IFRS has positive effect on the operation of Capital Markets. Ballas et al (2010) asked from CFOs to evaluate the reporting information after the adoption of IFRS. Furthermore they examined annual reports of listed firms for a period before and after the IFRS had been put into action. According to the results of their study IFRS improved the reliability, the comparability and the transparency of financial statements.

Karambinis and Hevas (2011) stated that the implementation of IAS may have beneficial effect on the relevance of financial statements. Looking in the same direction Glezakos et al (2012) correlated the book value and earnings per share with the share prices of listed firms in ASE and they concluded that there is a significant

increase year by year of the relation among firms market value and their profits and book value. Recent research for the effect of Economic Crisis on the value relevance of accounting information has shown contrary findings. On the hand Lim and Lu (2011) have shown decreased relevance of the accounting information in the period of Financial Crisis but on the other hand there are studies which show improved value relevance of financial reports in an economic crisis period (Pevalle 2012). Chytis et al estimate that the analysts have to consider of the taxation policy in order to evaluate the financial outcome. Mon et al (2014) found that net income loose relevance but books value explanatory power has been increased in the period of crisis.

The findings of these studies give us evidence that economic crisis could affect the relevance of financial reports information in a different way. Ozcan and Balsari (2010) explained that the effect of an economic crisis on value relevance of accounting information could be depended on special social and economic factors of every individual country. Specifically, in studies of Ho et al (2001) and Davis et al (2006) who investigated the explanatory power of financial information, it is stated that monetary policy recognized as a factor which could explain the asymmetry effect of crisis on relevance of accounting information. Further search for factors which have impact on value, relevance of accounting information has revealed corporate governance as significant one. Habib and Arir (2008) have shown that firms with strong corporate governance exhibit higher value relevance of accounting information. On the other hand Barth and Landsman (2010) stated that in a period of crisis the disclosure of non accounting information is need more than in a no crisis period. They also support the idea that this information had to be disclosure from a high quality Accounting Authorities.

According to the referred studies value relevance of accounting information, in the period of the economic crisis seem to be sensitive in macroeconomic factors, while its increase is depended on the disclosure of information such as corporate governance structure. The corporate governance information mandatory disclosure as imposed by I.A.S in 2010 could affect positively the value relevance of accounting information.

3. Research hypothesis and methodological approach

The value relevance of accounting information was analyzed in many previous studies with the use of Olson model (Fetham and Olson, 1995). Barth et al (2010) stated that so the impact of firms value as the hypothesis of firms operation in non efficient market are embodied in this model. The model is as follows:

$$P_{it} = a + b_0 BV_{it} + b_1 EPS_{it} + E_{it}$$

Where: P_{it} = the market value of the equity per share in the end of period t

BV_{it} = book value per share in the period t

EPS_{it} = earnings per share in the end of period t

E_{it} = residuals from regression

As we mentioned above the main purpose of this study is to examine the value relevance of accounting information in the period of economic crisis. Further it is now accepted that the beginning of economic crisis in Greece has been determined since 2010, which is also the year of mandatory disclosure of Corporate Governance from Greek Firms. Also, as we have seen in the above studies, that the evaluation of the relevance of accounting information was based on the examination of the relationship between market value of firms, on the one hand and their book value and earnings on the other. Looking forward to having comparable findings we will test the following hypothesis:

H₀: Book value and EPS have significant impact on share price firms.

We selected a sample of 150 listed firms in the ASE due to test our hypothesis. In fact the sample includes all the listed firms for which we have available accounting and financial information for the years 2010-2012. Real estate firms insurances, banks and other financial institutions and organizations were excluded from the sample. Following Feltham and Olshan (1995) we examine the variables of their study as follows:

Book value per share for a period t , (BV_{it}) share price in the end of the period t (P_{it}) and earnings per share of the period t (EPS_{it}). Specifically we develop a multiple regression model where BV_{it} and EPS_{it} are the independent variables and P_{it} will be the dependent one. More specifically we will examine the statistical significance of the two independent variables coefficients and the variation which have been explained from the regression. In the next chapter, we will present and discuss the results of our analysis.

4. Findings

As we have already explained the evaluation of the accounting information's relevance is the research scope of this study. For this purpose we analyze 3 variables in a regression model using accounting information from the financial statement of 200 listed firms for the period 2010-2012. In total available 570 values for each variable for the whole examined period. In the next table we present how the firms of our sample are distributed per sector of their activity.

As we see in Table 1, the firms of our sample become from the sectors of industry, commerce and services. We next explore the ability of both EPS and Book Value to explain the share price of firms, for the 3 years period (2010-2012) also in an annual basis. First, we present the descriptive statistics for the examined variables (Table 2).

Furthermore, as we see in Table 2 the market share price is lower enough from the book value share price. This is expected due to the impact of economic crisis in Greece to the share prices in the Athens Stock Exchange. It is common sense that during the first 3 years of economic crisis share holders and investors lost their confidence for the Greek Capital Market with fatal consequences for the share prices

and especially for non sophisticated investors and stock holders. The question in which we will approach an answer then is: Did the decrease of share prices had significant impact on its relevance with the accounting information and vice versa? Table 3 shows the results from the multi ó regression analysis we did for giving an answer to this question.

Table 1.Firms distribution.

Sector	Number of Firms	Percent
Oil @ Gas	3	1,5%
Chemicals	7	3,5%
Basic resources	14	7%
Construction @ Materials	23	11,5%
Industrial goods @ services	26	13%
Food @ Beverage	23	11,5%
Personal @ Household goods	35	17,5%
Health Care	9	4,5%
Retail	10	5%
Media	10	5%
Travel @ Leisure	15	7,5%
Telecommunications	1	0,5%
Technology	20	10%
Ailities	4	2%
Total	200	100%

Table 2.Descriptive for P, BV, EPS (2010-2012).

Variable	Mean	Std deviation	Variance	Minimum	Maximum
P	0,457	0,591	0,349	0,01	5,7
BV	1,513	0,615	0,378	0,11	2,9
EPS	0,011	0,653	0,426	-5,5	8,4

The reported results of Table 3 indicate that EPS seem to have significant effect on share price in a level of significance at least 1%. In contrast BV doesn't have impact on share price of firms in the period of economic prices in a level of significance of 10%. Hence answering the question we started above we believe that there is evidence in our findings which shows that although EPS are relevant with market price of firms even in the period of crisis. It does not happen the same with Book Value of firms. Moreover, we found that only the regression model explains the 38% of the total variability. In other words the accounting information, which is used. In Olson model for the evaluation of value relevance of financial reports, does not explain more than 38% of the share price variability. This finding seem to be relevant with the approach that there are non-financial factors, which may affect on share price changes. In the

next chapter, we will compare our finding with those of the previous literature and we state research questions for future extended research.

Table 3.Regression analysis for the impact of BV and EPS on PV.

Invariables	N	COEF	S _{dt} E	P _{value}	R ² _{adj} (0,38)
BV	571	-0,541	0,357	0,15	
EPS	571	0,215	0,031	0,001	

5. Conclusions

The main purpose of this study was to explore the value relevance of accounting information which are reported under the IAS in the early years of economic crisis in Greece. Although the value relevance of financial reports of Greek firms has been investigated in previous studies after the adoption of IAS there is no evidence in recent reported for the impact of crisis in the value relevance of the reported accounting information. In after words the research question could be stated as follows. Do the investors take into account the financial information for making their decisions more than they wed to do before the financial crisis² for that purpose we have explored, using the Olson model, the value relevance of the financial information for a three years period (2010 ó 2012), when financial crisis infected also Greek economy.

Our findings have shown that EPS are relevant with market value of firms in a level of significance though the Book Value doesn't seen to be relevant in a significance level less than 15%. According to these findings the previous research results have not been verified in a period of crisis specifically our findings are in contrast with those of Mon et al. for the period of crisis. Also studies for the relevance of accounting information which have been disclosed from Greek firms before crisis have shown more relevance within market value and book value and EPS (Karabinis&Hevas, 2011; Glerakos et al., 2012).

The exploration of the period 2010 ó 2012 and not more years a limitation of this study. We believe that further research for the period after 2012 will show if our evidence, that value relevance of financial information in the period of crisis tends to be weaker, will be confirmed. In addition corporate governance level could be inserted in the model for testing the impact of corporate governance in value relevance of financial statements, as Habb and Arir have estimated. Modification of corporate governance reporting in 2011. Was also a limitation for this research to include corporate governance as a variable in our model? Finally we believe that an analysis within sectors could decrease the high volatility, of the examined variables, which was another limitation for this study.

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