

VALUE RELEVANCE OF GROUP FINANCIAL STATEMENTS BASED ON ENTITY VERSUS PARENT COMPANY THEORY: EVIDENCE FROM THE LARGEST THREE EUROPEAN CAPITAL MARKETS

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Financial statements' main objective is to give information on the financial position, performance and changes in financial position of the reporting entity, which is useful to investors and other users in making economic decisions. In order to be useful, financial information needs to be relevant to the decision-making process of users in general, and investors in particular. Regarding consolidated financial statements, the accounting theory knows four perspectives (theories) on which the preparation of those statements is based, namely, the proprietary theory, the parent company theory, the parent company extension theory and the entity theory (Baxter and Spinney, 1975). Of practical importance are especially the parent company extension perspective and the entity perspective. The IASB and FASB decided (within an ED regarding the Improvement of the Conceptual Framework) that consolidated financial statements should be presented from the perspective of the group entity, and not from the perspective of the parent-company. However, this support for the entity theory is to our knowledge not backed by empirical findings in the academic literature. Therefore, in our paper we set to contribute with empirical arguments to finding an actual answer to the question about the superior market value relevance of one of the two concurrent perspectives (theories). We set to carry out an empirical association study on the problem of market value relevance of consolidated financial statements based on the entity theory respectively on the parent company (extension) theory, searching for an answer to the above question. In this sense, we pursued an analysis of market value relevance of consolidated accounting information (based on the two perspectives) of listed entities between 2003-2008 on the largest three European Stock Exchanges (London, Paris and Frankfurt). The obtained results showed that a „restrained” entity perspective, which would combine elements of entity theory (by focusing on the whole group equity) and elements of parent company extension theory (by focusing on income corresponding to majority interest), would have a superior relevance compared to the classical versions of the two mentioned perspectives.

Keywords: Consolidated Financial Statements, Entity Theory, Parent Company Theory, European Capital Market, Market Value Relevance

JEL Classification: M40, M41

I. Introduction and Literature Review

Financial statements' main objective is to give information on the financial position, performance and changes in financial position of the reporting entity, which is useful to a wide range of users in making economic decisions. In order to be useful, financial information must be relevant to the decision-making process of users in general, and investors in particular, meaning that it must have the capacity to influence their economic decisions. In fact, relevance constitutes one of the main characteristics of financial information quality (Francis et al. 2004: 968). Moreover, in the revised Conceptual framework (2010), IASB named relevance and faithful representation as the two fundamental qualitative characteristics of financial information (QC5). Therefore, in order to make assessments on the quality of information of financial statements, it is absolutely necessary to quantify this relevance (capacity to influence) of financial information.

An appropriate environment to perform such a measurement is the capital market, where investors' decisions (as users of financial information) are reflected directly in the share price of the reporting entity. In this context, market value relevance is measured by the ability of financial

information to capture or summarize information that influences share prices (Francis and Schipper 1999: 325). According to the same authors market value relevance means the existence of a statistical correlation/association between financial information and prices or returns, and also the fact that this information explains market prices to an extensive measure, starting from the presumption of the efficient market in which prices reflect the available information (Francis & Schipper 1999: 326).

Regarding consolidated financial statements, the accounting theory knows four perspectives (theories) which the preparation of those statements is based upon, namely, the proprietary theory, the parent company theory, the parent company extension theory (which is an improved parent company theory) and the entity theory (Baxter and Spinney, 1975). Of practical importance are especially the parent company extension perspective and the entity perspective (theory). While the entity theory presents assets, liabilities and transactions from the perspective of the whole group as an economic entity, the parent company (extension) theory focuses on assets, liabilities and transactions (only) from the perspective of the parent company and its shareholders (Küting and Weber, 2006).

Within the exposure draft (for phase A) regarding the improvement of the Conceptual Framework – entitled „Objective of Financial Reporting and Qualitative Characteristics and Constraints of Decision-useful Financial Reporting Information”, the IASB and FASB decided that consolidated financial statements should be presented from the perspective of the group entity, and not from the perspective of the (owners) parent-company. However, this support for the entity theory is to our knowledge not backed by empirical findings in the academic literature. Topics regarding group financial statements have been approached by several authors within the last two decades (e.g. Harris et al., 1994, Niskanen et al. 1998, Abad et al. 2000, Goncharov et al., 2009, Müller, 2011 – which investigate the relevance of consolidated financial statements as compared to individual financial statements; Bartov et. al, 2005, Jermakowicz et al., 2007, Barth et al., 2007, Lin and Paananen, 2007 – which investigate the impact of IFRS adoption on consolidated financial statements). However, from what we know, the topic regarding the influence of accounting theories on the value relevance of consolidated financial statements was tackled empirically only by Abad et al. (2000). In that reference paper, however, statistical evidence based on a sample of Spanish firms listed on the Madrid Stock Exchange shows that (from the point of view of market value relevance) closeness to the entity theory is not justifiable. Therefore, in our study we set to contribute with empirical arguments to finding an actual answer to the question about the superior market value relevance of one of the two concurrent perspectives (theories).

Considering all these aspects, we set to carry out an empirical association study on the problem of market value relevance of consolidated financial statements based on the entity theory respectively on the parent company (extension) theory, searching for an answer to the above question. In this sense, we pursued an analysis of market value relevance of consolidated accounting information (based on the two perspectives) of listed entities between 2003-2008 on the largest three European Stock Exchanges (London, Paris and Frankfurt).

II. Research Methodology

In this empirical research we pursued the analysis of market value relevance of consolidated accounting information on companies listed on the largest three European stock markets (London Stock Exchange, Paris Stock Exchange and Frankfurt Stock Exchange) in 2003-2008. The main criteria for the selection of companies is the belonging to the main index which includes the first 100 of the largest and most traded companies on that particular stock exchange (FTSE 100, EURONEXT100, HDAX 110). We excluded financial and insurance companies from the sample because their structure and accounting practices differ significantly from those of non-financial companies (Hellström, 2006: 335). As well, to eliminate composition differences of the sample

from one year to the other (which would affect comparability of results in time), we excluded companies that have not been listed on the stock exchange for the whole analyzed period. At the same time, to increase the homogeneity of the sample and to use the same time span (31.03 – 30.04) to determine average share price, companies with closing dates different from 31.12 were excluded. Therefore, after going through these steps, the final sample is made up of 98 companies, respectively 588 firm-year observations. We computed average closing share prices for 31.03 – 30.04 of each year, thus neutralizing possible daily fluctuations of the prices, caused by factors that are not linked to the financial information published in the annual reports.

For the purpose of this study, we formulated the following hypothesis concerning the comparison of the value relevance between entity theory based and parent company extension theory based consolidated financial statements:

Information supplied by consolidated financial statements in the view of entity theory are more relevant (market value relevance) than information supplied by consolidated financial statements in the view of parent company extension theory.

In order to compare the value relevance of information supplied by consolidated financial statements based on the entity theory respectively on the parent company theory, the following empirical models were elaborated:

$$\text{Model 1: } Pit = \alpha_0 + \alpha_1 * BVit + \alpha_2 * Eit + \varepsilon_{it} \quad (1)$$

$$\text{Model 1: } Pit = \alpha_0 + \alpha_1 * CiBVit + \alpha_2 * CiEit + \varepsilon_{it} \quad (2)$$

Where

Pit	=	share price of company i in year t
BVit	=	book value of group equity/share of company i in year t
Eit	=	group earnings (net income)/share of company i in year t
CiBVit	=	book value of group equity related to the controlling interest/share of company i in year t
CiEit	=	group earnings related to the controlling interest /share of company i in year t

This models measure the degree of association between share price and accounting information supplied by financial statements (equity and net income). The basis for this models is the Ohlson (1995) valuation model, which expresses share price as a function of current accounting value of equity plus discounted value of future (abnormal) results.

We statistically measured the explanation power of these models quantified by adjusted R². Confirming the first hypothesis assumes that explanatory power of model 1 (based on the entity theory) is superior to the explanatory power of model 1 (based on the parent company theory).

III. Results

To test the hypothesis we compared the explanatory power of model 1, as exponent of entity theory and model 2, as exponent of parent company theory (Table no. 1). While the explanatory variables of model 1 refer to group financial information (based on the entity theory), the variables in model 2 present financial information referring only to the controlling interest in the group (i.e. based on the parent company theory).

Table no. 1: Empirical results for regression models 1 și 2

Period/ Sample	Characteristics		MODEL 1		Characteristics		MODEL 1				
		Const.	Bv	E	F	Adj. R ²	Const.	CiBV	CiE	F	Adj. R ²
2003-2008 n= 548	Alfa	12.634	0.578	3.802			11.542	0.679	4.269		
	t	11.504***	9.185***	10.252***	507.106	66.30 %	10.336***	10.073***	10.851***	517.882	66.90 %
	VIF	-	2.959	2.959			-	2.645	2.645		
2003 n= 88	Alfa	10.071	0.492	3.465			10.227	0.562	3.473		
	t	5.327***	3.996***	3.317***	69.862	64.70 %	4.990***	3.804***	2.957***	57.826	60.60 %
	VIF	-	2.887	2.887			-	2.803	2.803		
2004 n= 86	Alfa	11.815	0.443	3.237			11.379	0.442	4.063		
	t	6.022***	3.808***	4.517***	79.142	65.90 %	5.536***	3.296***	4.759***	75.284	65.30 %
	VIF	-	2.562	2.562			-	2.59	2.59		
2005 n= 88	Alfa	14.827	0.958	1.98			14.186	1.008	2.643		
	t	5.649***	5.984***	2.140**	95.703	69.00 %	5.096***	5.700***	2.568**	85.703	66.60 %
	VIF	-	3.113	3.113			-	2.746	2.746		
2006 n= 84	Alfa	16.339	0.856	4.418			13.877	0.835	6.526		
	t	6.252***	4.62***	3.638***	156.771	79.40 %	5.234***	4.335***	4.868***	165.147	80.20 %
	VIF	-	4.858	4.858			-	4.165	4.165		
2007 n= 87	Alfa	13.269	0.346	6.237			12.178	0.546	6.17		
	t	4.771***	1.953**	5.922***	121.515	74.20 %	4.659***	3.136***	6.155***	145.668	77.50 %
	VIF	-	4.118	4.118			-	3.617	3.617		
2008 n= 89	Alfa	10.508	0.198	3.877			9	0.301	4.409		
	t	6.258***	1.981**	7.269***	147.698	77.90 %	5.178***	2.806***	8.081***	151.391	78.40 %
	VIF	-	3.634	3.634			-	2.767	2.767		

*** significant at 0.001; ** significant at 0.01; * significant at 0.05; . significant at 0.1

Made by the author

The comparative analysis of the empirical results obtained for the two regression models (Table no. 1) reveals, for the whole sample, a minor difference (of 0,6%) in favour of model 2. By doing this comparison for each year, one can notice a fluctuation in the difference between the explanatory power of the two models, between 4,1% (in favour of model 1) and 3,3% (in favour of model 2). Obviously, these preliminary results (for the analysed complete sample and sub-samples) refute the hypothesis of superior relevance of information provided by consolidated financial statements from the point of view of entity theory.

Table no. 2: Empirical results regarding the difference of relevance between models 1 and 2

		2003	2004	2005	2006	2007	2008	2003-2008
Adj. R ²	Model 1 Ent.T	64.70%	65.90%	69.00%	79.40%	74.20%	77.90%	66.30%
Adj. R ²	Model 2 PaCo.T	60.60%	65.30%	66.60%	80.20%	77.50%	78.40%	66.90%
Δ Adj. R ²	(M1-M2)	4.10%	0.60%	2.40%	-0.80%	-3.30%	-0.50%	-0.60%

Made by the author

Trying to obtain more conclusive results, we applied the two regressions to a smaller sample (n=85), composed only from those observations for which the weight of non-controlling interest in group equity is at least 10% (or in other words, the difference between group equity and the equity corresponding to controlling interest is more than 10%). The results of this analysis (Table no. 3) reveal a slight superiority of the power of explanation of model 2 as opposed to model 1. All these empirical evidence finally lead to refuting the fifth hypothesis regarding the superiority of consolidated information from the point of view of entity theory.

Table no. 3: Empirical results for models 1 și 2 applied on the reduced sample

Period/ Sample	Characteristics		MODEL 1 (reduced sample)				Characteristics		MODEL 2 (reduced sample)		
		Const.	Bv	E	F	Adj. R ²	Const.	CiBv	CiE	F	Adj. R ²
2003-2008 n= 85	Alfa	14.572	0.377	3.843		76.20 %	15.26	0.496	5.047		76.80%
	t	4.881***	3.139**	5.693***	125.712		5.171***	3.353***	6.454***	130.034	
	VIF	-	3.472	3.472			-	2.952	2.952		

**** significant at 0.001; *** significant at 0.01

Made by the author

The very tight results obtained for the two empirical models, as well as the slightly higher correlation of share price to group equity and controlling interest earnings, determined us to investigate the market value relevance of a restricted entity theory, based on group equity – as synthetic measure of the economic power of the group (conferred by total assets and liabilities controlled directly or indirectly by the parent company) and respectively on earnings corresponding to the controlling interest – as measure of group performance corresponding to parent company shareholders. This restricted entity theory would combine, therefore, entity perspective (by focusing on the whole group equity) and parent company perspective (by focusing on earnings corresponding to majority interest). Therefore, this econometric model developed to measure market value relevance of restricted entity theory (equation 3) includes as independent variables group equity/share and group earnings corresponding to controlling interest/share, this last variable actually being the well-known earnings per share (EPS).

$$\text{Model 3: } Pit = \alpha_0 + \alpha_1 * BVit + \alpha_2 * CiEit + \varepsilon it \quad (3)$$

By comparing the obtained empirical results for this model (Table no. 4), applied for the whole sample, as well as for the restricted sample, with the results of models 1 and 2, one can notice the superiority of explanatory power of model 3. This is more marked when applying the model on the restricted sample, in which case the explanatory power of model 7 is with 2,4% higher than model 2, respectively with 3% more than model 1. Considering these results, we conclude that for the (analysed) capital market, consolidated financial statements perceived through the restricted entity theory (as it was defined above) present a superior relevance as opposed to the same statements perceived through entity theory, respectively through parent company theory.

Table no. 4: Empirical results for regression model 3

Period / Sample	Characteristics MODEL 3					Adj. R ²
		Const.	Bv	CiE	F	
2003-2008 n= 548	Alfa	11.836	0.604	4.282		67.50%
	t	10.866****	10.584****	11.277****	532.828	
	VIF	-	2.511	2.511		
2003-2008 n= 85	Alfa	13.858	0.441	4.735		79.20%
	t	4.976****	4.625****	6.944****	149.588	
	VIF	-	2.506	2.506		

**** significant at 0.001

Made by the author

IV. Conclusions

In this study we statistically compared the entity theory and parent company (extension) theory through the point of view of the value relevance of consolidated financial statements. The developed hypothesis regarding the superiority of entity theory (inspired by the joint decision of IASB and FASB to prescribe presenting consolidated statements from the perspective of the group entity) was statistically refuted. This conclusion is, as a matter of fact, in accordance with the empirical results obtained by Abad et al. (2000), according to which there is no justification

(from the point of view of market value relevance) for a conceptual closeness to entity theory. In our study we showed, however, that a „restrained” entity perspective, which would combine elements of entity theory (by focusing on the whole group equity) and elements of parent company extension theory (by focusing on income corresponding to majority interest), would have a superior relevance compared to the classical versions of the two mentioned perspectives. In the end, some aspects regarding the limitations of this study should be mentioned, as well as the perspectives of future empirical research. First, it is possible to raise the problem of sample representativeness (and implicitly of the results obtained) for the German capital markets. In this respect, future research could extend the analysis (and the sample) to other capital markets in Europe, as well as to companies that are not included in the main index of the stock market they are listed on. Second, the obtained results are based only on testing linear price level regression models. Future research could employ nonlinear models, for example logarithmic models (see Hellström, 2006) respectively return regression models (see Bartov et al. 2005). And third, the present study investigates relevance and therefore usefulness for decision making of consolidated financial statements only from the point of view of the investors on capital market. So, a future research theme less approached until now (see Goncharov et al. 2009) would be to investigate the relevance of financial statements from the perspective of other categories of users (for example financial institutions in their role as creditors).

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