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EDITORIAL EJAFB (1): "UPON COMMENCEMENT"

Editor in chief: Prof. PhD DHC Ionel BOSTAN

The launch of a new journal on the scientific publishing market, alongside other publications – in their tens of thousands – certainly cannot be seen as a particularly astounding event. Consequently, we should state that the entire context that defines the emergence of The European Journal of Accounting, Finance & Business is (still) characterized by the presence of certain differences between the national system of scientific research and the system adopted by the member states of the EU and it is a rather well known fact that in order to alleviate those differences, certain rather constrained adjustments and mimetic approaches have been resorted to. On the other hand, renown Romanian researchers ascertain that "when the adjustment of the organizational system of scientific research has been largely completed, this mimetic interest actually ceases, and the Romanian system will face certain problems related to the assessment of its own research focus and to the consolidation of the investment policies and decisions that can be expressed in the same terms as those used in developed countries"[1]. Since we believe that our editorial board – and our chosen associates – has a general idea about both national and European interests in terms of scientific research, we have ventured into this publishing related quest. Undoubtedly, we have considered the research and development aspects deriving from the Europe 2020 Strategy, as well as from the "Romanian strategy in the field of research, technological development and innovation for 2014-2020", along with their main implementation procedures. We could also make a brief reference to the fact that

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[1] P. T. Frangopol, A. D. Corlan, Editorial, REVISTA DE POLITICA ŞTIINTEI ŞI SCIENTOMETRIE, Vol. 1, No.1, March 2012, p. 1-2

one of the goals Romania[2] has set for 2020 is for scientific research investments to reach a share of 2% of the GDP, one percentage of which would come from the private sector, while the average allocation of funds in the field amounted to 2,06% in the EU in 2009. What is even more important is that a share of 3% of GDP is targeted for 2020. The objective is quite achievable, as it was set in collaboration with the National Authority for Scientific Research (ANCS) and the European Commission. Returning to The European Journal of Accounting, Finance & Business (EJAFB), we should argue that it will focus on publishing theoretical, applied, interdisciplinary and methodological work on issues including, but not only, general accounting, governance and sustainability, finance, management, international business etc. We will also consider publishing – to a lesser extent, however – book reviews and comments related to scientific events etc. In agreement with the best practices in the field[3], we also wish our associates and collaborators to make rather brief and specific references to the motivation, forecasting methods and findings in the field, to consider the comparative approaches of their own findings by correlating their research with the existing research in the professional literature and by considering multiple standpoints when analyzing a specific issue. We truly hope that we will manage to gather some of the most preeminent findings contributed by researchers and members of the academic community – as well as by younger or more experienced scientists from the country or from abroad – by creating a solid and valuable framework for some of the most productive debates.

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[2] *** (The chances of fair financing for scientific research) *Şansele finanţării satisfăcătoare a cercetării ştiinţifice*, ECONOMISTUL, No.3127 (4153), 01 June 2010.
[3] P. T. Frangopol, A. D. Corlan, ibid.

THE VALUE RELEVANCE OF EARNING MANAGEMENT IN MANUFACTURING INDUSTRIES BEFORE AND DURING THE FINANCIAL CRISIS

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Abstract

This paper empirically investigates the value relevance of reported earnings during the period 2006-2011 for 193 firms (excluding banks and insurance companies) listed in the Milan Stock Exchange, representing about 91.28% of the stock exchange capitalisation (30 April 2012). The objective of the paper is to analyze: a) the value relevance of earnings, cash flow from operations, discretionary and non-discretionary accruals; b) the effect of Global Financial Crisis on the value relevance of accounting information. The paper contributes to examine different components of earnings and to filling a gap extending the analysis to the financial crisis. To test our hypotheses first, we determined the accruals by applying specific models proposed in the international literature, such as the Jones (1991) model and its subsequent amendments; second, we analysed the value relevance of earnings, cash flow and accruals basing the analysis on Ohlson (1995) model, extensively used in previous value relevance researches. The findings show that cash flow from operations, discretionary and non-discretionary accruals have different value relevance. In addition, the results describe the reduction of value relevance during the economic and financial crisis.

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I.   Introduction

Capital markets rely on credible financial accounting information. Good-quality financial reporting helps investors to better assess firm value and performance and to make improved investment decisions. Financial scandals in the United State and in Europe (for example, Worldcom and Parmalat) have highlighted the importance of financial reporting quality, with special emphasis on earnings quality. Value relevance, earning management and audit quality are the three important elements of earnings quality (Azzali, 2012). Each of these elements are different areas of research in which researchers assess the elements that qualify the quality of earnings.

In particular, the value relevance studies are one of the most important area of "Accounting Studies on Capital Market" and all these studies analyze the Relevance of accounting information. Value relevance studies aim to verify the link between accounting numbers and market value. These studies demonstrate the usefulness of financial information for investors. Event or association studies are kind of value relevance studies developed all around the world with different methods, models, instruments, samples, observations but with a common general objective: to measure the earning quality with the degree of value relevance between accounting numbers and market value of the companies.

Also earning management is an important areas of "Accounting Studies on Capital Market". In this case, the studies evaluate the Neutrality of financial reporting information. Earning management shows the different way that manager employ to exercise the discretional judgment in the financial reporting process and is negatively related to neutrality of information. Earning management is exactly the opposite of neutrality even if neutrality does not means total absence of earning management. Financial reporting are usually characterized by a degree of earning management and neutrality demands the disclose of earning management practices to users. Earning management includes many classes of practices that may be classified for objective (earning smoothing, conservatism, analyst expectations, etc.) and for instruments (accruals divided in discretionary and non-discretionary, real earning management, etc.).

Finally, audit quality is the third area of "Accounting Research on Capital Market". These studies are directly related to earning quality and to the usefulness of

financial reporting information through the "Reliability" and "Completeness". Audit quality can be classified in external and internal audit quality. All these studies are directly related to reliability but the instruments that researchers employ to evaluate the degree of association are different. Audit opinion and audit fee are two of the main instruments used in external audit quality while controls deficiencies, significant deficiencies, material weaknesses or the audit cycle phases are the main instruments employed in internal audit quality. Finally, a way to study the completeness may be represented by all the researches that aiming to measure the compliance of financial reporting to the accounting standards principles and the required degree of disclosure in the accounting schemes and in the notes.

The main aim of our research is to analyze the value relevance of earnings management in manufacturing industries in Italy. In particular, this paper evaluates the relevance and the usefulness of components of earnings: operating cash flows, discretionary and non-discretionary accruals. "Usefulness" is defined as the statistically significant of coefficient of each components of earnings in the regression of market price on earning and its components. The survey was carried out in two phases. In the first, we have determined the accruals applying specific models proposed in the international literature. In particular, our study is based on the Jones (1991) model, and on its subsequent amendments, to determine the accruals. In second step, instead, we have analysed the value relevance of earnings, cash flow and accruals. This second study is based on Ohlson (1995) model which has been used extensively in previous value relevance research.

This study describes earning management and value relevance of a sample of 193 non-financial companies listed in the Milan Stock Exchange over a period of six years 2006-2011, before and during the economic and financial crisis. There are two different phases in this time period: the period preceding financial crisis (2006-2008) and the period of the financial crisis (2009-2011). In the aforementioned period the study investigates:

- the value relevance of components of earnings (cash flows from operations, discretionary accruals and non discretionary accruals);
- the effect of economic and financial crisis on value relevance of cash flows from operations, discretionary accruals and non discretionary accruals.

This paper extends prior work by examining the value relevance of components of earnings for a sample of industrial companies for which there is reasonable expectation of

earnings management. Our tests are designed to analyze whether earnings management impairs the extent to which accounting information is associated with firm value.

In particular, our study extends the literature on the value relevance of accounting information. Prior literature has examined the firm-specific factors that impact the roles of earnings and book value in determining stock price (Barth et al., 2008; Bartov et al., 2005; Cahan, 2000; So and Smith, 2009). We show that the presence of earning management and of accruals is another factor that affect the value relevance of accounting information.

The paper also extends the literature on discretionary and non-discretionary accruals by demonstrating that discretionary accruals are substantially ignored by investors, while non-discretionary accruals have a negative and statistically significant relation with market prices. Cotter (1996) reports that the associations between stock returns and earnings is higher than that with total cash flow for returns of between one and ten years. Balsam et al. (2002) find that for firms where there is ex post evidence of earnings management, discretionary accruals are negatively related to market price over a short window around the release of earnings component information. Our research, which are an association study based on price levels, is consistent with these findings.

Finally, our research extend the literature on effect of economic and financial crisis on the usefulness of accounting information. Choi et al. (2010) have examined the value relevance of earnings components around the period of the Asian Financial crisis. They find that the information value of discretionary accruals was significantly lower during the crisis than in the period pre-financial crisis. The authors argue that managerial incentives to influence contractual outcomes, and investors' pessimism over the quality of financial statements during a crisis, jointly encourage managers to use discretionary accruals more for earnings manipulation rather than for efficient signalling. Consequently, investors discount the value relevance of discretionary accruals, since transitory earnings obstruct them to efficiently evaluate firms' performance and exercise contractual rights during a crisis. Our results are consistent with these findings.

The main results of our research may be summarized as follows: 1) the earnings' components have different value relevance before the financial crisis; 2) discretionary and non-discretionary accruals are negatively related with market value before the crisis; 3) operating cash flow is the earnings' component more value relevant; 4) the economic and financial crisis negatively affects the value relevance of accounting information.

II.   Background

II.1.   Earnings Management

The literature on Earnings Management derives from the first studies carried out in the 1980's in which authors developed models to separate the components most subjected to management, called accruals, from the more objective cash flow components.

McNichols et al. (1988) examined whether accounting managers manipulated earnings and how the provision of bad debts were reported in the absence of earnings management. The objective of that paper was to provide a model using the provision of bad debts as a possible setting. In the absence of a model showing how accounting numbers behave over changing economic conditions, the ability to draw inferences on earnings management is limited. By modelling the provision for bad debts, researchers have attempted to isolate a discretionary accrual proxy that is substantially free of non-discretionary components. They examined a sample of firms where receivables were an important subset of total assets and also where provision for bad debts was high in relation to earnings. Initially, they estimated several ratios related to receivables for all firms on the Compustat 1986 Industrials Tape. The final sample consisted of 2,038 firm-year observations covering the period 1967-85.

In the McNichols et al. (1988) model the part regarding discretionary accruals was the one representing the earnings management (PART = dummy variable that splits the sample into two groups in which one manages the earnings and the other one does not), depending on other variables (X), but because it could not be done directly, was measured by a proxy that included errors (v):

$$\textbf{DA PROXY}_t = \quad + \quad \textbf{PART}_t + \quad ^{K}_{k=1} \quad _k \textbf{X}_{kt} + \textbf{v}_t + \textbf{e}_t$$

Therefore, the discretionary accruals (DA) were measured indirectly by the difference between total accruals (TA) and non-discretionary accruals (NDA): DA = TA – NDA.

The total accruals were measured indirectly using the traditional relationship: TA = E – CF. The earnings (E) were the last line of the income statement before the extraordinary items so as to avoid their random influence. Instead, as far as the cash flow (CF) was concerned, the literature discussed the preference between the balance sheet and the cash flow statement approach. If we were to analyze the sample period, we could see that the balance sheet approach was the one used in the past but, when the cash flow

statement was present, the cash flow from operation disclosed by this document revealed to be better.

The non-discretionary accruals were measured by different models developed by the literature.

The first authors who considered this variable, used the total accruals as proxy for non-discretionary accruals, e.g. Healy (1985) who used the time average of the total accruals or DeAngelo (1986) who used the total accruals in the previous period.

Healy (1985) tested the association between managers' accrual and both accounting procedure decisions and their income reporting incentives. The accrual tests compared the actual sign of accruals for a particular company and year with the predicted sign given the managers' bonus incentives. The changes in accounting procedures tests analyzed the association of these changes and bonus plan incentives. The population selected for this study was made of companies listed on the 1980 Fortune Directory of the 250 largest U.S. industrial corporations over the period 1930-1980.The useable sample with the characteristics required to investigate bonus plans comprised 94 companies with 1527 companies-year observations. It was one of the first papers to use proxy for accruals and was a seminal paper widely cited and considered by the accounting literature.

DeAngelo (1986) investigated the accounting decisions made by managers of 64 New York and American Stock Exchange firms who proposed to purchase all publicly-held common stocks and "go private" during 1973-1982. These management buyouts may engender potentially severe conflicts of interest for insider-managers. As the courts and investment bankers employ earnings-based evaluation methods to assess fair value, managers have incentives to understate reported income in an attempt to reduce the buyout compensation. However, a variety of tests employing the recently developed accrual methodology reveal no indication that managers of sample firms systematically understated earnings in periods before a management buyout of public stockholders. As proxy he used the time series of accruals, suggesting another model to measure them.

The most diffused and accepted models in the accounting studies nowadays are the Jones (1991) model and all the versions that modified it, such as the Dechow et al. (1995) model that adds a consideration on receivables and the Kothari et al. (2005) model that adds the return on assets ROA as control variable.

Jones (1991) tested whether firms that would benefit from import relief (e.g., tariff increases and quota reductions) would attempt to decrease earnings through earnings management during import relief investigations by the United States International Trade

Commission (ITC). The discretionary component of total accruals rather than that of a single accrual is more appropriate in this context because the ITC is interested in earnings before taxes, which includes the effects of all accrual accounts, and, as such, managers are likely to use several accruals to reduce reported earnings. The sample includes 23 firms in 5 industries extracted by Compustat with at least 14 years of data. This paper is the first one that try to include firm characteristics in the model and investigate the difference between cross sectional and time series models.

Dechow et al. (1995) evaluated alternative accrual-based models for detecting earnings management, comparing the specification and the power of commonly used test statistics and the application of the models to a random or a non-random sample of firm-years or alternatively by controlling or not for extreme financial performance. Finally, a modified version of the model developed by Jones (1991) showed to be the most effective in detecting earnings management.

Also Kothari et al. (2005) evaluated alternative accrual-based models for detecting earnings management by analysing the specifications and power of tests and making comparisons. The results suggest that performance-matched discretionary accrual measures enhances the reliability of inferences from earnings management research when the hypothesis being tested does not imply that earnings management will vary with performance, or when the controlled firms are not expected to have engaged in earnings management.

Although the authors have investigated different settings of earnings management, we are interested in their methodology considering it as the basis and have followed it in the subsequent accounting studies.

However, Cormier et al. (2000) underline that the procedures to estimate the coefficients in the model for non-discretionary accruals are less important in countries where the discretionary accruals have a higher magnitude.

Cormier et al. (2000) investigated the relevance of reported earnings in the context of an institutional environment, Switzerland, in which investors focused on dividends. The particularity of the financial reporting environment faced in Switzerland was a higher accounting discretion that managers of Anglo-Saxon firms typically had.

II.2.   Value Relevance

In value relevance studies classifications and taxonomies of numerous and widely differing works have been proposed by many authors (Barth at al., 2001; Beaver, 2002;

Courteau, 2008; Holthausen and Watts, 2001; Kothari, 2001; Devalle, 2010). Some taxonomies isolate value relevance as a field of research lying within Capital Market Research (Beaver, 2002), while others consider it as an independent field (Kothari, 2001). In any case, when facing the topic of value relevance, a key problem is to define the concept because its definition is not unique. For example, Barth et. al. (2001) define value relevance as ''[...] the ability of financial statement information to capture or summarise information that affects share values''. Moreover Holthausen and Watts view value relevance as "the empirical relation between stock market values (or changes in values) and particular accounting numbers for the purpose of assessing or providing a basis for assessing the numbers' used or proposed use in an accounting standard" (Holthausen and Watts, 2001). In brief: methodologically speaking, value relevance indicates the correlation between prices or returns of shares quoted on regulated markets and accounting values (earnings and equity). Market values are dependent variables while accounting values are independent variables. For an accounting value, the more significant the correlation with the dependant variable, the more value relevant it is.

Since the second half of the nineties there has been a strong increase in value relevance studies evaluating the introduction of a set of alternative accounting standards (Harris and Muller, 1999; Ayers, 1998; Niskanen et al., 2000 Beisland, 2009), mostly based on the Ohlson (1995) model. In this study the R_2 is the main explanatory measurement of value relevance.

Methodological issues have sometimes been raised in relation to these studies. For instance, Brown et al. (1999), referring to researches carried out so far, have observed that the increases in value relevance could be a result of scale effects and that there would be a fall in value relevance should the scale effects be eliminated.

In other cases, the usefulness and validity of value relevance studies have been subjected to severe criticism (Holthausen and Watts, 2001). However, this criticism did not discourage researches on value relevance, but rather led to a clearer definition of the theoretical framework to which they referred to and to a clarification on their purpose and implications (Barth, 2001). Therefore, this field of analysis continues to this today and has produced valid contributions to multiple aspects of the quality of financial reporting (Barth et al., 2008).

In value relevance studies examining the effect of the change in accounting standards, a further distinction has been made between voluntary or mandatory adoption. In fact, many researchers have focused on voluntary adoption (Harris and Muller, 1999;

Paananen and Lin, 2008; Christensen et al., 2008; Jermakowicz et al., 2007; Bartov et al., 2005). But since the decisions taken by many governments for mandatory adoption of IAS/IFRS, numerous studies have addressed the impact of mandatory regulation on value relevance (i.e.Horton and Serafeim, 2007, 2009; Soderstrom and Sun, 2007: p. 695; Chalmers et al.; 2011; Ghoncarov and Hodgson, 2011) and this line of research will probably increase further.

Since 2007 (IAS 1 revised, 2007) the IASB has also chosen an all-inclusive concept of income, thus making the problem of the comparison between comprehensive income and net income an important issue for countries under the mandatory adoption of IAS/IFRS. For this reason, many papers analyse the value relevance of the comprehensive income and other comprehensive incomes. The hypothesis is that the comprehensive income has more value relevance than net income (i.e. Biddle and Choi, 2006; Cahan et al., 2000; Brimble and Hodgson, 2005; Wang et al., 2006; Goncharov and Hodgson, 2008; Kanagaretnam et al., 2009). Moreover the results of current studies show mixed results as some authors find an increase in value relevance of the comprehensive income (i.e. Cahan et al., 2000; Biddle and Choi, 2006; Kanagaretnam et al., 2009), while other researchers find that the value relevance diminishes (i.e. Datsgir and Velashani, 2008; Dhaliwal et al., 1999; Lin et al., 2007; Goncharov and Hodgson, 2008; Brimble and Hdgson, 2005).

Some researchers have analyzed the relation between market value and accruals. In their papers the authors have evaluated if accruals are important information for investors' decisions in different contexts. For example, in a first work, using 1986-1995 data from manufacturing firms from 16 countries (including Italy), the authors explored relationship between measures of the value relevance of accounting information (including accruals) and several country-specific factors suggested in prior research (Ali and Hwang, 2000). In particular, the authors found that value relevance was lower for countries with a bank-oriented financial system, but didn't analyze the differences between discretionary and non-discretionary accruals.

In another work, the researchers (Cormier et al., 2000) investigated the relevance of reported earnings and accruals in the context of an institutional environment, in which investors focused on dividends, i.e. Switzerland. The results of this paper indicated that Swiss managers did engage in dividend-based earnings management, that earnings quality signals were used by managers to voluntarily constrain their accounting choices and that the value relevance of earnings was conditional to dividend payments. In particular, in this work the authors analyzed the relation between market value (price at six months after

year-end), cash flow from operations, and discretionary and non-discretionary accruals. In a context in which investors focused on dividends, the researchers found a statistically significant and positive link between accruals and price.

The analyses of value relevance of cash flows, current accruals and non-current accruals in UK is the aim of the paper publish by Akbar et al. in 2011. This study investigates whether various partitions of earnings involving combinations of a cash flow measure of performance and measures of current accruals and non-current accruals improve the ability to explain market value in the UK relative to using earnings alone. The authors show that current and non-current accruals have separate value relevance, but the results are still strongly in favour in this respect. In addition, the finding show that the main source of increase in explanatory power for market values is the separate inclusion of cash flow in the price regression.

Another paper examines the relative value relevance of earnings and book value in the presence of three alternative source of earnings management: short-term discretionary accruals, long-term discretionary accruals and total discretionary accruals (Whelan and McNamara, 2004). In this work, the authors demonstrate that earnings management has an impact on value relevance. In particular, long-term discretionary accruals has a greater impact on the value relevance of earnings and book value of equity than short-term discretionary accruals.

Marquardt and Wiedman (2004) examine whether opportunistic earnings management impairs the value relevance of accounting information as reflected in stock market prices. The authors find evidence of earnings management only for firms that do not voluntarily release a forecast and for other companies there is no evidence of earnings management or decreased value relevance of accounting information.

Cotter (1996) examines the relative ability of the accrual and cash flow accounting models to capture value relevant events. In particular, components of clean surplus accruals earnings (Easton et al., 1992) are compared with components of total cash flow to evaluate their abilities to recognise value relevant events in a timely manner. The results of this study show that the operating cash flows and current accruals recognise value relevant events in a timely manner. Instead, non-current and non-operating accruals become value relevant when longer return intervals are considered in the regression. Especially over longer return intervals, cash flows from financing and investing activities are less value relevant than the other components considered.

Subramanyam and Venkatachalam (2007) examine the importance of earnings and operating cash flows in equity valuation, using ex post intrinsic value of equity as the criterion for comparison. The results suggest that accrual-based earnings dominate operating cash flows as a summary indicator of ex post intrinsic value.

Finally, in the last paper considered, the authors (Lapointe-Antunes et al., 2006) examined whether voluntary disclosure by Swiss firms constrained the use of discretionary accruals to smoothen earnings and explored the effects of voluntary disclosure on the value relevance of earnings and accruals. The results suggested that Swiss firms used discretionary accruals to smoothen earnings but that this relation was reduced for firms that voluntarily disclosed more information in their annual report or that used IAS/IFRS or US Gaap.

Empirical researches on the value relevance in times of financial crisis have led to mixed results. Some studies reveal that the value relevance is significantly lower during the financial crisis (Lim and Lu, 2011). On the contrary, other studies show that the financial crisis has a positive impact on value relevance (Devalle, 2012). Finally one study argues that the same financial crisis can influence value relevance differently in separate countries depending on the country's specific factors (Özkan and Kaytmaz Balsari, 2010).

In conclusion, a high quality set of accounting principles should disclose financial crisis information regardless of the macro-economic condition although there is a possibility that the logical consequence of the deterioration of the macro-economic situation could be more emphasised by non-accounting information (Barth and Landsman, 2010). In this sense, we can assume that during the financial crisis, a set of high quality principles will not produce an increase in value relevance.

III.   Hypothesis

Following the previous literature, our hypothesis connects the value relevance studies to the ones on earnings management. Firstly, following the Jones (1991), Dechow et al. (1995) and Kothari et al. (2005) models, the paper aims to discover the earnings management of discretionary and non-discretionary components of earnings. We have asked ourselves if property, plant and equipment, receivables and return on assets are all instruments employed to manage accounting numbers in the financial statement. Next, we wanted to link earnings management to value relevance. The first hypothesis we tested was related to the value relevance of the components of earnings. Following Kothari and Zimmerman (1995) we tested if operating cash flow, discretionary and non-discretionary

accruals had the same value relevance. In other words we wanted to discover if the price of listed companies is mainly affected by one specific component of the net or comprehensive income or, alternatively, if earnings, operating cash flows, discretionary accrual (like property, plants and equipment) and non-discretionary accruals have the same importance. We expected both a positive relation between earnings, operating cash flows, non-discretionary accruals and prices of listed companies and a negative one from discretionary accruals and prices of listed companies. In the first case, we wanted to demonstrate that earnings and their more objective components are directly related to the companies' market value. Instead, discretionary accruals, are the main instruments through which the financial statement is managed. In this case the investor is aware of the risk associated with this kind of information thus leading us to expect a negative relation between discretionary accruals and the market value of the companies.

H1: The components of earnings (cash flows from operations, discretionary accruals and non-discretionary accruals) have the same value relevance.

The aim of our second hypothesis was to develop the relation between earnings management and value relevance over two distinct time periods: the former before the financial crisis (2006 – 2008) and the latter during the financial crisis (2009 – 2011). We wanted to measure the effects the financial crisis had on the relation between earnings management and value relevance. Following the same literature used in the first hypothesis, we introduced a dummy variable to divide the two periods thus enabling us to test if earnings and its components (operating cash flows, discretionary and non-discretionary accruals) had lower value relevance during the financial crisis compared with the period prior to it.

We expected the same relation showed in H1. The financial crisis could have increased the discretionary components of earnings and, consequently, reduce the value relevance of this important class of information included in financial statement. The financial crisis increased the number of companies with negative performances in their income statement with a probable increase in earnings management to reduce these losses. Finally, we expected the higher level of earnings management negatively affects the value relevance, compared with the period prior to the financial crisis.

H2: The components of earnings (cash flows from operations, discretionary and non-discretionary accruals) have lower value relevance during the financial crisis.

IV.   Methodological aspects and sample

To test our hypothesis, the survey was carried out in two phases. During the first phase we determined the accruals by applying specific models proposed by the international literature. In particular, our study has been based on the Jones (1991) model and on its subsequent amendments, to determine the accruals. During the second phase, we analysed the value relevance of earnings, cash flow and accruals. This second study has been based on Ohlson (1995) model extensively used in previous value relevance researches.

IV.1.   Earnings Management

In international earnings management studies the researchers usually describe the total accruals by using the following models:

$$TA_t/TAs_{t-1} = DA_t/TAs_{t-1} + NDA_t/TAs_{t-1} \qquad [1]$$

Where: TA_t/TAs_{t-1} is the total accruals in year t scaled by total asset at t-1; NDA_t/TAs_{t-1} is the number of non-discretionary accruals in year t scaled by total asset at t-1; DA_t/TAs_{t-1} is the number of discretionary accruals in year t scaled by total asset at t-1.

In particular, total accruals at t is determined as the difference between earnings before extraordinary items in year t (from income statement) and operating cash flow in year t (from cash flow statement) scaled by total assets of the previous period. This variable has been built using Datastream/Worldscope database. Due to some errors in the operating cash flow and due to some missing data, the database has been completed adding data from the financial reporting of the firms in the sample.

The studies of earnings management [1] determine the discretionary accruals as the difference between TA_t/TAs_{t-1} and NDA_t/TAs_{t-1}, and suggest different models to determine the non-discretionary accruals.

In our study, we have used three models to determine the non-discretionary accruals. We repeated the analysis using a fixed effect estimator for panel data or an OLS estimator for pool data.

As there is no clear evidence in existing literature as to which methodology performs better, we have used both in order to have robust results.

The first model we used is the Jones (1991) model:

$$NDA_t/TAs_{t-1} = {}_0 + {}_1(1/TAs_{t-1}) + {}_2(\ REV_t/TAs_{t-1}) + {}_3(PPE_t/TAs_{t-1}) \qquad [2]$$

where: REV_t/TAs_{t-1} is the difference between revenues in year t and revenues in year t-1 scaled by total asset at t-1; PPE_t/TAs_{t-1} is the gross, property plan and equipment in year t scaled by total asset at t-1. We included a constant ($_0$) to reduce heteroskedasticity (Kothari et al. 2005).

The second one was suggested to us by the Dechow et al. model (1995), where the authors modified the Jones (1991) model by adding the following new variable: REC_t/TAs_{t-1}.

$$NDA_t/TAs_{t-1} = {}_0 + {}_1(1/TAs_{t-1}) + {}_2[(\ REV_t/TAs_{t-1}) - (\ REC_t/TAs_{t-1})] + {}_3(PPE_t/TAs_{t-1}) \quad [3]$$

In particular, REC_t/TAs_{t-1} is the difference between net receivables in year t and net receivables in year t-1 scaled by total asset at t-1.

The Kothari et al. (2005) model is the third model we used to determine the accruals. In this case we used the Dechow et al. model (1995) and added a new variable represented by ROA (return on asset) at t-1. In this case, the non-discretionary accruals were determined by the following model:

$$NDA_t/TAs_{t-1} = {}_0 + {}_1(1/TAs_{t-1}) + {}_2[(\ REV_t/TAs_{t-1}) - (\ REC_t/TAs_{t-1})] + {}_3(PPE_t/TAs_{t-1}) + {}_4ROA_{t-1} \qquad [4]$$

The application of models presupposes the preliminary estimate of the coefficient " ". This happens through the regressions of the following equations:

- $TA_t = {}_0 + {}_1(1/TAs_{t-1}) + {}_2(\ REVt/TAs_{t-1}) + {}_3(PPE_t/TAs_{t-1}) + {}_t$, for the first and the second model;

- $TA_t = {}_0 + {}_1(1/TAs_{t-1}) + {}_2[(\ REV_t/TA_{st-1}) - (\ REC_t/TAs_{t-1})] + {}_3(PPE_t/TAs_{t-1}) + {}_4ROA_{t-1} + {}_t$, for the third model.

Then, the coefficients estimated with these regressions are applied to [2], to [3] and [4] to determine the discretionary, non-discretionary and the total accruals for each company of our sample.

The expected signs of the coefficients are identified according to their relation to the components of total accruals. The balance sheet approach allowed us to separately analyze each component of the accruals. For this reason, starting from the relationship with total accruals TA_t = {[(current asset$_t$ – current asset$_{t-1}$) – (cash and cash equivalent$_t$ - cash and cash equivalent$_{t-1}$)] – (current liabilities$_t$ – current liabilities$_{t-1}$) – depreciation and amortization expense$_t$ extraordinary items}, we have analyzed the relation with the different items:

- change in working capital accounts (ΔWCA$_t$) [(current asset$_t$ – current asset$_{t-1}$) – (cash and cash equivalent$_t$ - cash and cash equivalent$_{t-1}$)] – (current liabilities$_t$ – current liabilities$_{t-1}$) from which we expected a positive relation with the revenue variation (β_2>0) because an increase in revenues causes an increase in the receivables (or in the inventory) as a recurrent component of the working capital as well as being a non-discretionary component of the total accruals. Furthermore the Dechow et al (1995) model modified the Jones (1991) model subtracting the receivable variation from the revenue variation because it is more simple to manage earnings on the revenue recognition if they are credit rather than already collected as cash;

- depreciation and amortization expense (D&A$_t$) from which we expected a negative relation with the property, plant and equipment (β_3<0) because their increase would imply greater costs to amortize and largely assumed as recurrent and so non-discretionary. As a consequence higher amortization reduces the total accruals.

However, each of these components include a discretionary part, i.e. the inventory evaluation (LIFO, FIFO, ….) and the choice of the amortization period for the property plant equipment which could be a signal for earnings management. For this reason, the difference between the total accruals and the non-discretionary accruals (the residual of the regression in which the total accruals is the dependent variable) represents the discretionary accruals.

IV.2.   Value Relevance of Earnings Management

The value relevance of reported earnings is examined using the price model (Kothari and Zimmerman, 1995). With this model the usefulness of accounting information is investigated as the relation between the market value and the earning and its components represented, in our study, by cash flows from operations and accruals.

In particular, to analyse the value relevance of earnings, cash flows and accruals, we have used the following models:

$$MV_{it} = \beta_0 + \beta_1 EPS_{it} + \varepsilon_{it} \qquad\qquad\qquad\qquad\qquad [5]$$

$$MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \varepsilon_{it} \qquad\qquad\qquad [6]$$

$$MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \varepsilon_{it} \qquad [7]$$

$$MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}*D + \beta_3 D + \varepsilon_{it} \qquad\qquad [8]$$

$$MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 OCFPS_{it}*D + \beta_4 TAPS_{it}*D + \beta_4 D + \varepsilon_{it} \qquad [9]$$

$$MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 OCFPS_{it}*D + \beta_5 DAPS_{it}*D + \beta_6 NDAPS_{it}*D + \beta_7 D + \varepsilon_{it} \qquad [10]$$

where: MV_{it} is the market value, in this case, the price as of 30 April after the end of fiscal year; EPS_{it} is the earnings before extraordinary items per share; $OCFP_{it}$ is the operating cash flow per share; $TAPS_{it}$ is the total accruals per share; $DAPS_{it}$ is the discretionary accruals per share; $NDAPS_{it}$ is the non-discretionary accruals per share; D is a dummy variable that is equal 1 for the years after the start of the financial and economic crisis and 0 otherwise; $ESP_{it}*D$, $OCFP_{it}*D$, $TAPS_{it}*D$, $DAPS_{it}*D$ and $NDPS_{it}*D$ are the interaction terms that are equal 0 in the 2005-2008 period.

The value relevance of earnings, operating cash flow, discretionary and non-discretionary accruals is measured by the coefficients in model [5], [6] and [7]. In particular, we have analysed the statistical significance (t test and p-value) of each coefficient and, by using Wald's Test, we have analysed the statistical significance of the difference between these coefficients to evaluate those of the earnings' components ($EPS_{it} = OCFPS_{it} + DAPS_{it} + NDAPS_{it}$) is more value relevant.

Reported earnings comprise three components: cash flow from operations, discretionary accruals and non-discretionary accruals. In the Italian context, considering the legal, institutional and economic importance of dividends for investors and taking into account that dividends are based upon reported earnings, it is expected that all three components of reported earnings are positively related to market value in equation [5], [6] and [7].

In model [8], [9] and [10] we have also considered if the financial and economic crisis had affected the value relevance of the variables used in our models. This analysis permitted the identification of a potential change to the value relevance of earnings and accruals during the crisis. Coefficient of the interaction terms and the statistical significance of their difference with other variables (Wald's Test) are of interest in these models to evaluate if accruals are more value relevant before or during the financial and economic crisis.

In this case, we compared the two periods characterised by a different economic situation. Reference is made to the 2006-2008 period in which the financial crisis was not expected and the 2009-2011 period in which the financial crisis was evident. There is in fact a view expressed in literature that accounting values lose their relevance and reliability when extreme financial turbulence affects the real world economy (Barth et al., 2008; Barth and Landsman, 2010). We therefore empirically assessed whether and to what extent accounting information would still be useful for investors.

Scale bias and the heteroskedasticity represent two common problems in value relevance research. In line with previous researches (Barth and Kallapur 1996; Easton and Sommers, 2003; Barth and Clinch, 2009), this study has employed a per share specification to eliminate the scale bias. Subsequently, we also performed and reported our regression with OLS (Ordinary Least Squares), and, to eliminate the effect of heteroskedasticity, we used robust standard errors.

Another issue discussed in the survey concerned the multicollinearity of the model's variables (Verbeek, 2006). Said phenomenon occurs when the variables included in the regression model are correlated between them. In general, the term multicollinearity is used to describe the problem posed by the existence of an approximate linear relation between explanatory variables that generate unreliable regression estimates.

In particular, said relation can affect the independent variables which, however, may involve more than two and even all the variables considered in the model. In any case, in the presence of multicollinearity, the coefficients are estimated, but the results obtained are distorted and hard to comment on. In particular, the distortion increases as the correlation itself increases between the explanatory variables of the model.

In order to measure the existence and the intensity of multicollinearity, the calculation of a specific indicator called Variance Inflation Factors (VIF) is used. As a general rule, it is commonplace to consider a limit value of VIF equal to 4 resulting in greater values requiring interventions to deal with the issue. Consequently, we determined and assessed said indicator in order to measure the level of collinearity between independent variables. For values greater than 4 we calculated single regressions by each of the variables.

We also performed a sensitivity analysis in order to verify the robustness of our findings. In particular, we analyzed the impact of loss firms and of the size in the assessment of value relevance. Following some researchers (Mitra and Hossain, 2009; Entwistle at al., 2010), we have corrected each model by adding a dummy variable (Loss), that is equal 1 if net income is negative and 0 otherwise. Moreover, in order to consider the effect of size of firms, we also corrected the equations by adding another independent variable (Size), that is the natural logarithm of the book value of the total assets (So and Smith, 2009; Bartov et al., 2005). Finally, we have performed a sensitivity analysis in order to verify the robustness of our findings both to determine the accruals and value relevance. In particular, the continuous variables are winsorized at top and bottom 1%.

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IV.3.   Sample

The survey considers a sample of 193 firms listed in the Milan Stock Exchange which, as of 30 April 2012, represented about 91.28% of the stock exchange capitalisation (excluding banks and insurance companies). From the listed companies (212(1) as of 30 April 2012) we have excluded the firms:

- with corporate address outside Italy, in order to avoid influence from contexts different from the Italian one;
- listed after 31 December 2006 and/or no longer listed as of 28 April 2012, to ensure availability of the figures for the whole period considered;
- not providing a consolidated financial statement, to ensure homogeneity of the financial statements considered;
- not closing the financial statements on 31 December, to ensure homogeneity of the date of closure and of the relevant correlations with the stock market capitalizations;
- that did not provide all the necessary information for the analysis;
- banks and the insurance companies.

The survey describes the value relevance of earning, cash flows and accruals for a period of six years (2006-2011). There are two different phases in this time period: the period preceding financial and economic crisis (2006-2008) and the period of crisis (2009-2011). This difference is important because we analysed if the crisis had affected the value relevance of reported earnings and its components.

Table 1 describes the composition of the sample. In Italy the industrial sector is composed of 16 sub-sectors considered in our survey.

Table 1 - The capitalization and frequency as of 30 April 2012 of each industrial sector

Industry FTSE Italy all-share	Frequency			Capitalization/millions		
	Total	Sample	%	Total	Sample	%
Oil and gas	7	7	100.00%	86,390.8	86,386.8	100.00%
Chemicals	3	3	100.00%	424.8	424.8	100.00%
Basic resources	1	1	100.00%	155.1	155.1	100.00%
Construction and materials	15	13	86.67%	5,895.3	5,822.0	98.76%

Industrial goods and services	47	43	91.49%	32,793.0	22,012.7	67.13%
Automobiles and parts	9	9	100.00%	11,275.7	11,275.7	100.00%
Food and beverage	10	9	90.00%	6,533.6	6,526.2	99.89%
Personal and household goods	30	26	86.67%	24,240.2	19,464.4	80.30%
Health care	7	6	85.71%	3,941.8	3,936.7	99.87%
Retail	5	4	80.00%	1,252.1	651.1	52.00%
Media	15	15	100.00%	4,186.6	4,186.6	100.00%
Travell and leisure	9	9	100.00%	4,939.9	4,939.9	100.00%
Telecommunications	4	3	75.00%	16,188.6	16,017.0	98.94%
Utilities	18	16	88.89%	58,071.0	51,906.7	89.38%
Real estate	10	9	90.00%	1,516.6	1,482.6	97.75%
Technology	20	20	100.00%	1,546.6	1,546.6	100.00%
TOTAL	210	193	91.04%	259,351.7	236,734.61	91.28%

The information required in the survey was collected during a two-step process. In the first step, data sources consisted in the Datastream/Compustat databases for the accounting information and for the market values. In the second step, the missing data in the database was collected by the analysis of the:

- consolidated financial statement of the listed companies for accounting information;
- the Milan Stock Exchange website for market values.

The only companies we excluded from the sample were those with missing data also after the second step.

In our survey, we used the earnings, the accruals and their components, the cash flow from operations and the number of shares as of 31 December of each year considered.

Given that there is a time lag problem between the market value and accounting information, for the value relevance analysis, we chose to measure the market value as of April 30 of the year following the date of the financial statements. This guaranteed that the firms' capitalisation measured on this date fully incorporated the effects created by the

disclosure of financial information of the previous year, thus ensuring that the accounting information would be of public domain thus absorbed by investors (Barth et al., 2008; Harris and Muller, 1999).

V.   Summary Statistics

Table 2 shows descriptive statistics on earnings before extraordinary items, operating cash flows, sales, total asset, property, plan and equipment, receivables, equity, current assets, current liabilities and accruals from each model. For each variable, we have reported the mean, median, standard deviation, minimum and maximum value.

Earnings before extraordinary items per share, scaled by price (30 April after the year-end), has a median value of 0.087 and a mean of -0.010. As earnings contain large non-cash expenses like depreciation and amortization, we expect operating cash flow per share to exceed earnings per share. In fact, cash flow from operations has a greater mean than earnings. This is also expected for industrial companies because, in Italy, financial expenses are an important cost that reduce earnings but do not affect the cash flow from operations. The difference between earnings and cash flow is given by the average of total accruals per share that, as expected, is negative.

The mean and median of total assets are 14.35 and 6.353, respectively, whereas the mean and median of current assets and receivable are respectively only 6.548, 2.601 and 3.17, 1.269.

For each model considered, the mean and standard deviations of non-discretionary accruals are lower than that of discretionary accruals. In particular, in Italy total accruals mainly depend on non-discretionary accruals.

Table 2 - Descriptive statistics

Per share value	MEAN	MEDIAN	STD. DEV.	MAX.	MIN.
Price	6.502	2.844	12.57	255	0.04
Total asset	14.35	6.353	29.06	325.14	0.13
Property, plan and equipment	7.49	2.485	21.94	312.69	0.002
Sales	10.43	4.299	27.056	649.69	0.002
Receivables	3.17	1.269	6.77	132.88	0.010

Earnings before extraordinary items	-0.010	0.087	1.99	7.03	-32.62
Operating cash flow	0.582	0.243	2.64	31.32	-38.88
Equity	4.34	1.99	7.05	79.15	0.0049
Current asset	6.548	2.601	12.92	161.79	0.054
Current liabilities	5.529	2.217	11.08	179.39	0.030
Jones model fixed effect:					
- non-discretionary accruals	-0.029	-0.016	0.508	4.701	-3.700
- discretionary accruals	-0.031	-0.001	1.043	9.891	-8.186
- total accruals	-0.060	-0.024	1.130	10.563	-8.292
Jones model pool:					
- non-discretionary accruals	-0.0239	-0.007	0.442	3.743	-3.876
- discretionary accruals	-0.0028	0.0085	1.303	11.028	-11.986
- total accruals	-0.0267	-0.006	1.372	12.944	-12.697
Dechow et al. model fixed effect:					
- non-discretionary accruals	-0.0556	-0.019	0.481	4.311	-5.051
- discretionary accruals	0.0213	0.0187	1.261	9.017	-8.472
- total accruals	-0.0342	-0.006	1.277	7.755	-8.328
Dechow et al. model pool:					
- non-discretionary accruals	-0.048	-0.011	0.407	3.650	-3.558
- discretionary accruals	0.021	0.013	1.324	14.979	-7.967
- total accruals	-0.027	-0.006	1.372	15.583	-8.328
Kothari et al. model fixed effect:					
- non-discretionary accruals	-0.038	-0.021	0.502	4.705	-4.144
- discretionary accruals	0.022	0.018	1.221	8.963	-7.923
- total accruals	-0.016	-0.006	1.327	12.944	-8.328
Kothari et al. model pool:					
- non-discretionary accruals	-0.037	-0.016	0.506	4.003	-6.298
- discretionary accruals	-0.010	0.012	1.117	8.458	-7.964
- total accruals	-0.047	-0.006	1.279	7.755	-9.171

In addition, the cash flow measure has higher standard deviations than earnings. One explanation for this pattern is that accruals off-set extreme negative and positive cash

flow realizations associated with mismatched cash receipts and disbursements over short measurement intervals. If cash flows suffer from temporary mismatching of cash receipts and disbursements, then this suggests that changes in cash flows will show a negative autocorrelation. A large cash outflow during this period is more likely to be followed by a large cash inflow during the following one.

Therefore, changes in cash flows are likely to contain temporary components that are reversed over time. If accruals are used to match cash receipts and disbursements associated with the same economic event, then changes in accruals will also show negative autocorrelation and accruals will be negatively correlated with changes in cash flows, since the change in cash flows is expected to be temporary. This negative correlation is expected to decline over longer intervals as matching problems in cash flows become less severe.

VI.   Results of empirical tests

VI.1.   Earnings Management

The table shows the results for the model used to partition the total accruals in discretionary and non-discretionary accruals. The Jones (1991) and the Dechow et al (1995) models use the same estimates for the coefficients and then change the independent variable used. The Kothari et al (2005) model has different estimates because it considers the ROA as control variable that changes the magnitude of the other coefficients. For this reason, we are presenting two tables: one with the coefficient estimates for the first 2 models and one with the coefficient estimates for the third model.

The results are consistent with the expectations. The coefficients are significant and the coefficient for property, plant and equipment has a negative sign while the coefficient for revenue/receivables has a positive sign. The R^2 is significant and, as expected, the Kothari et al. (2005) model including the profitability as control variable, increased the explanatory power (bigger R^2). Including the year fixed effect, the magnitude (in absolute value) of the coefficient for property, plant and equipment became bigger compared to the magnitude of the coefficient for revenues/receivables but the results are confirmed in both methodologies.

The results are consistent with the literature. The magnitude of the coefficient for property, plant and equipment in Italy is very similar to that of the same coefficient in the US sample contained in the Jones paper (specific sample with only the firms affected by

the import relief investigation). The magnitude of the coefficient in the Jones paper is -0.033 (mean) while ours is -0.0337082/-0.0285799. However, in Italy the magnitude or the coefficient for revenues/receivables is higher (0.0962279/0.1125611) compared to the that showed in the Jones paper (0.035 in mean). This coefficient is more consistent with the findings of Denis et al. (2010) for Switzerland (0.16/0.21).

Table 3 - Accruals Jones (1991) and Dechow et al. (1995) model

Independent variables	Predicted sign	Cross sectional – time series OLS regression fixed effect coefficient (t-stat)	Pooled cross sectional OLS regression coefficient (t-stat)
1/ ASSETS		1527.186 (1.86)*	750.597 (1.33)
PPE / ASSETS	-	-.0337082 (-2.02)**	-.0285799 (-4.12)***
REV / ASSETS	+	.0962279 (3.88)***	.1125611 (4.67)***
Costant		.002135 (0.28)	.004621 (0.87)
Year fixed effects		Included	Not included
Adj. R^2		0.07***	0.08***
Sample size		1105	1105

Table 4 - Accruals Kothari et al. (2005) model

Independent variables	Predicted sign	Cross sectional – time series OLS regression fixed effect coefficient (t-stat)	Pooled cross sectional OLS regression coefficient (t-stat)
1/ ASSETS		1611.369 (1.94)**	1014.658 (1.79)*

PPE / ASSETS	-	-.0332676 (-1.92)**	- .0272289 (-4.07)***
REV- REC / ASSETS	+	.0950585 (3.78)***	.0929902 (4.02)***
ROA		.115741 (0.78)	.2282174 (3.27)***
Costant		-.0019442 (-0.18)	-.0039778 (-0.76)
Year fixed effects		Included	Not included
Adj. R^2		0.11***	0.13***
Sample size		1105	1105

VI.2.   Value Relevance of Earnings Components

The following tables show the results of value relevance analysis. In particular:

- table 5 describes the estimate of [5], [6], [7], [8], [9] and [10] models using the accruals determined with Jones model (1991);
- table 6 describes the value relevance analysis on the accruals calculated with Dechow et al. model (1995);
- table 7 describes the estimate of value relevance model using the accruals determined with the Kothari et al. model (2005).

Before estimating each model we have eliminated all outliers. We have repeated the analysis using a fixed effect estimator for panel data or a OLS estimator for pool data. For each value relevance model we have also performed a sensitivity analysis in order to verify the robustness of our findings. In particular, we have analyzed the impact of loss firms and of the size in the assessment of value relevance and the continuous variables are winsorized at top and bottom 1%. In each table, this analysis is represented by the models marked with the letter "a" (i.e., model [5a], [6a], [7a], [8a], [9a] and [10a]). The estimation of these models confirms the results that emerge without sensitivity analysis.

For each table, models [5], [5a], [6], [6a], [7] and [7a] were estimated to test H1, instead, we used models [8], [8a], [9], [9a], [10] and [10a] to analyze H2.

In addition, the tables show the calculation of the VIF to measure the presence of multicollinearity. The determination of values above or close to 4 for VIF suggested to

estimate simplified models that correlate the price with each independent variable. This way of proceeding allows to reduce the VIF calculated for each independent variable and consequently to break down the problems arising from the estimation multicollinearity. In the analysis below, the VIF has never reached values greater than or equal to 4. It was therefore necessary to estimate a regression for each independent variable.

VI.2.1 Results H1

Consistent with previous studies (Barth et al., 2008; Devalle, 2010; Goncharov and Hodgson, 2011), the analysis shows a positive and statistically significant relation (at 1% level) of earnings with the market value. On the contrary, for each model used to determine the accruals, our first hypothesis is not confirmed because the components of earnings do not have the same value relevance. In particular, some components are not value relevant while the remaining have different coefficients.

Using Jones (1991) model to calculate the accruals and using a fixed effect estimator (panel A in table 5), only operating cash flows and discretionary accruals are value relevant. The regression has an adjusted R2 of 0.189 (model 7, table 5) versus 0.093 when only earnings is used as an explanatory variable (model 5, table 5). As expected, the coefficient of operating cash flows is positive (p < 0.01), while the coefficient of discretionary accruals is negative (p < 0.1). In addition, the coefficient of the operating cash flow is greater and more value relevant than that of earnings and discretionary accruals. These results have not been confirmed using pool data for Jones (1991) model (panel B in table 5). In this case, only earnings (p < 0.01) and cash flow from operations (p < 0.01) are value-relevant with positive coefficients.

The results for the value relevance model using accruals calculated with Dechow et al. (1995) model are presented in table 6. In particular, panel A shows the results of the fixed effect estimator. All estimated models are significant at 1% level. The relation between market price and operating cash flows, discretionary and non-discretionary accruals (R2: 0.182; model 7) is greater than that of model 5 (R2: 0.123). In addition, we find a positive and significant association (p < 0.001) between cash flow and price. Our results also show a negative and significant association (p < 0.1) between non-discretionary accruals and market price. Instead, discretionary accruals are not statistically significant therefore neither value relevant. In panel B of table 6, we have re-estimated the models using pool data and the results have not changed.

Also using the Kothari et al. model for accruals, cash flow from operations (p < 0.001) and non-discretionary accruals (p < 0.1) are value relevant and discretionary accruals are not statistically significant. As expected, the coefficients of cash flows is positive. Instead, the coefficient of non-discretionary accruals is negative.

Finally, consistent with another research (Cormier, 2000), our findings show that operating cash flows is the earnings component which is more value relevant. Instead, although accruals are value relevant, their relation with market price is negative.

VI.2.2 Results H2

During the financial and economic crisis, the earnings components have lower value relevance confirming our second hypothesis (H2). For this analysis, the coefficients of interaction terms with those of other variables need to be compared.

Using Jones (1991) model and fixed effect estimator (panel A in table 5), only the operating cash flow does not change its value relevance during the economic and financial crisis. In particular, the coefficient of cash flow from operating and that of interaction term (OCFPS*D) are different, but this difference is not statistically significant (Wald's test p > 0.1). Instead, other independent variables are not value relevant during the crisis, because the coefficients of interaction terms are not statistically significant.

With Dechow et al. (1995), Kothari et al. (2005) model and with pool data using Jones (1991) model during the crisis each variable considered in the analysis is not value relevant. In fact, each coefficient of each interaction term is not statistically significant.

VII.   Conclusions

The research contributes to verify the value relevance of earnings and their components (cash flows from operations, discretionary accruals and non discretionary accruals) in a significant sample of listed companies in Italy in the period 2006 – 2011.

First, results confirm a positive and statistically significant relation of earnings with market values (H1) but the different components of earnings do not have the same value relevance: operating cash flows are positive related to market values (Jones, Dechow et al. and Kothari et al. model), discretionary accruals are negatively related to market values (Jones model) and non discretionary accruals are negatively related to market values (Dechow et al. and Kothari et al. model). More objective information (cash flows from operation) seem to be more value relevant with all the model employed; the other components of earnings (discretionary and non discretionary accruals) presents a

lower value relevance, probably because more connected with earning management strategies.

Second, H2 is confirmed and the results show that financial crisis decrease the value relevance of earnings and their components with market prices (Jones model). Specifically only the operating cash flows maintain the value relevance during the financial crisis. This result means that financial crisis is not neutral on value relevance and emphasize the previous results: only the objective components of earnings (cash flows from operations) maintain their value relevance. The main instruments of earnings management, instead, during the financial crisis loss their value relevance because investors are afraid that these information are not reliable. For discretionary accruals, our results are consistent with Choi et al. (2010). These authors find that the discretionary accruals was significantly lower during the financial crisis. In particular, they argue that managerial incentives to influence contractual outcomes and investors' pessimism over the quality of financial statements during a crisis, jointly encourage managers to use discretionary accruals more for earnings manipulation rather than for efficient signalling. Consequently, investors discount the value relevance of discretionary accruals, since transitory earnings obstruct them to efficiently evaluate firms' performance and exercise contractual rights during a crisis. For non-discretionary accruals, instead, our results are not consistent with Choi et al. (2010). In fact, also these values are not value relevant during the financial crisis because, for us, the investors consider mainly reliable values.

Table 5 - The value relevance of earnings components from Jones (1991) model

Model 5: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \varepsilon_{it}$

Model 5a: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 Loss + \beta_3 Size + \varepsilon_{it}$

Model 6: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \varepsilon_{it}$

Model 6a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 Loss + \beta_4 Size + \varepsilon_{it}$

Model 7: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \varepsilon_{it}$

Model 7a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 Loss + \beta_5 Size + \varepsilon_{it}$

Model 8: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}*D + \beta_3 D + \varepsilon_{it}$

Model 8a: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}*D + \beta_3 D + \beta_4 Loss + \beta_5 Size + \varepsilon_{it}$

Model 9: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 D + \beta_4 OCFPS_{it}*D + \beta_5 TAPS_{it}*D + \varepsilon_{it}$

Model 9a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 D + \beta_4 OCFPS_{it}*D + \beta_5 TAPS_{it}*D + \beta_6 Loss + \beta_7 Size + \varepsilon_{it}$

Model 10: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 OCFPS_{it}*D + \beta_5 DAPS_{it}*D + \beta_6 NDAPS_{it}*D + \beta_7 D + \varepsilon_{it}$

Model 10a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 OCFPS_{it}*D + \beta_5 DAPS_{it}*D + \beta_6 NDAPS_{it}*D + \beta_7 D + \beta_8 Loss + \beta_9 Size + \varepsilon_{it}$

Panel A: Price specification – OLS robust standard errors – Jones model – Fixed effect

Model	Constant	EPS_{it}	$EPS_{it}*D$	$OCFPS_{it}$	$OCFPS_{it}*D$	$TAPS_{it}$	$TAPS_{it}*D$	$DAPS_{it}$	$DAPS_{it}*D$	$NDAPS_{it}$	$NDAPS_{it}*D$	D	Loss	Size	R^2 adj.	VIF
5	5.497 (17.142)***	3.098 (2.541)**													0.093 (106.224)***	
5a	6.613 (2.938)***	3.033 (2.036)**											-0.413 (-0.357)	-0.074 (-0.415)	0.092 (35.510)***	EPS: 1.317 Loss: 1.358 Size: 1.105

6	3.829 (11.491)***			3.492 (6.817)***		-1.266 (-1.992)**								0.178 (112.432)***	OCF PS: 1.011 TAPS: 1.011
6a	11.971 (5.731)***			3.666 (6.447)***		-1.265 (-2.007)**						-1.489 (-2.536)**	-0.593 (-3.879)***	0.189 (61.115)***	OCF PS: 1.220 TAPS: 1.011 Loss: 1.131 Size: 1.218
7	3.826 (11.445)***			3.470 (6.922)***			-1.152 (-1.896)*		-1.719 (-1.518)					0.178 (75.109)***	OCF PS: 1.017 NDA PS: 1.018 DAP S: 1.009
7a	11.925 (5.766)***			3.646 (6.567)***			-1.165 (-1.929)*		-1.662 (-1.463)			-1.481 (-2.505)**	-0.589 (-3.904)***	0.189 (49.000)***	OCF PS: 1.227 NDA PS: 1.019 DAP

														S: 1.009 Size: 1.219 Loss: 1.131
8	6.051 (11.836)***	4.294 (3.982)***	-1.959 (-1.059)										0.106 (41.947)***	EPS: 2.891 EPS*D: 2.858 D: 1.044
8a	7.240 (3.353)***	4.380 (3.696)***	-2009 (-1.112)							-1.297 (-2.092)**	0.042 (0.047)	-0.093 (-0.603)	0.105 (25.198)***	EPS: 3.468 EPS*D: 2.928 D: 1.059 Loss: 1.391 Size: 1.121
9	5.359 (10.217)***			2.396 (3.937)***	2.175 (2.022)*	-2.762 (-2.042)**	2.318 (1.573)			-3.042 (-4.585)***			0.209 (55.204)***	OCFPS: 1.873 OCFPS*D: 2.10

														2 D: 1.281 TAPS: 2.203 TAPS*D: 2.175
9a	12.528 (5.930)***			2.628 (4.147)***	2.146 (1.994)**	-2.689 (-1.994)**	2.212 (1.504)			-2.859 (-4.399)***	-0.925 (-1.680)*	-0.541 (-3.617)***	0.216 (41.558)***	OCFPS: 2.035 OCFPS*D: 2.121 D: 1.323 TAPS: 2.207 TAPS*D: 2.178 Loss: 1.169 Size: 1.224
10	5.343 (10.129)***			2.373 (3.872)***	2.195 (2.080)**	-2.581 (-2.014)**	2.143 (1.507)	-3.465 (-1.678)*	2.998 (1.281)	-3.026 (-4.562)***			0.208 (39.521)***	OCFPS: 1.876 OCFPS*

															D: 2.119 D: 1.282 NDA PS: 2.117 DAP S: 2.237 NDA PS*D: 2.123 DAP S*D: 2.222
10a	12.453 (5.945)***			2.606 (4.107)***	2.164 (2.052)**			-2.528 (-1.979)**	2.052 (1.448)	-3.317 (-1.595)	2.828 (1.201)	-2.845 (-4.381)***	-0.925 (-1.676)*	-0.536 (-3.612)***	0.215 (32.372)***	OCF PS: 2.040 OCF PS*D: 2.137 D: 1.324 NDA PS: 2.122 DAP S: 2.240 NDA

							R²	
								PS*D: 2.127 DAPS*D: 2.224 Loss: 1.169 Size: 1.226
Panel B: Price specification – OLS robust standard errors – Jones model – Pool								
5	5.251 (16.946)***	3.986 (3.464)***					0.123 (143.706)***	
5a	7.004 (3.1832)***	4.129 (2.789)***			0.225 (0.210)	-0.141 (-0.822)	0.122 (48.188)***	EPS: 1.388 Loss: 1.410 Size: 1.115
6	3.717 (10.985)***		3.825 (7.127)***	-0.259 (-0.556)			0.172 (107.135)***	OCF PS: 1.001 TAPS: 1.001
6a	12.607 (5.897)***		4.055 (6.718)***	-0.273 (-0.590)	-1.491 (-2.470)**	-0.653 (-4.179)***	0.187 (59.175)***	OCF PS: 1.211 TAPS: 1.00

4											Loss: 1.135 Size: 1.222
7	3.661 (10.848)***		3.817 (7.282)***		-0.025 (-0.054)	-2.360 (-1.553)				0.181 (75.864)***	OCF PS: 1.006 NDA PS: 1.006 DAPS: 1.000
7a	12.560 (5.948)***		4.048 (6.915)***		-0.039 (-0.083)	-2.373 (-1.565)		-1.483 (-2.459)**	-0.653 (-4.236)***	0.194 (50.096)***	OCF PS: 1.218 NDA PS: 1.007 DAPS: 1.003 Size: 1.223 Loss: 1.135
8	6.315 (11.630)***	3.208 (2.402)**	1-714 (0.795)			-1.984 (-3.159)***				0.136 (54.298)***	EPS: 1.695 EPS*D: 1.68

													7 D: 1.030
8a	7.497 (3.433)***	3.431 (2.228)**	1.815 (0.817)						-2.041 (-3.268)***	0.715 (0.730)	-0.108 (-0.657)	0.135 (32.939)***	EPS: 1.973 EPS*D: 1.711 D: 1.052 Loss: 1.452 Size: 1.119
9	5.322 (9.449)***			3.061 (5.795)***	1.633 (1.523)	-1.091 (-1.250)	1.308 (1.292)		-3.144 (-4.612)***			0.196 (50.722)***	OCFPS: 1.847 OCFPS*D: 2.097 D: 1.285 TAPS: 2.465 TAPS*D: 2.458
9a	13.381 (6.003)***			3.348 (6.041)***	1.597 (1.498)	-1.084 (-1.259)	1.280 (1.277)		-2.942 (-4.400)**	-0.986 (-1.695)*	-0.611 (-3.987)*	0.206 (38.849)***	OCFPS: 2.00

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											*		**			6 OCF PS* D: 2.117 D: 1.326 TAPS: 2.468 TAPS*D: 2.460 Loss: 1.171 Size: 1.226
10	5.152 (9.384)***			3.159 (5.701)***	1.506 (1.434)			-0.666 (-0.756)	0.943 (0.917)	-4.099 (-1.733)*	3.639 (1.259)	-2.972 (-4.448)***			0.204 (38.380)***	OCF PS: 1.847 OCF PS* D: 2.111 D: 1.288 NDA PS: 1.996 DAPS: 2.577 NDA

														PS*D: 2.004 DAPS*D: 2.573
10a	13.166 (5.993)***			3.443 (5.979)***	1.468 (1.416)			-0.664 (-0.767)	0.925 (0.909)	-4.058 (-1.722)*	3.524 (1.225)	-2.772 (-4.298)***	-0.987 (-1.714)*	-0.608 (-3.968)***	0.215 (31.909)***	OCFPS: 2.009 OCFPS*D: 2.130 D: 1.330 NDAPS: 2.003 DAPS: 2.583 NDAPS*D: 2.011 DAPS*D: 2.573 Loss: 1.172 Size: 1.231

	Wald(1)	Wald(2)	Wald(3)	Wald(4)	Wald(5)	Wald(6)	Wald(7)	Wald(8)	Wald(9)	Wald(10)	Wald(11)	Wald(12)
6	34.954***	29.303***	-	-	-	-	-	-	-	-	-	-
6a	32.545***	27.886***	-	-	-	-	-	-	-	-	-	-
7	39.756***	29.316***	15.738***	12.532***	-	-	-	-	-	-	0.343	2.331
7a	37.540***	29.271***	14.915***	12.564***	-	-	-	-	-	-	0.256	2.352
8	5.663**	0.223	-	-	-	-	-	-	-	-	-	-
8a	6.214**	0.243	-	-	-	-	-	-	-	-	-	-
9	19.526***	20.687***	-	-	0.021	1.025	3.369*	1.738	-	-	-	-
9a	19.581***	22.728***	-	-	0.104	1.618	3.150*	1.731	-	-	-	-
10	21.428***	16.942***	8.716***	8.795***	0.014	1.351	3.212*	2.383	2.286	2.382	0.349	2.121
10a	22.224***	20.277***	8.436***	9.080***	0.088	2.053	3.040*	2.309	2.036	2.308	0.269	2.192

*,** and *** indicate statistical significance at the 10%. 5% and 1% level.

(1)Wald's Test between 1 and 2 fixed effect estimator

(2)Wald's Test between 1 and 2 pool data

(3)Wald's Test between 1 and 3 fixed effect estimator

(4)Wald's Test between 1 and 3 pool data

(5)Wald's Test between 1 and 4 fixed effect estimator

(6)Wald's Test between 1 and 4 pool data

(7)Wald's Test between 2 and 5 fixed effect estimator									
(8)Wald's Test between 2 and 5 pool data									
(9)Wald's Test between 3 and 6 fixed effect estimator									
(10)Wald's Test between 3 and 6 pool data									
(11)Wald's Test between 2 and 3 fixed effect estimator									
(12)Wald's Test between 2 and 3 pool data									

Table 6 - The value relevance of earnings components from Dechow et al. (1995) model

Model 5: $MV_{it} = {}_0 + {}_1EPS_{it} + {}_{it}$							
Model 5a: $MV_{it} = {}_0 + {}_1EPS_{it} + {}_2Loss + {}_3Size + {}_{it}$							
Model 6: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2TAPS_{it} + {}_{it}$							
Model 6a: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2TAPS_{it} + {}_3Loss + {}_4Size + {}_{it}$							
Model 7: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2DAPS_{it} + {}_3NDAPS_{it} + {}_{it}$							
Model 7a: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2DAPS_{it} + {}_3NDAPS_{it} + {}_4Loss + {}_5Size + {}_{it}$							
Model 8: $MV_{it} = {}_0 + {}_1EPS_{it} + {}_2EPS_{it}*D + {}_3D + {}_{it}$							
Model 8a: $MV_{it} = {}_0 + {}_1EPS_{it} + {}_2EPS_{it}*D + {}_3D + {}_4Loss + {}_5Size + {}_{it}$							
Model 9: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2TAPS_{it} + {}_3D + {}_4OCFPS_{it}*D + {}_5TAPS_{it}*D + {}_{it}$							
Model 9a: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2TAPS_{it} + {}_3D + {}_4OCFPS_{it}*D + {}_5TAPS_{it}*D + {}_6Loss + {}_7Size + {}_{it}$							
Model 10: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2DAPS_{it} + {}_3NDAPS_{it} + {}_4OCFPS_{it}*D + {}_5DAPS_{it}*D + {}_6NDAPS_{it}*D + {}_7D + {}_{it}$							
Model 10a: $MV_{it} = {}_0 + {}_1OCFPS_{it} + {}_2DAPS_{it} + {}_3NDAPS_{it} + {}_4OCFPS_{it}*D + {}_5DAPS_{it}*D + {}_6NDAPS_{it}*D + {}_7D + {}_8Loss + {}_9Size + {}_{it}$							
Panel A: Price specification – OLS robust standard errors – Dochow et al. model – Fixed effect							
Model	Constant	EPS_{it}	$EPS_{it}*D$	$OCFPS_{it}$	$OCFPS_{it}*D$	$TAPS_{it}$	$TAPS_{it}*D$	$DAPS_{it}$	$DAPS_{it}*D$	$NDAPS_{it}$	$NDAPS_{it}*D$	D	Loss	Size	R^2 adj.	VIF

5	5.054 (17.392)***	5.064 (5.194)***												0.161 (195.787)***	
5a	7.908 (3.727)***	5.686 (4.567)***										1.286 (1.478)	-0.257 (-1.648)*	0.165 (67.980)***	EPS: 1.472 Loss: 1.464 Size: 1.127
6	3.715 (10.983)***			3.839 (7.183)***		-0.269 (-0.577)								0.174 (108.363)***	OCFPS: 1.003 TAPS: 1.003
6a	12.586 (5.885)***			4.068 (6.753)***		-0.281 (-0.606)						-1.494 (-2.467)**	-0.651 (-4.167)***	0.188 (59.774)***	OCFPS: 1.215 TAPS: 1.004 Loss: 1.135 Size: 1.222
7	3.646 (10.925)***			3.750 (7.265)***				-0.088 (-0.191)	-2.213 (-2.068)**					0.182 (76.780)***	OCFPS: 1.030 NDAPS: 1.056 DAPS: 1.026
7a	12.778 (5.921)***			3.984 (6.910)***				-0.092 (-0.202)	-2.311 (-2.140)**			-1.418 (-2.520)**	-0.671 (-4239)***	0.197 (50.895)***	OCFPS: 1.244 NDAPS: 1.056 DAPS: 1.027 Size: 1.222 Loss: 1.135
8	5.838 (11.354)***	4.937 (4.473)***	0.023 (0.011)							-1.50 (-2.487)**				0.165 (68.187)***	EPS: 2.037 EPS*D: 2.019 D: 1.052
8a	8.191 (3.838)***	5.598 (4.577)***	0.032 (0.016)							-1.567 (-2.582)**	1.497 (1-693)*	-0.221 (-1.461)		0.170 (42.699)**	EPS: 2.477 EPS*D: 2.026 D: 1.072 Loss:1.486 Size: 1.136
9	5.325 (9.438)***			4.064 (5.799)***	1.658 (1.561)	-1.103 (-1.251)	1.306 (1.282)			-3.150 (-4.620)***				0.198 (51.254)***	OCFPS: 1.882 OCFPS*D: 2.126 D: 1.284 TAPS: 2.737 TAPS*D: 2.719
9a	13.358 (5.990)***			3.350 (6.035)***	1.626 (1.538)	-1.091 (-1.254)	1.272 (1.262)			-2.948 (-4.406)***	-0.979 (-1.678)*	-0.609 (-3.971)***		0.208 (39.213)***	OCFPS: 2.044 OCFPS*D: 2.143 D: 1.326 TAPS: 2.737

#													R²	
														TAPS*D: 2.721 Loss:1.172 Size: 1.227
10	5.187 (9.549)***		3.051 (5.669)***	1.573 (1.527)		-0.902 (-1.050)	1.215 (1.207)	-3.935 (-2.055)**	3.078 (1.392)	-3.032 (-4.552)***			0.206 (38.847)***	OCFPS: 1.917 OCFPS*D: 2.182 D: 1.285 NDAPS: 2.232 DAPS: 2.827 NDAPS*D: 2.227 DAPS*D: 2.827:
10a	13.385 (6.011)***		3.343 (6.030)***	1.528 (1.501)		-0.889 (-1.052)	1.194 (1.200)	-3.927 (-2.047)**	2.907 (1.315)	-2.831 (-4.361)***	-0.986 (-1.693)*	-0.622 (-4.006)***	0.217 (32.366)***	OCFPS: 2.088 OCFPS*D: 2.198 D: 1.328 NDAPS: 2.236 DAPS: 2.828 NDAPS*D: 2.235 DAPS*D: 2.808 Loss: 1.173 Size: 1.231
Panel B: Price specification – OLS robust standard errors – Dechow et al. model – Pool														
5	5.255 (16.948)***	3.986 (3.464)***											0.123 (143.597)***	
5a	6.975 (3.167)***	4.126 (2.787)***									0.219 (0.205)	-0.138 (-0.805)	0.122 (48.136)***	EPS: 1.391 Loss: 1.413 Size: 1.111
6	3.719 (10.987)***		3.825 (7.125)***		-0.251 (-0.533)								0.172 (106.943)***	OCFPS: 1.008 TAPS: 1.008
6a	12.599 (5.875)***		4.054 (6.709)***		-0.269 (-0.576)						-1.491 (-2.472)**	-0.652 (-4.156)***	0.186 (59.059)***	OCFPS: 1.192 TAPS: 1.009 Loss: 1.119 Size: 1.212

	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	
7	3.625 (10.689)***			3.781 (7.301)***				-0.0616 (-0.128)		-2.749 (-1.773)*					0.182 (76.292)***	OCFPS: 1.027 NDAPS: 1.028 DAPS: 1.004
7a	12.689 (5.916)***			4.019 (6.942)***				-0.075 (-0.159)		-2.831 (-1.818)*			-1.486 (-2.464)**	-0.667 (-4.217)***	0.196 (50.509)***	OCFPS: 1.027 NDAPS: 1.027 DAPS: 1.005 Size: 1.213 Loss: 1.119
8	6.315 (11.631)***	3.208 (2.403)**	1.715 (0.7955)									-1.977 (-3.147)***			0.136 (54.226)***	EPS: 1.697 EPS*D: 1.688 D: 1.029
8a	7.474 (3.419)***	3.429 (2.227)**	1.815 (0.817)									-2.035 (-3.258)***	0.711 (0.725)	-0.106 (-0.645)	0.135 (32.885)***	EPS: 1.977 EPS*D: 1.712 D: 1.052 Loss:1.457 Size: 1.115
9	5.322 (9.449)***			3.061 (5.795)***	1.633 (1.522)	-1.091 (-1.250)	1.321 (1.298)					-3.138 (-4.595)***			0.196 (50.636)***	OCFPS: 2.104 OCFPS*D: 2.342 D: 1.263 TAPS: 2.272 TAPS*D: 2.260
9a	13.372 (5.979)***			3.348 (6.038)***	1.597 (1.497)	-1.084 (-1.259)	1.285 (1.275)					-2.939 (-4383)***	-0.987 (-1.696)*	-0.610 (-3.962)***	0.206 (38.776)***	OCFPS: 2.282 OCFPS*D: 2.346 D: 1.296 TAPS: 2.275 TAPS*D: 2.262 Loss:1.150 Size: 1.217
10	5.105 (9.452)***			3.091 (5.595)***	1.059 (1.032)			-0.762 (-0.878)	1.059 (1.489)	-4.791 (-1.987)**	4.004 (1.329)	-2.939 (-4.384)***			0.206 (38.680)***	OCFPS: 2.127 OCFPS*D: 2.387 D: 1.267 NDAPS: 2.089 DAPS: 2.289 NDAPS*D: 2.113 DAPS*D: 2.279

| 10a | 13.241 (5.949)*** | | | 3.382 (5.939)*** | 1.512 (1.471) | | | -0.755 (-0.885) | 1.031 (1.016) | -4.781 (-1.993)** | 3.831 (1.278) | -2.741 (-4.221)*** | -0.992 (-1.719)* | -0.617 (-3.941)*** | 0.216 (32.207)*** | OCFPS: 2.314 OCFPS*D: 2.392 D: 1.301 NDAPS: 2.097 DAPS: 2.292 NDAPS*D: 2.123 DAPS*D: 2.281 Loss: 1.151 Size: 1,221 |

	Wald(1)	Wald(2)	Wald(3)	Wald(4)	Wald(5)	Wald(6)	Wald(7)	Wald(8)	Wald(9)	Wald(10)	Wald(11)	Wald(12)			
6	29.798***	28.858***	-	-	-	-	-	-	-	-	-	-			
6a	28.198***	27.409***	-	-	-	-	-	-	-	-	-	-			
7	29.174***	28.653***	21.828***	13.708***	-	-	-	-	-	-	4.994**	3.082*			
7a	28.516***	28.513***	21.668***	13.810***	-	-	-	-	-	-	5.339**	3.223*			
8	3.173*	0.222	-	-	-	-	-	-	-	-	-	-			
8a	4.212**	0.242	-	-	-	-	-	-	-	-	-	-			
9	20.344***	20.687***	-	-	1.005	1.026	1.722	1.752	-	-	-	-			
9a	22.243***	22.716***	-	-	1.583	1.617	1.701	1.733	-	-	-	-			

10	24.454***	16.978***	13.494***	10.483***	1.130	1.178	1.390	1.001	3.097*	2.917*	3.454*	3.065*				
10a	25.565***	20.235***	13.851***	10.848***	1.831	1.878	1.385	0.993	2.939*	2.833*	3.446*	3.114*				
*,** and *** indicate statistical significance at the 10%. 5% and 1% level.																
(1)Wald's Test between 1 and 2 fixed effect estimator																
(2)Wald's Test between 1 and 2 pool data																
(3)Wald's Test between 1 and 3 fixed effect estimator																
(4)Wald's Test between 1 and 3 pool data																
(5)Wald's Test between 1 and 4 fixed effect estimator																
(6)Wald's Test between 1 and 4 pool data																
(7)Wald's Test between 2 and 5 fixed effect estimator																
(8)Wald's Test between 2 and 5pool data																
(9)Wald's Test between 3 and 6 fixed effect estimator																
(10)Wald's Test between 3 and 6pool data																
(11)Wald's Test between 2 and 3 fixed effect estimator																
(12)Wald's Test between 2 and 3 pool data																

Table 7 - The value relevance of earnings' components from Kothari et al. (2005) model

Model 5: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \varepsilon_{it}$									
Model 5a: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 Loss + \beta_3 Size + \varepsilon_{it}$									
Model 6: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \varepsilon_{it}$									
Model 6a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 Loss + \beta_4 Size + \varepsilon_{it}$									
Model 7: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \varepsilon_{it}$									
Model 7a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 Loss + \beta_5 Size + \varepsilon_{it}$									

Model 8: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}*D + \beta_3 D + \varepsilon_{it}$

Model 8a: $MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 EPS_{it}*D + \beta_3 D + \beta_4 Loss + \beta_5 Size + \varepsilon_{it}$

Model 9: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 D + \beta_4 OCFPS_{it}*D + \beta_5 TAPS_{it}*D + \varepsilon_{it}$

Model 9a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 TAPS_{it} + \beta_3 D + \beta_4 OCFPS_{it}*D + \beta_5 TAPS_{it}*D + \beta_6 Loss + \beta_7 Size + \varepsilon_{it}$

Model 10: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 OCFPS_{it}*D + \beta_5 DAPS_{it}*D + \beta_6 NDAPS_{it}*D + \beta_7 D + \varepsilon_{it}$

Model 10a: $MV_{it} = \beta_0 + \beta_1 OCFPS_{it} + \beta_2 DAPS_{it} + \beta_3 NDAPS_{it} + \beta_4 OCFPS_{it}*D + \beta_5 DAPS_{it}*D + \beta_6 NDAPS_{it}*D + \beta_7 D + \beta_8 Loss + \beta_9 Size + \varepsilon_{it}$

Panel A: Price specification – OLS robust standard errors – Kothari et al. model – Fixed effect

Model	Constant	EPS_{it}	$EPS_{it}*D$	$OCFPS_{it}$	$OCFPS_{it}*D$	$TAPS_{it}$	$TAPS_{it}*D$	$DAPS_{it}$	$DAPS_{it}*D$	$NDAPS_{it}$	$NDAPS_{it}*D$	D	Loss	Size	R^2 adj.	VIF
5	5.352 (12.950)***	4.687 (4.526)**													0.0800 (89.237)***	
5a	8.880 (3.812)***	5.566 (4.461)***										1.879 (1.761)*		-0.325 (-1.918)*	0.084 (32.339)**	EPS: 1.472 Loss: 1.467 Size: 1.123
6	4.057 (8.489)***			3.645 (6.458)***		-0.391 (-0.807)									-0.092 (52.424)***	OCFPS: 1.001 TAPS: 1.001
6a	13.548 (5.795)***			4.008 (6.622)***		-0.410 (-0.848)						-0.822 (-0.909)		-0.721 (-4.226)***	0.099 (29.046)***	OCFPS: 1.209 TAPS: 1.022 Loss: 1.133 Size: 1.219
7	4.009 (8.381)***			3.598 (6.542)***				-0.195 (-0.396)		-1.956 (-1.688)*					0.0946 (36.354)***	OCFPS: 1.012 NDAPS: 1.012 DAPS: 1.001
7a	13.604 (5.821)***			3.959 (6.778)***				-0.208 (-0.424)		-2.021 (-1.740)*		-0.859 (-0.951)		-0.728 (-4.266)***	0.102 (24.145)***	OCFPS: 1.223 NDAPS: 1.012 DAPS: 1.003 Size: 1.219 Loss: 1.133
8	5.838 (11.354)***	4.937 (4.473)***	-0.675 (-0.321)									-0.983 (-1.234)			0.080 (30.625)***	EPS: 2.018 EPS*D: 1.998 D: 1.050

8a	9.095 (3.944)***	5.830 (4.668)***	-0.656 (-0.309)									-0.656 (-0.309)	2.011 (1.928)*	-0.305 (-1.773)*	0.085 (20.000)***	EPS: 2.454 EPS*D: 2.005 D: 1.068 Loss:1.488 Size: 1.131
9	5.325 (9.438)***			3.064 (5.799)***	1.246 (1.089)	-1.103 (1-.251)	1.116 (1.077)					-2.477 (-2.586)***			0.099 (23.317)***	OCFPS: 1.849 OCFPS*D: 2.103 D: 1.283 TAPS: 2.396 TAPS*D: 2.391
9a	14.159 (5.971)***			3.454 (6.050)***	1.257 (1.119)	-1.094 (-1.257)	1.074 (1.044)					-2.366 (-2.670)***	-0.409 (-0.499)	-0.686 (-3.996)***	0.105 (18.123)***	OCFPS: 2.007 OCFPS*D: 2.122 D: 1.325 TAPS: 2.400 TAPS*D: 2.394 Loss:1.170 Size: 1.225
10	5.228 (9.546)***			3.023 (5.622)***	1.264 (1.130)			-0.836 (-0.972)	0.921 (0.882)	-3.571 (-1.976)**	3.053 (1.300)	-2.391 (-2.503)**			0.102 (17.457)***	OCFPS: 1.870 OCFPS*D: 2.124 D: 1.284 NDAPS: 1.912 DAPS: 2.540 NDAPS*D: 1.07 DAPS*D: 2.539
10a	14.093 (5.968)***			3.414 (6.029)***	1.271 (1.165)			-0.828 (-0.977)	0.890 (0.857)	-3.559 (-1.972)**	2.930 (1.248)	-2.281 (-2.594)***	-0.415 (-0.506)	-0.689 (-3.999)***	0.108 (14.736)***	OCFPS: 2.034 OCFPS*D: 2.143 D: 1.326 NDAPS: 1.917 DAPS: 2.544 NDAPS*D: 1.913 DAPS*D: 2.539 Loss: 1.170 Size: 1.228
Panel B: Price specification – OLS robust standard errors – Kothari et al. model – Pool																
5	5.046 (17.411)**	5.031 (5.094)***													0.157 (190.172)*	

	*															**	
5a	7.815 (3.677)***	5.648 (4.474)***												1.278 (1.456)	-0.250 (-1.602)		0.161 (66.002)***	EPS: 1.415 Loss: 1.433 Size: 1.114
6	3.702 (10.917)***			3.831 (7.095)***		-0.177 (-0.370)										0.172 (106.278)***	OCFPS: 1.000 TAPS: 1.000
6a	12.556 (5.824)***			4.064 (6.673)***		-0.198 (-0.415)							-1.469 (-2.422)**		-0.651 (-4.124)***	0.185 (58.695)***	OCFPS: 1.209 TAPS: 1.004 Loss: 1.136 Size: 1.216
7	3.641 (10.779)***			3.815 (7.216)***			0.193 (0.375)		-2.066 (-1.651)*							0.179 (74.707)***	OCFPS: 1.002 NDAPS: 1.017 DAPS: 1.015
7a	12.430 (5.849)***			4.042 (6.821)***			0.170 (0.334)		-2.073 (-1.662)*				-1.487 (-2.468)**		-0.645 (-4156)***	0.192 (49.271)***	OCFPS: 1.211 NDAPS: 1.017 DAPS: 1.018 Size: 1.216 Loss: 1.136
8	5.838 (11.354)***	4.937 (4.473)***	-0.064 (-0.031)										-1.526 (-2.530)**			0.162 (66.443)***	EPS: 2.289 EPS*D: 2.257 D: 1.050
8a	8.104 (3.795)***	5.590 (4.566)***	-0.047 (-0.023)										-1.595 (-2.633)***	1.491 (1.664)*	-0.214 (-1.414)	0.167 (41.591)***	EPS: 2.764 EPS*D: 2.273 D: 1.068 Loss:1.452 Size: 1.127
9	5.325 (9.438)***			3.064 (5.799)***	1.655 (1.530)	-1.103 (-1.251)	1.492 (1.457)						-3.180 (-4.658)***			0.197 (50.822)***	OCFPS: 1.904 OCFPS*D: 2.135 D: 1.275 TAPS: 2.741 TAPS*D: 2.729
9a	13.319 (5.908)***			3.352 (6.033)***	1.629 (1.514)	-1.091 (-1.254)	1.444 (1.424)						-2.988 (-4.457)***	-0.939 (-1.609)	-0.607 (-3.901)***	0.207 (38.856)***	OCFPS: 2.068 OCFPS*D: 2.153 D: 1.320 TAPS: 2.741 TAPS*D: 2.734

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
																Loss:1.175 Size: 1.222
10	5.253 (9.525)***			3.014 (5.602)***	1.723 (1.604)			-0.760 (-0.859)	1-552 (1.414)	-3.417 (-1.821)*	2.091 (0.824)	-3.165 (-4.654)***			0.205 (38.255)***	OCFPS: 1.920 OCFPS*D: 2.143 D: 1.277 NDAPS: 2.503 DAPS: 2.590 NDAPS*D: 2.517 DAPS*D: 2.615
10a	13.174 (5.936)***			3.297 (5.949)***	1.695 (1.593)			-0.752 (-0.864)	1.509 (1.391)	-3.371 (-1.809)*	2.012 (0.798)	-2.971 (-4.479)***	-0.958 (-1.659)*	-0.601 (-3.914)***	0.214 (31.747)***	OCFPS: 2.090 OCFPS*D: 2.160 D: 1.321 NDAPS: 2.509 DAPS: 2.592 NDAPS*D: 2.528 DAPS*D: 2.616 Loss: 1.175 Size: 1.225

	Wald(1)	Wald(2)	Wald(3)	Wald(4)	Wald(5)	Wald(6)	Wald(7)	Wald(8)	Wald(9)	Wald(10)	Wald(11)	Wald(12)			
6	28.353***	27.188***	-	-	-	-	-	-	-	-	-	-			
6a	28.554***	25.871***	-	-	-	-	-	-	-	-	-	-			
7	27.470***	23.596***	16.278***	16.049***	-	-	-	-	-	-	2.437	2.823*			
7a	28.432***	23.584***	17.381***	15.999***	-	-	-	-	-	-	2.566	2.817*			
8	3.898**	3.217*	-	-	-	-	-	-	-	-	-	-			

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
8a	5.137**	4.245**	-	-	-	-	-	-	-	-	-	-
9	20.344***	20.344***	-	-	1.539	0.989	1.445	1.992	-	-	-	-
9a	22.792***	22.250***	-	-	2.273	1.552	1.414	1.951	-	-	-	-
10	17.585***	15.774***	13.847***	12.276***	1.459	0.824	0.933	1.507	2.866*	1.787	2.998*	2.220
10a	21.151***	18.451***	14.684***	12.767***	2.249	1.357	0.913	1.482	2.759*	1.727	2.998*	2.183

*,** and *** indicate statistical significance at the 10%. 5% and 1% level.

(1)Wald's Test between 1 and 2 fixed effect estimator

(2)Wald's Test between 1 and 2 pool data

(3)Wald's Test between 1 and 3 fixed effect estimator

(4)Wald's Test between 1 and 3 pool data

(5)Wald's Test between 1 and 4 fixed effect estimator

(6)Wald's Test between 1 and 4 pool data

(7)Wald's Test between 2 and 5 fixed effect estimator

(8)Wald's Test between 2 and 5pool data

(9)Wald's Test between 3 and 6 fixed effect estimator

(10)Wald's Test between 3 and 6pool data

(11)Wald's Test between 2 and 3 fixed effect estimator

(12)Wald's Test between 2 and 3 pool data

End Notes

1. As of 30 April 2012, 234 shares were listed in the Milan Stock Exchange issued by 210 companies. In fact, 24 firms have listed ordinary shares and savings/privileged shares

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Comprehensive Income, an Historical Perspective. The Development of Proprietorship and Entity Theories, an International Approach

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Abstract

IASB considers that the concept of Comprehensive Income (C.I.) successfully answers financial statements users' needs. In June 2011, IASB and FASB separately issued convergent amendments on the presentation of O.C.I. The Boards also agreed two options to present items of O.C.I. This paper argues that the opportunity should now be taken to carry out further research in order to validate this new approach as being in accordance with existing accounting principles. The IASB and the FASB working jointly on comprehensive income has rekindled the heated twentieth century debate over proprietary versus entity theory. We examine that historic debate for the purpose of better understanding the current issues related to income determination. We suggest that as long as proprietary theory (Sprague, 1908, Hatfield, 1909, Canning, 1929) more recently residual equity theory (Sprouse, 1958) and contrast it with entity theory (Paton and Littleton, 1930. We argue that proprietary theory with its focus on measuring stockholder remains dominant. We then examine why we do not think that comprehensive income will not be adequate to meet users' needs in a global economy.
We then discuss the current IASB standard for measuring comprehensive income and discuss the advantage that entity theory affords in a global economy. We then examine the contemporary literature about "disclosure" (Beretta and Bozzolan, 2004; Hutton, 2004; Beattie and McInnes,

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2006) and "value relevance" (Biddle and Choi, 2006; Ernstberger, 2008; Barton et al., 2010). Our objective is to offer an alternative measure of C.I. based on economic income that will provide all users better information for decision making.

Keyword: comprehensive; fair-value; (un)realization, proprietorship and entity theory

JEL Classification: B15, B25, M41

I. Introduction

The globalization of markets and increasing international co-operation, as well as a worldwide interest in the possibility of harmonizing accounting systems, has focussed attention on the inherent difficulty of drawing up basic accounting principles. Note deletion in sentence, I just put it on track changesThe Financial Accounting Standards Board, FASB, and the International Accounting Standards Board, IASB, are therefore working - through joint projects - to realize a "Conceptual Framework Project", that will lead to an increase in knowledge and understandingof the principles of international accounting convergence.

This international harmonization aims to realize the concept of "Comprehensive Income", i.e. a new accounting framework close to the Financial Accounting Standards Board (FASB) concept, in which inside the (expanded) Income Statement there are also final assets adjustments, monetary exchange variations. However, the Balance Sheet still maintains the asset and liability view consistent with a proprietary (shareholder value) approach

On June 2011 IASB issued the definitive version of the Amendments, IAS 1 as illustrated in the IFR's Presentation of Items of Other Comprehensive Income, which became mandatory by (infra- annual) July 1, 2012. NO PARAGRAPH The main purpose of the IASB amendments is to improve the consistency and the expository clarity of the Other Comprehensive Income (O.C.I.) items, as well as to emphasize that they should have equal prominence with traditional income within a single Income Statement.

With the adoption of the Amendments (in particular by Italian Legislator with Gazzetta Ufficiale June 6, 2012 - UE Regulations), the research proposed in this paper would deepen an understanding of the Comprehensive Income Concept and the related new Framework of Income Statement. The debate over how to classify income is not new; it is a variant of the "clean" versus "dirty" surplus of the early twentieth century (Canning, 1929, Paton and Littleton, 1930) in the United States.

II. Background and Methodology

We read many national and international specialist journals and monographs that analysed past and future changes in accounting doctrine and practice. We did so in order to become familiar with the variety of opportunities presented by the promulgation of the revised international accounting standards

The methodology employed for this research is to review the existing literature in order to comprehend and to forecast the eventual accounting outcome. We conducted an historical analysis of the writings of propreiatry theorists including e.g. Cerboni, Rossi, De La Porte, Degrange and Besta, Schar, Hugli, Sprague, Hatfield) and entity theorists (e.g. Paton, Schmalenbach, Zappa), in a wide variety of countries. Given the FASB amd IASB seeming commitment to shareholder value, we primarily focus on the Anglo American arguments for each of these theories. We suggest that a European perspective might be more appropriate in the latter part of the paper based on our historical analysis.

III. Proprietorship and Entity Theories

In both the Continental and Anglo-Saxon approaches, a high degree of subjectivity still exists in the application of Fair Value statements. But, we note in our discussion of entity thory there that the "matching method" of income determination is equally, if not more subjective, than fair value accouting. We suggest that recognition of the inherent subjectivity of all income determination models is necessary if the FASB is to resolve the basic issues related to fair value income determination. (e.g. Cerboni, Rossi, De La Porte, Degrange and Besta, Schar, Hugli, Sprague, Hatfield) and Entity Theory (e.g. Paton, Schmalenbach, Zappa).

The conventional interpretation of Fair Value, as current income, is in accordance with the Italian Besta's Patrimonialistic accounting system (i.e. the logic of patrimonial change) in which the aim is to represent an increase or decrease in the value of assets.

In Besta's patrimonial system, Total Assets, "A" lead directly to an increase in the value of assets.

Property and the balance sheet liabilities "P", to a diminution in value. See the following formula:

Net Worth = $\sum A - \sum P$

According to Prof. G. Galassi (1980), the fundamental "proprietary" equation appears also to be the basis of Italian Besta's Patrimonial Theory.

Schär's formulation is also interesting:

Cash + Merchandise + Debtors = Creditors + Bill payable + Capital

In the United States, proprietary theory was an imaginitve response to ownership powed by separation of ownership and control. Horowitz (1992: 106) suggests that "by 1900, it was no longer to conceive of shareholders as constituting the corporation" but propretary theorists managed to keep owners at center stage (1). Charles Ezra Sprague (1907: ix), was considered a pioneer by his peers. He viewed accounting "as a branch of mathematical and classificatory science, the principles of accountancy may be determined by *a priori* reasoning, and do not depend on the customs and traditions that surround the art." (2). A simple change in the accounting equation from Assets = Liabilities to Asset = Liabilities + Proprietorship put the owner back on center stage. Sprague (1997: 20) is generally credited with getting widespread acceptance of the expanded equation although Hatfield (1909) provided a more sophisticated model (3).

Sprague's works are interesting because he outlined an an important correlation between accounting, mathematics and economics. He tookinto consideration the fundamental relationship between the accounts of double-entry bookkeeping, symbolized by Cronhelm's equation; as in the following formula:

Positive Properties – Negative Properties = Proprietor's Stock.

Canning (1929: 50-1), a University of Chicago economist, further developed the model by essential and distinguishing features of an each fundamental element of accounting. He wrote that by offering "constructive criticism" of accounting practices, he

hoped to guide accounting theorists. Canning's definitions foreshadowed those used in the latter quarter of the 20th century when the "shareholder value" (decision usefulness) model became preeminent. Canning's concept of an asset as a future service focused on asset/liability valuation and made income determination ressidual. Canning could be labelled the father of the Chicago school; Vatter (1940), Staubus (1958), Sorter (1960) and Beaver (1963) all advocated models that focus on measuring managerial effectiveness increasing stockholders' value.

Challenges to the Proprietary Orientation

William Paton's (1922) dissertation, ***Accounting Theory***, provided the outlines of entity theory. Paton (1922) 52) asked "shall the proprietary or the managerial point of view be adopted in stating the theory of accounts?" He rejected the idea that this is a "matter of tweedledum and tweedledee," suggesting that proprietary theory "has tended to shut the door to all discriminating analysis of the income statement (Paton (1922: 53). He argued that his theory followed practice as the equation Assets = Liabilities was "more rational than prevailing (proprietary) theory" (Paton, 1922: 54). He concluded, "in the case of the large corporation, where a distinct legal entity must be recognized, to label all the equities 'liabilities' is not as far-fetched a procedure as it has been thought to be (4). He advocated changing the accounting equation to Assets (Properties) = Equities to reflect the fact that managers had obligations to all suppliers of capital (creditor and owner) not to just the residual ownership interest. Once again, he called upon practice to justify this change (5). He teamed with A. C. Littleton to develop a classic monograph that outlined entity theory in 1940.

Entity Theory

Paton and Littleton's (1940) monograph is generally credited with development of entity theory that switched accountants' focus from the balance sheet to the income statement and led to widespread acceptance of the historic cost allocation model (6). Their call to focus on revenue and expense measurement had been foreshadowed by the report of and American Accounting Association (AAA) committee, "A Tentative Statement of Accounting Principles Affecting Corporate Reports" in 1936. Paton and Littleton were

influential members of the committee whose report focused on (1) cost and values (2) measurement of income and (3) capital and surplus (7). The report concluded that "accounting is not essetially a process of valuation, but the allocation of historic cost and revenues to the current and succeeding fiscal periods."(AAA, 1936, 188).

Paton and Lttleton (1940) were not modest in their claims for entity theory; they suggested that their model would enable absentee owners" to assess managerial performance," it would provide "an objective measure of earning power" and it would aid the flow of capital into capable hands and away from unneeded industries" (Paton and Littleton, 1940:3). Their claim that management should not favoring one corporate one interest at the expense of others was rejected by the profession (8). Corporation reports, they wrote, had taken on a public character as they have "become the basic data for the investor, the employee, the consumer and the government. But, after this broad plea, they narrowed their focus primarily to the suppliers of capital (investors and creditors. Their contention that interest, taxes and dividends should all bear the same relationships from an entity perspective, either all were reported as expenses or all as distributions of income, proved totally unacceptable (Paton and Littleton, 1940: 43-4). In short, accountants never accepted the deprivileging of stockholders, inherent in entity theory.

Paton and Littleton (1940) created au aura of objectivity by use of brilliant rhetoric. Assumptions, like "costs attach", made costs akin to barnacles adhering to a ship, depicted "matching" of revenue and expenses as a relatively simple task (9). Costs measure efforts, revenues accomplishments and the net reflects managerial effectiveness" (Paton and Littleton, 1940: 15-6). Their model, with other assumptions, such as verifiable, objective evidence, created an aura of certitude. But, no thetorical strategy has been more effective than the concept of "matching" which implies a 1:1 association and masks the inherent subjectivity of the cost allocation process (10). They claimed the resultant income provides an income measure that would facilitate allocation of capital in a socially beneficial way. Unlike Canning and other proprietray theorists, Paton and Littleton focused on measuring revenues and expenses of a period; thus they defined an asset as an "unamortized cost" or "revenue charge in suspense". The balance sheet became the residual of the income determination process. By 1964, the model led to a host of dangling debits in financial reports. (11) Sterling (1967: 96) reflected the frustration that many theorist felt with the unquestioned acceptance of claims of objectivity implied in the matching model, writing that that except for some theologies, I know of no discipline

other than accounting which induces what ought to be from what is" (12).

Entity Theory attempted to change the orientation of accounting from the focus on ownerships interest to a focus on all corporate constituents. The corporate becomes an autonomous institution, able to manage on its own. In the modern corporate framework. Owners no longer have the key role as in a "patrimonial" enterprise, but represent only an important class among all the other stakeholders. The debate between proprietary and entity theorists became extremely heated and one aspect of the debate, realized versus unrealized income continues in the cuurent comprehensive income debate. The dualism between relative *realized* (Net Income) and *unrealized* (O.C.I.) earnings components emphasizes the "dual role" of financial reporting. On the one hand investors receive relevant financial information about Fair Value of foreign subsidiaries and financial instruments, and as a result they can readily determine the nature and the amounts of related unrealized gains and losses. On the other hand, management performance evaluation can exclude these items whenever compensation committees use only core earnings or net income as a more reliable or objective measure of the managers' performance (13). The issues related to income determination, inherent in the proprietary and entity debate, clearly have not been resolved. We now examine the regulatory process to highlight the continuity of that early debate.

IV. Regulatory process

In 1997 the Financial Accounting Standards Board issued the Statement of Financial Accounting Standard N. 130 (SFAS, 130), reporting Comprehensive Income. In 1993/4, those drawing up the standards in Anglo-Saxon G4 countries (US, UK, Canada, Australia) began joint discussions with an IASC representative, focussing on their existing onceptual frameworks. On October 2002, the IASB and the FASB signed the "Norwalk Agreement" to formalize their commitment to the convergence of US GAAP, Generally Accepted Accounting Principles, and IAS, International accounting standards. In September 2010, the IASB replaced the existing Framework with the Conceptual Framework for Financial Reporting. Comprehensive income was defined in the FASB Concepts Statement N. 6, "Elements of financial statements", (FASB, 1985 and later approved by IASB), as:

> *the change in equity of a business enterprise during a (given) period (brought*

about by) transactions and other events and circumstances, except those resulting from investments by and distributions to owners (of an enterprise).

As a result, Comprehensive Income would now include such other "unrealized" items (compared to the Income Statement) that were part of Owners' equity under previous FASB pronouncements, i.e. SFAS 130. More exactly:

- adjustments to unrealized gains and losses on available-for-sale marketable securities (SFAS, 115);
- foreign currency translation adjustments (SFAS, 52);
- minimum required pension liability adjustments (SFAF, 87);
- changes in market values of certain future contracts as hedges (SFAS, 80).

Other Comprehensive Income issues could be presented either along with the Income Statement (favoured) or in a separate statement of changes in shareholders' equity. In all cases, Comprehensive Income is shown as the sum of Net income and O.C.I., as the following items (ignoring income taxes) (14).

core earnings
+/- unusual and non-recurring items
+/- income from continuing operations
+/- extraordinary items
Net income
+/- Other Comprehensive Income
Comprehensive Income

The main decision of the IASB in revising IAS 1 was to aggregate information in the financial statements on the basis of shared features. IASB decided that owner changes in equity should be presented in the "statement of changes in equity", and separately from non-owner changes in equity. These variations are not classified as gain or loss in subsequent fiscal periods, but directly as the counterpart of an Equity Reserve. Variations in the Revaluation surplus could be transferred as "Retained earnings" in subsequent balance sheets, if in the interim the asset is either utilized or eliminated in accounting terms (compare IAS 1, paragraph 96).

With the 2007 amendments of IAS 1, entering into force on January 1, 2009, the IASB established a new income framework named Statement of Comprehensive Income

that also included unrealized earnings and expenses at the end of fiscal period. Thismainly concerned the appreciation process of the Patrimonial items (to compare IAS 1, paragraph 7, Definitions and paragraphs 81-83 and following, Statement of comprehensive income). The Statement represents unrealized profit arising from changes in Equity (included reclassification adjustments), which are connected to the going concern. Total Comprehensive Income specifies all the components of "profit or loss" previously presented as "other comprehensive income".

The central reason for the introduction of the new income framework is to be found in a growing demand by stakeholders for disclosure of the current value of capital assets. The current fair value reflects a distinctive peculiarity of the ownership or stockholder focus and a proprietary perspective with respect to valuation of non equity items (15). To achieve their objectives, the new framework had to accept the accountability of unrealized gains, which requires presenting an increasing numbers of items on an accrual basis.

In its last review of July 2011, the IASB also considered FASB Statement No. 130. Reporting Comprehensive Income (SFAS 130) issued in 1997. In fact, the requirements in IAS 1 concerning presentation of the Statement of comprehensive income are paralleled by those in SFAS 130. Paragraph BC106 of the Basis for Conclusions (16) however illustrates some differences.

The adoption of 2011 Amendments of IAS 1 by Italian Legislator was reported through the gazette of the Law 146, June 6, 2012 - UE Regulations 475/2012 of European Commission of June 5, 2012.

The amendments did not address which items are presented in O.C.I (17). The main change resulting from them was a requirement for entities to aggregate items on the basis of whether they are potentially classifiable to gain or loss (reclassification adjustments).

The amendments did not change the option to present items of O.C.I. either before tax or net of tax. However, if the items were presented before tax, then the tax relating to each of the two groups of O.C.I. items (i.e. those that might be reclassified as gain or loss and those that will not be reclassified) must be shown separately.

The framework of Total Comprehensive Income is presented in the following sections:

a. Profit or loss;

b. Other comprehensive income;

c. Comprehensive income for the period, being the total of profit or loss and O.C.I.

In addition to the profit or loss and O.C.I. sections, an Entity must present the following items, as allocation of profit or loss and O.C.I. for the period:

a. Profit or loss for the period attributable to:

- non-controlling interests;
- owners of the parent.

b. Comprehensive income for the period attributable to:

- non-controlling interests;
- owners of the parent.

If an enterprise presents profit or loss in a separate statement it must be in the form of a. above.

In conclusion, a complete set of financial statement should comprise *a*:

1. statement of financial position as at the end of the period;

2. statement of profit or loss and O.C.I. for the period;

3. statement of changes in equity for the period;

4. statement of cash flows for the period;

5. notes, comprising a summary of significant accounting policies and other explanatory information;

6. comparative information in respect of the preceding period;

7. statement of financial position as at the beginning of the earliest comparative preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

V. Fair Value, Economic Value and Postulate of Realization

The new income framework presents all the earnings and expenses recorded in the relevant fiscal period, regardless of whether or not the connected operations are concluded, - as realized and unrealized items. One can readily observe that, on the basis of this accounting interpretation, the new income framework is moving towards an extended income concept, and, therefore, to toward interpretation of Fair Value as Current Value.

Nevertheless, following the comprehensive interpretation, if the income of the financial year does not coincide with the change in Net Worth, a turning point has been reached in traditional Italian accounting doctrine and practice (e.g. Zappa). The Italian Economia Aziendale indeed concludes that for any given period as a going concern, income and equity are no longer considered as autonomous items, but are themselves connected.

The new comprehensive approach favours the stakeholders (first of all the shareholders), who want to understand the accounting effects arising from changes in the market prices of firms' financial assets, however the debate continues over non financial assets. From a propietry perspective value to a shareholder in not the purchase price of investory but its resale price, but recognition of the unrealized gain in income continues to be controversial.

One of the aims of the scope of the research proposed in this paper is the question of why the possibility of change in the economic income of the entity has not yet been considered (18)? He extended income concept should include all the Intangible assets, which are not considered in the financial statements; including Economic Income. For instance, "Fair" value, which is synonymous with "Equitable" value, is not always captured by market prices. Most mainstream accounting practice considers Fair Value as current value, but this is no more than a generally accepted conventional approach (19). The justification for this is that the "objective" evidence of market prices (or replacement costs), can be used to consider realized "relative" capital gain and loss.

Moreover in many circumstances (20) Standard Setters have concluded that it is impossible to extend "Fair Value" criteria to all balance sheets items, which at present favours prudential cost criteria (21).

The academic discussion of international accounting doctrine (Cheng et al., 1993; Dhaliwal, Subramanyam and Trezevant, 1999; Newberry, 2003; Kothari, Leone and Wasley, 2005; Biddle and Choi, 2006; Ernstberger, 2008; Barton et al., 2010, and so on) is in fact a debate about which of the two income approaches – Net Income or Comprehensive Income – is more relevant to financial stakeholders. This discussion is correlated to another dualism concerning the relevance of "Historical Cost" rather than "Fair Value" (with a current interpretation), as the conventional evaluation criteria of Patrimonial issues. However, this debate in the United States does not parallel the European debate in that the FASB has required "fair value" have some objective basis,

i.e., backed by a market price. This is interpreted by market focused U. S. acadmics as "exit values" but they argue that "it is not clear that fair value as exit value enhances or frustrates equity valuations (See Nissan and Penman, 2008).

Is mentioned above, a market price often does not exist, is not easily traced or can be estimated only if it is referred to the future value of realization. Market price is also exposed to continuous oscillations, a critical point if it is to be used in realized income appreciation.

Realized income itself needs a major stabilization. It cannot perfectly represent the income capacity of a given period, because it considers past events rather than future prospects. Fair Value should therefore be estimated through the discounting back of future incomes. The configuration of Economic Income rejects static cost evaluation, because income is a continuous flow as long as the Entity is a going concern. Furthermore book value (or historical value) is also not immune from estimations and conjectures (e.g. assets amortization).

In other words, the determination of Economic Income requires changes in book value, based on other logical criteria.

Economic Value differs from Market Value, understood as realizable value, because the latter represents the evaluation of a sole operator rather than of several of them (i.e. the market), and this is the reason why it is considered more coherent.

The difference between the realizable value (interpreted as market value) and economic value is the value of Goodwill for any financial period under consideration.

The difference arises from the obvious limitation of Net Income, as the synthesis of any financial statement, owing to the absence of a distinction between core income and realized capital gain for cost savings.

The paper would emphasize the opinion following which the Comprehensive Income is to relatively prefer as completeness, rather than the reliability. The proposed programme of research will examine whether comprehensive income is to be preferred as presenting a more comprehensive or complete overview even through it is certainty open to the criticism that it is less reliable. In other words:

Completeness *versus* Reliability (inverse correlation)

The proposed research would clarify how many income configurations (22) are possible, including such concepts as *realized, realizable, current, economic*, each of them with considerable repercussions on the capacity of financial statements to provide useful

information to stakeholders.

The logical link between these income configurations is to be found in the belief that defined income will be "realized". We would, however, stress that realizable and economic income should be considered only as estimates of what realized income is likely to be; but over the whole life of a firm these different income configurations will lead to the same calculation of Final Income (or total income).

Although we argue that the International accounting standards board (IASB) might consider the configurations of realized and current income as alternatives, they are different concepts.

This can be explained by the different economic and cultural approach to be found in the history of Continental Europe (e.g. Italy, Germany, France) on the one hand and of Anglo-Saxon countries (e.g. United States, United Kingdom, Australia) on the other.

Until recently, the main characteristic of Continental Europe was that enterprises obtained their funding from several sources/banks. The accounting aim was mainly to avoid assigning unrealised gains exclusively to preserve the stockholders or creditors. The Anglo-Saxon area was instead characterized by Medium/Large Companies quoted on the official Stock Exchange. The accounting purpose was to provide a "comprehensive" assessment of market value to Shareholders (See the correlation with Entity and Proprietorship Theories, illustrated in the next paragraph). Any harmonisation of the Continental Europe and Anglo-Saxon accounting approaches should eventually lead to an agreed paradigm with in turn generally accepted standards.

VI. Disclosure, Value Relevance and a Compromise

An important question which our research will consider is whether the reporting of Comprehensive Income as discussed above is a useful decision making tool for investors. Much of the information provided by the O.C.I. components would already have been available to the market from other sources, such as the supplementary information given in financial statement notes.

It is interesting to note that the Comprehensive approach to reporting has the potential to relieve a fundamental problem of financial accounting theory. The interests of managers and investors can be reconciled if Net Income is calculated so as to maximize

the correlation between management effort and overall performance, with O.C.I. picking up the other relevant gains and losses that are more or less directly related to effort.

SFAS 130 has ignored any mention of the role of Net Income in motivating managerial performance. Nevertheless, this role seems implicit. Paragraph 66 states that O.I.C. is not a measure of financial performance, implying that Net Income is. This interpretation is reinforced by the fact that SFAS 130 allowed O.C.I. to be included in a Statement of changes in shareholders' equity, that is, separate from the Income Statement.

Nevertheless, it seems that the standard in effect represented a diplomatic compromise between investors' and managers' interests in financial reporting. Investors benefit from the decision-making usefulness of Fair Value accounting; managers seem willing to accept Fair Value accounting provided that resulting unrealized gains and losses are excluded from Net Income. Indeed, this compromise aims to exclude from Net Income *unrealized* gains and losses over which management has relatively little control and which are uninformative about manager effort.

Capital gain (or loss) in fact depends on exogenous events, the conjunction of which is mainly independent from managers' achievements or their oversights (Zappa, 1950, p. 302).

VII. Conclusion

In 1959, the AICPA and academics decided that they needed some sort of general theory, (a constitution) to provide the basis for setting standards in place of the *ad hoc* approach used up to then. When the Accounting Principles Board was formed, proff. Sprouse and Moonitz were asked to prepare a constitution, and *Accounting Research Study 3*, "A Tentative Set of Broad Accounting Principles for Business Enterprises" was produced. The project was viewed as too radical, however, and was never completed.

By 1972, pressure built up again for a better approach. The AICPA formed two committees. One named the Trueblood Committee (Touche, Ross & Co) which produced the Objective of Financial Statements; and the other, named the Wheat Committee (SEC) was to determine how accounting standards should be established. FASB was the result of its report "Establishing Financial Accounting Standards".

In 1976, FASB issued a revolutionary document, the *Discussion Memorandum on the Conceptual Framework for Accounting.* It proposed turning the accounting world

upside down by replacing the Income Statement and the "matching concept" which had been the primary focus of financial reporting since Paton & Littleton's monograph in 1940. In 1984 FASB changed their focus to the Balance Sheet.

The basis for this proposal was the Trueblood Report's reference to the possibility of an Economic concept of Income. The report stated "Accounting measurements of earnings (income) should recognize the notion of economic better-offenses, but should be directed specifically to the enterprise's success in using cash to generate maximum cash".

Hendrickson (1977) pointed out there is a contradiction in this goal, because, "The former goal is the concept of capital maintenance (and income smoothing) and the latter goal is another form of the profit maximization concept or measurement of efficiency. Because measuring capital maintenance is difficult, if not impossible, the pragmatic accountant focuses on profit maximization."

The present research proposal would consider the criteria for a successful standard against as wide as possible a background, in order to examine in more depth the global debates concerning a "high quality standard" (Knutson and Napolitano, 1998).

The differences amid the historical proprietorship and entity perspectives on accounting are central to better understand the recent history of the international accounting standard developments and generally to discussions of accounting theory and practice.

Accounting standard setters can now be guided by the desirability of decision-making usefulness and the reduction of information asymmetry. In particular:

1.   *decision usefulness*: the theory of rational investor decision-making can be used to predict decision usefulness;

2.   *reduction of information asymmetry*: standard setters should use reduction of information asymmetry in capital and managerial labour markets as in itself a criterion for new standards. Standard setters should also be aware of the informativeness of market price as a conveyor of financial information;

3.   *economic consequences of new standards* (Zeff, 1978, pp. 260, ss): the costs carrying out the work of setting a new standard will be imposed on firms and managers.

These criteria are not the only ones relevant to successful standard setting. The legitimate interests of management and other constituencies also need to be considered, as does careful attention to due process.

Finally, our proposed research will consider the generally and conventionally accepted interpretation of the realization postulate, since income is an on-going flow, which can not be related to single moments or fiscal periods (23).

The above-mentioned accounting convention was based also on a fiscal reason, in particular the determination of a prudential income to avoid the allocation of unrealized wealth.

It is interesting that the presentation of the O.C.I. Statement recognises that asset values can be changed, by fluctuations in the trading currency, as well as by variations in market prices. Those "realizable" items could, with the passing of time, become realized as "capital gain or loss" or as "cost saving".

The concept of realization, which connotes wealth, also concerns estimating values. But the inclusion of any objectively quantifiable change of value, even if unrealized, as O.C.I. components, expresses also the concept of "economic income".

Bearing this focus in mind it is remarkable that in the FASB accounting model proposed in the Statement n. 33 of 1979 (24), Net Worth is separately represented as the increasing market price of stocks and other assets, thus differentiating realized and unrealized capital gain (or loss) on non- monetary assets, included cost saving, from the gain (and loss) due to the decreasing buying power of Debts, therefore taking account of monetary trends. This model allows enterprises to draw up disclosure reports, in order to satisfy the needs of financial statement users, which focus on the understanding, and interpretation, of Income and Total Comprehensive Income. This paper, with an historical perspective, would be up in that direction.

End notes

1. This was a continuation of late nineteenth century claims when accounting theorists emphasized the infallibility of accounting. See, for example, Geer (1883: 17), who wrote that.

2. Gaffikin (1987: 19) when evaluating accounting methodology concludes that Sprague's (1908) work did not reflect developed theory, he suggests its significance was the recognition of the need for a more long term intellectual development. I concur; Paton (1922), Scott (1931), Littleton (1933) all cited Sprague's work as critical to development of theory. Hatfield (1908: 67-9) in an early review, disagreed, he found the work lacked

clarity and did not fulfill its promises.

3. Paton (1922: 51) felt the Hatfield (1909) elevated proprietorship to an even "more important position" by use a two term equation Goods = Proprietorship, with goods being positive goods (assets) - negative goods (liabilities) = proprietorship

4. Paton included these comments in a footnote not in the text

5. See Couchman (1918) for this idea; Paton again referred to practice in a footnote as presenting the view.

6. We have not attempted a complete historical analysis of the evolution of entity theory; Goldberg (1969: 110, 112) credits Harold D. Greeley's *Theory of Accounts* (1920), but he appears to use the entity convention and entity theory as synonyms. WeI focus on Paton and Littleton's work because of its widespread use in the United States

7. Comments on the report indicated that "measurement of income" was a complete misnomer since the report discussed classificatory not measurement criteria for the income statement (See Scott, 1937, Rorem (1937) and Husband (1937)

8. An American Institute of Accountants (1941) committee reviewed the monograph and strongly rejected the notions that managers should not favor shareholders; they found the idea that interest should be treated as dividends, a distribution of earning, particularly objectionable. But, they did approve of the cost orientation

9. Paton and Littleton (1940: 13) argued that costs "can be marshaled into new groups that posses real significance" as if cost had a power of cohesion"

10. Littleton (1953: 352) "the central purpose of accounting is to make possible the periodic matching of costs (efforts) and revenues (accomplishments); he viewed this as the "nucleus" of accounting. See Thomas's (1969) monograph for a scathing rejection the claims made for the matching model.

11. Accounting Principles Board Concept Statement #4 defined an asset as Economic resources of an enterprise that are recognized in conformity with generally accepted accounting principles. Assets also include certain deferred charges that are not resources but that are recognized and measured inaccord with generally accept accounting principles (APB #4, 1964, paragraph 32).

12. Paton and Littleton (1940) recognized that the matching model could be easily manipulated so they recommended that one accounting method, such as straight line depreciation or FIFO, be required for all companies. This also was soundly rejected, the great virtue of the matching model was its flexibility to determine when an item

contributed to revenue, if if did not it remained on the balance sheet as an asset.

13. As seen by AICPA, 1994; FASB, 2001; Beattie and Pratt, 2002; Di Pietra, 2002; Zambon 2002; Beattie, McInnes and Fearnley, 2004; Beretta and Bozzolan, 2004; Hutton, 2004; Beattie and McInnes, 2006; Andrei, 2006; Teodori, 006; Quagli, 2006; Allegrini, 2007; and so on, "disclosure" can be consider crucial in order to improve the quality of financial statements.

14. The "clean" versus "dirty" surplus debate in the 1930s foreshadowed many of the issues in the current debate. Nissley (1939) noted companies far preferred a private burial in stockholders' equity versus a public funeral on the income statement.

15. Nissan and Penman (2008: 6-7) argue the IASB and FASB conceptual frameworks adopt an entity rather than proprietary perspective. They suggest perspective may not matter but write it is important with respect to fair value because only the proprietary perspective requires a strict division between the shareholders' claims and those of others. We believe that the IASB and FASB accepted the entity concept not entity theory. The concept is accepted by most theorists, including proprietary theorists. The confusion between the entity concept and entity theory is prevalent throughout much of the contemporary accounting literature. (See Merino, 2012).

16. The Basis for Conclusions accompanies, but is not part of IAS 1; comparing with the revision of IAS 1 in 2003 and its amendment in 2005, the paragraphs have been renumbered and reorganized as necessary to reflect the new structure of the Standard.

17. The amendments which could be deserved, beyond those in the core text, are the followings: *(Paragraph 85)*. The administration must represent additional issues, headings and partial results in the two statements.

(Income statement and other comprehensive income statement) to improve the understanding of the economic and financial outcomes of the firm (paragraph 90). The entity must indicate the tax amount regarding each other comprehensive income issues, included the reclassification adjustments, inside the whole income statement or in the attached notes.

18. Initially FASB did not consider comprehensive income a performance index (See Paragraph 66, SFAS 130), but just an informative element and so, the acceptance of economic values could produce more discretion in the financial

statement but also a major clearness of the firm reality.

19. The debte about fair value has just started; the debates of the 1960s and 1970s with respect to measurement are being revisited.

20. To deepen see IAS 36, Impairment (comparative parameter to cost model), IAS 16, Property plant and Equipment and IAS 38, Intangibles assets, (allowed criteria but not for goodwill); IAS 40, Investment Property (optional criteria); IAS 39, Financial instruments and IAS 41, Agriculture (mandatory criteria).

21. The IAS/IFRS financial statement maintains a link to the cost model, but one assists the global climb to fair value model as current orientation. The IFRS 9 Financial Instruments (replacement of IAS 39 - paragraph 9) stated the criteria of Fair Value as "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction". During the Amendments of the IAS 39 the International Accounting Standard Board introduced in the Exposure Draft n. 2009/5 a new definition of Fair Value similar to the concept of Exit Value (U.S. GAAP concept), that is "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (See IFRS 2, Appendix A).

22. To deepen compare Galassi (1980 and 1987) and Barker (2010). The prudence principle is the deciding factor between the income configurations, which needs arbitrariness in the allocation of earnings and costs. Nevertheless the decisions of prudence are subsequent the choices of objectivity (and timing discrepancy) in the accrual basis:

   – accounting profit (or book income);
   – realizable profit and the opportunity cost as evaluation basis, that is the
      realizable price with the immediate exchange;
      business profit, economic prospective.

23. The Net Income never can be defined absolutely "realized", since the inclusion of estimated and conjectured items, even if the entire collect of earnings (Compare Italian Authors as Azzini (1957), pp. 49, ss; Masini (1955), pp. 80, ss and Zappa (1957), pp. 895, ss).

24. The information required by the Statement is to be presented as supplementary information in published annual reports to represent:

      - income from continuing operations adjusted for the effects of general inflation;

- the purchasing power gain or loss on net monetary items;

- income from continuing operations on a current cost basis;

- the current cost amounts of inventory and property, plant, and equipment at the end of the fiscal year;

- increases or decreases in current cost amounts of inventory and property, plant, and equipment, net of inflation. Enterprises are required to present a five-year summary of selected financial data, including information on income, sales and other operating revenues, net assets, dividends per common share, and market price per share. In the computation of net assets, only inventory and property, plant, and equipment need be adjusted for the effects of changing prices. The enterprise needs to measure the "effects" of changing prices on inventory, property, plant, and equipment, cost of goods sold, and depreciation, depletion, and amortization expense. No adjustments are required to other revenues, expenses, gains, and losses. This Statement called for two supplementary income computations, one dealing with the effects of general inflation, the other dealing with the effects of changes in the prices of resources used by the enterprise. The Board believed that both types of information are likely to be useful. By Summary of Statement No. 33 - Financial Reporting and Changing Prices (Issued 9/79).

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Comparative Study on Assessing the Performance of Economic Entities in Mehedinti County

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Abstract

The notion of performance normally associated with it other three notions, namely efficiency, economy and effectiveness. Involves either maximizing efficiency results obtained with a given amount of resources or minimizing resources to achieve a predetermined result, being in all cases a report, a comparison of effectiveness (outcome) and effective effort (expense) to obtain the result by a or process. Economics aims at training resources at minimum cost. Effectiveness is the quality of process to produce the desired results and that acts as a control criterion level and the achievement of objectives.

Keyword: competition, productivity, profitability, return on equity.

JEL Classification: D04, J24

I. Introduction

Financial performance was defined by Professor Mihai Ristea, as the three E's equation, the equation is as follows:

$$\text{Performance} = \text{Efficiency} + \text{Economics} + \text{Effectiveness}$$

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From the point of view of the management team there is an interest in assessing and analyzing financial performance as it aims to increase operational efficiency and profitability while aiming to evaluate the effectiveness of the entity's resources have been used. (Huselid, 1995)

From the perspective of investors and shareholders on performance analysis seeks primarily capital cost and at the same time how managers lead the organization's work and how they respond to shareholders is very important for managers to acquire the viewpoint of shareholders expectations them in terms of financial performance of the company. (Eisenberg, 1969)

It is helpful to follow the most important indicators of efficiency which we divided into three categories:
- productivity indicators;
- profitability indicators.

For a comparison of performance indicators were considered the results achieved in 2011 by four companies Mehedinti County, in various industries, such as:

- S.C. EURO TYRES MANUFACTURING S.R.L., Drobeta Turnu Severin – industry giant tire manufacturer;
- S.C. ŞANTIERUL NAVAL ORŞOVA S.A. – engineering industry;
- S.A. HIDROSERV PORŢILE DE FIER S.A., Drobeta Turnu Severin – maintenance services;
- S.C. MERIDIAN C.C. S.R.L., Orşova – wholesale and retail.

II. Productivity indicators

Productivity indicators reflect the human resource intensive and can cause the relationship between performance and consumption of resources, such as:

- Total income per employee (I/e), reflecting the contribution made by each employee to develop and maintain the company's business in the competitive environment.

Relationship calculation is:

$$\text{Income / employee (I/e)} =$$

Total income / Nomber of employees (1)

Table 1 Situation total income per employees in 2011

No.	Trader	Total income	No. employees	I/e
1.	Euro Tyres	235.102.369	616	381.659
2.	Hidroserv	95.462.621	582	164.025
3.	Şantierul Naval Orşova	62.245.018	430	144.755
4.	Meridian	96.059.798	91	1.055.602

Source: www.mfinante.ro – processed date

• Value added per employee (Va / e), reflecting its effort developed by each employee for business.

Relationship calculation is:

Value added (Va/e) =
Value added / Nomber of employees (2)

Table 2 Situation value added per employees in 2011

No.	Trader	Value added	No. employees	Va/e
1.	Euro Tyres	51.279.116	616	83.245
2.	Hidroserv	33.110.446	582	56.890
3.	Şantierul Naval Orşova	33.989.820	430	79.046
4.	Meridian	4.090.009	91	44.945

Source: www.mfinante.ro – processed date

The results must be assessed according to the activity profile, so Meridian Trading Company with activities wholesale and retail trade has the highest revenue per employee productivity and lowest value added per employee.

III. Profitability indicators

Profitability indicators reflecting efficiency activity, correlating with effects sizes effortlessly profit nature of expenditure and revenue nature.

For SC EURO TYRES MANUFACTURING SRL were determined as indicators of profitability and return in 2011, this unit losses:

- High profitability shows net profit income when obtaining total income of 1,000 USD. Size ratio depends primarily on the ratio between revenues and expenditures of the entity and, secondly, the structure of revenues and costs of economic activity.

Profitability rate income =
Net profit/Total income x 1000 (3)

Table 3 Profitability income situation in 2011

No.	Trader	Total income	Net profit	Pri ‰
1.	Euro Tyres	235.102.369	-	-
2.	Hidroserv	95.462.621	321.766	3,37
3.	Şantierul Naval Orşova	62.245.018	380.016	6,10
4.	Meridian	96.059.798	92.323	0,96

Source: www.mfinante.ro – processed date

- High profitability reflects expenses the result of optimizing flows of assets to the volume and structure of funds raised, the rate being much higher as the income unit is obtained with a minimum of expense.

Profitability rate expenses =
Net profit / Total expenses x 1000 (4)

Table 4 Profitability expenses situation in 2011

No.	Trader	Total expenses	Net profit	Pre ‰
1.	Euro Tyres	321.462.850	-	-

2.	Hidroserv	94.492.421	321.766	3,4
3.	Șantierul Naval Orşova	61.865.002	380.016	6,1
4.	Meridian	92.923.241	92.323	1,0

Source: www.mfinante.ro – processed date

Profitability indicators reflecting efficiency activity, correlating with effects sizes effortlessly profit nature of nature resources used.

- Return on equity (ROE) measures the effectiveness of the entity's own funds and provides information, including shareholders on how these funds were used.

Relationship calculation is:

$$ROE = Net\ Profit\ /\ Equity \times 100\ (5)$$

Table 5 Statement of financial return in 2011

No.	Trader	Equity	Net profit	ROE %
1.	Euro Tyres	270.218.838	-	-
2.	Hidroserv	13.606.809	321.766	2,36
3.	Șantierul Naval Orşova	88.410.039	380.016	1,13
4.	Meridian	11.756.608	92.323	0,79

Source: www.mfinante.ro – processed date

- Return on assets (ROA) measures the total asset performance regardless of the mode of acquisition of capital (own and borrowed) allocated for the establishment of this asset.

Relationship calculation is:

$$ROA = Net\ Profit\ /$$
$$Total\ assets\ at\ net\ value \times 100\ (6)$$

Table 6 Economic profitability situation in 2011

No.	Trader	Total assets	Net profit	ROA %
1.	Euro Tyres	466.114.268	-	-
2.	Hidroserv	34.351.649	321.766	0,94
3.	Şantierul Naval Orşova	96.507.307	380.016	0,39
4.	Meridian	47.974.853	92.323	0,19

Source: www.mfinante.ro – processed date

IV. Other indicators of economic efficiency expression

Economic entities may use a number of indicators expressing economic efficiency, the most commonly used are:

- Leverage ratio (equity multiplier) measures the degree to which the attraction and use of new resources lead to increased capital efficiency.

Relationship calculation is:

Lr = Total assets / Equity (7)

Table 7 Leverage ratio in 2011

No.	Trader	Total assets	Equity	Lr %
1.	Euro Tyres	466.114.268	270.218.838	1,72
2.	Hidroserv	34.351.649	13.606.809	2,52
3.	Şantierul Naval Orşova	96.507.307	88.410.039	1,09
4.	Meridian	47.974.853	11.756.608	4,08

Source: www.mfinante.ro – processed date

- The solvency ratio property (RSP) express coverage of equity assets.

Relationship calculation is:

Srp = Equity / Assets x 100 (8)

Table 8 Economic solvency situation in 2011

No.	Trader	Total assets	Equity	Srp %
1.	Euro Tyres	466.114.268	270.218.838	57,97
2.	Hidroserv	34.351.649	13.606.809	39,61
3.	Șantierul Naval Orşova	96.507.307	88.410.039	91,60
4.	Meridian	47.974.853	11.756.608	24,50

Source: www.mfinante.ro – processed date

Changing economic solvency ratio will be found in the financial rate of return, the relationship between the two indicators is as follows: lower economic solvency ratio increases leverage and hence the rate of financial return.

- Asset utilization (Au) shows total revenue is obtained from 100 USD total assets. Using the element of calculation, total income and total assets, relationship calculation is:

Au = Total income / Total assets x 100 (9)

Table 9 Situation the use of assets in 2011

No.	Trader	Total assets	Total income	Au %
1.	Euro Tyres	466.114.268	235.102.369	50,43
2.	Hidroserv	34.351.649	95.462.621	277,90
3.	Șantierul Naval Orşova	96.507.307	62.245.018	64,50
4.	Meridian	47.974.853	96.059.798	200,22

Source: www.mfinante.ro – processed date

- 100 lei revenue expenditure is an indicator expressing economic efficiency, calculating using the formula:

Ex/100 lei income = Total expenses / Total income x 100 (10)

Table 10 Statement of expenditure to 100 lei revenue in 2011

No.	Trader	Total expenses	Total income	Ex/100 lei income
1.	Euro Tyres	321.462.850	235.102.369	136,73
2.	Hidroserv	94.492.421	95.462.621	98,98
3.	Şantierul Naval Orşova	61.865.002	62.245.018	99,38
4.	Meridian	92.923.241	96.059.798	99,85

Source: www.mfinante.ro – processed date

Efficiency of their activity is even greater as the indicator values are lower.

• Profit per employee (P/employee) reflects each employee work efficiency and effectiveness in providing management and staff use.

Relationship calculation is:

Profit/employee = Net profit / Employees number (11)

Table 11 Situation profit per employee in 2011

No.	Trader	Net profit	Employees number	Profit/employee
1.	Euro Tyres	-	616	-
2.	Hidroserv	321.766	582	552,86
3.	Şantierul Naval Orşova	380.016	430	883,76
4.	Meridian	92.323	91	1014,53

Source: www.mfinante.ro – processed date

Increasing trend indicator reflects an increase in the efficiency of every employee. Except SC Euro Tyres Manufactoring Ltd, all other company recorded net profit per employee, the highest profit per employee was recorded by SC Meridian Ltd, 1014.53.

Table 12 Situation performance indicators in 2011

Entitate	I/e	Pri ‰	Pre ‰	ROE %	ROA %	Lr	Srp %	Au %	Ex/100 lei income	P/ employee
Euro Tyres	381.659	-	-	-	-	1,72	57,97	50,43	136,73	-
Hidroserv	164.025	3,37	3,4	2,36	0,94	2,52	39,61	277,90	98,98	552,86
S.N.O.	144.755	6,1	6,1	1,13	0,39	1,09	91,60	64,50	99,38	883,76
Meridian	1.055.602	0,96	1	0,79	0,19	4,08	24,50	200,22	99,85	1014,53

Analyze economic performance assessment was based on a set of indicators expressing the results of the use of material, financial and human resources in 2011. By analyzing Table no. 12 is noted that SC Euro Tyres Manufactoring Ltd. registered lost, and performance indicators reflect a poor business.

V. Conclusions

Based on the information gathered was established economic performance of the sample with the group in economic and financial indicators:

- productivity indicators;
- Profitability;
- The profitability indicators;
- Other indicators of expressing economic efficiency.

Overall assessment of performance and multi-criteria ranking of economic entities operating in different sectors of the national economy requires performance evaluation tools widely accepted unified conceptual framework. Attention profitability and return indicators should not overshadow productivity performance and other indicators of economic efficiency expression.

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FRAUD MANAGEMENT AUDIT AND THE EVOLUTION OF FINANCIAL MARKETS UNDER THESE CIRCUMSTANCES

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Abstract

Financial management could not be conducted without information in general and without financial and accounting information in particular. Economic, financial, accounting and market information is essential for understanding and applying the management objectives. Financial decisions rely upon the association between the regulatory economic policies implemented on a macroeconomic level and the individual financial decisions made on a microeconomic level. The responsibilities of external auditors, internal auditors and government auditors often require the investigation of suspected fraud. SAS 99 and SAS 110 require auditors to use the information obtained during the planning and performance of the audit to identify risks that may result in a material misstatement due to fraud. In addition, auditors need to be aware of the various types of frauds, their signs and the need to follow up to determine whether a suspicion is justified.

Key words: audit, fraud, stakeholders, financial information

JEL classification: G32

I. Introduction

For centuries, the main objective of the audit procedures has been to identify fraud and errors. Throughout the past century, audit professionals have shifted their focus

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from detecting fraud and error to assessing the extent to which financial statements meet the objective of true and fair view. However, a survey conducted among the users of the audited financial statements has revealed that many of them still believe that fraud detection is the main purpose of the audit procedures. It seems that this attitude among users is caused by their tendency to extend insignificant frauds to the financial statements as a whole. Among other things, the survey conducted by the Institute of Chartered Accountants of Scotland also reveals that the public understands audit proceedings mainly as providing the assurance that:

- no frauds have been committed, and
- the company hasn't broken any legal provisions.

Moreover, the public believes that auditors should inform third parties if they find that the management of the audited company engages in fraud or other illegal acts.

Financial statement may be materially misstated as result of errors or fraud. While accounting errors are unintentional, fraud consists of knowingly making material misrepresentations of fact, with the intent of inducing someone to believe the falsehood and act on it and, thus, suffer a loss or damage. This definition encompasses all means by which people can lie, cheat, steal and dupe other people. Management fraud is deliberate fraud committed by management that affects investors and creditors by materially misleading information. Since management fraud usually takes the form of misleading financial statements, management fraud is sometime referrers to as fraudulent financial reporting. The national Commissions on Fraudulent Financial Reporting defined (1987) fraudulent financial reporting as intentional or reckless conduct, whether by act or omission, that results in materially misleading financial statements.

Auditing standards define errors as unintentional misstatements or omissions of amounts or disclosures in the financial statements. Errors may involve mistakes in gathering or processing data, unreasonable accounting estimates arising from oversight or misinterpretation of facts, or mistakes in the application of the current accounting principles. Fraud, as the term is used in AICPA AU 240 (PCAOB316), relates to intentional acts that cause a misstatement of the financial statements. Misstatements due to fraud may occur due to either (1) fraudulent financial reporting or (2) misappropriation of assets (also referred to as "defalcation") (Whittington O. Ray, 2012).

II. Psychology of the events that may lead to fraud

Fraud can occur as a consequence of events such as (Horomnea Emil, 2009):

• manipulating and altering accounting records or documents (altering them in order to misrepresent or conceal the truth);

• altering or stealing assets;

• inappropriate allocation of assets, that may lead to the deterioration of the financial reporting of the audited company, with direct consequences on the consistency of its activities;

• eliminating or omitting the effects of certain transactions from records or documents, or recording fictitious transactions with the purpose of enhancing the financial statements;

• intentional misapplication of the accounting policies related to the presentation of financial statements that would mislead their users.

Apart from fraud and errors, the US audit standards also include the inappropriate and intentional acts or deeds performed by managers and third parties, either alone or/and with the assistance of prospective customers; these illegal acts, include the following (Arens et al, 2012):

• illegal commercial/financial transactions or operations;

• inadequate, incomplete or significantly delayed recording of transactions or supporting documentation;

• payments from the treasury of the organization for: unidentified objectives, unspecified services; consultancy provided by employees, offices or affiliated subsidiaries or companies from different industry branches; excessive commissions or fees, as compared to the current fees paid for similar services.

However, there are many cases when errors have the same consequences as frauds and, in these situations, auditors must ensure that it was something other than fraud. Errors can be caused by:

• the mathematical or financial errors occurring in the accounting calculations, measurements or records;

• the omission or misinterpretation of events that have a significant influence on financial statements;

- the misapplication and unknowing use of accounting policies.

Nevertheless, not even audit procedures conducted according to standards do not guarantee the absence of material deviations in terms of financial information, as deviations often involve misrepresentation attempts that can not always be detected, despite adequate audit planning and compliance with auditing standards. After the identification of the infringement, the auditor discusses with the management of the organization and, if this discussion does not reveal the legal nature of the transaction, the entity legal advisor will also be consulted and, if necessary, subsequent additional procedures will be conducted.

III. Types of audits

Audits are often viewed as falling into three major categories: *(1) financial audits, (2) compliance audits, and (3) operational audits.* Additionally, the Sarbanes-Oxley Act requires an integrated audit for public companies (Whittington O. Ray, 2012).

Financial Audits. A financial audit is an audit of the financial accounting information of an entity. An audit of financial statements ordinarily covers the balance sheet and the related statements of income, retained earnings and cash flows. The goal is to determine whether these statements have been prepared in compliance with the generally accepted accounting principles. Financial statement audits are normally performed by certified public accountant firms; however, internal auditors often perform financial audits of departments or business segments. The users of audit reports consist of management, investors, bankers, creditors, financial analysts and government agencies.

Compliance audits. The performance of a compliance audit is dependent upon the existence of verifiable data and of recognized criteria or standards, such as established laws and regulations, or an organization's policies and procedures. A familiar example is the audit of an income tax return by an auditor of the internal Revenue Service (IRS).

Operational audits. An operational audit is a study of a specific unit of an organization with the purpose of measuring its performance. The operations of the reception department of a manufacturing company, for instance, may be evaluated in terms of its effectiveness, i.e. its success in meeting its stated goals and responsibilities. Performance is also judged in terms of efficiency, i.e. success in using the resources available to the department to its best advantage.

The auditors' responsibility for identifying client noncompliance with laws and regulations depends upon their nature. The Professional Standards identify two types of laws – those with a direct effect on the financial statements in terms of identifying the results in the need for accounting journal entries. Examples include laws that affect the accounting for transactions under government contracts and the accrual of income tax and pension costs. Other laws do not have direct effects in the determination of amounts and related disclosures, but compliance with them is required to stay in business laws, environmental laws and regulations, and antitrust laws.

IV. Considering the effects of frauds (ISA 240-fraud)

The misstatements occurring in the financial reporting may be the result of fraud or errors. Auditors must focus on the fraud that leads to significant misstatements in the financial reporting. There are two types of intentional misstatements that are relevant to the auditor:

- fraudulent financial reporting;
- misappropriation of assets.

1. Fraudulent financial reporting (intentional misrepresentations or omissions of amounts or disclosures):

- manipulation, falsification or alteration of the accounting records or of the supporting documentation;
- misstatements/omissions related to events or transactions;
- intentional misapplication of the accounting principles;
- recording fictitious journal entries to manipulate operating results or achieve other objectives;
- inappropriate adjustment of the assumptions and changing the judgments used to estimate accounts balances;
- concealing or not disclosing facts that could affect the amounts recorded in the financial statements;
- engaging in complex transactions that are meant to misrepresent the financial position or performance of the business entity;

2. The misappropriation of assets:

- wrongful collection of debts/diverted earnings;

- tangible assets theft or intellectual property theft;
- payments to fictitious suppliers, without the receipt of goods/services;
- using assets for personal gains;
- false entries to cover missing items.

Throughout the audit process, the auditor must inquire about and find the causes of the fraud as well as the factors that influence the fraud risk.

The causes of fraud and the factors that influence the risk of fraud related to fraudulent financial reporting are:

- *inefficient control environment;*
- *administering unrealistic earnings meant to mislead the users;*
- *incentives/bonuses for meeting unrealistic objectives related to profit, as well as internal and external pressures;*
- *opportunities,* related to the nature of the economic sector, as well as the operations of the entity in terms of transactions with third parties, important, unusual or very complex transactions, assets, liabilities, revenues and expenses based on significant estimates, resorting to middlemen;
- consistent personal financial obligations of the employees can cause the misappropriation of the assets belonging to the company;
- negative relationships between management and employees, or the prospects of discharge, changes, promotions or compensations that fail to meet expectations.

V. The responsibilities of those charged with governance and of management in terms of fraud detection

The main responsibility for the prevention and detection of fraud rests with both those charged with governance of the business entity and with management. The responsibilities of those charged with the governance of the entity consist in ensuring, with the oversight of the management structure, that the entity establishes and maintains internal control in order to provide reasonable assurance in terms of the reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations.

The responsibilities of the management, with the oversight of those charged with the governance of the business entity, consist in establishing a control environment and

maintaining policies and procedures that would help meet the objective of ensuring, as far as possible, the orderly and efficient development of the activities performed by the business entity.

Therefore, the responsible parties that can provide the auditor with the information or the documents that would serve as evidence in identifying fraud are:

- governance – controlling risk monitoring systems, financial control and compliance with the law - attending meetings, reading minutes, requiring information;
- management – the way in which fraud risks are prevented, detected and assessed; management's reaction to fraud, including communication with the governance, the presence of a culture of honesty and ethical behavior;
- internal audit – auditors' opinion related to fraud risks, methods they apply;
- operating personnel that is not involved in the financial reporting process;
- employees in various management levels;
- employees involved in initiating, processing or recording transactions;
- ethical behavior manager or the person appointed to deal with fraud accusation.

The study conducted by the European Commission on the enforcement of corporate governance regulations reveals an upward trend in corporate governance codes on a European level.

Chart 1 **Evolution of corporate governance codes implemented in the EU**
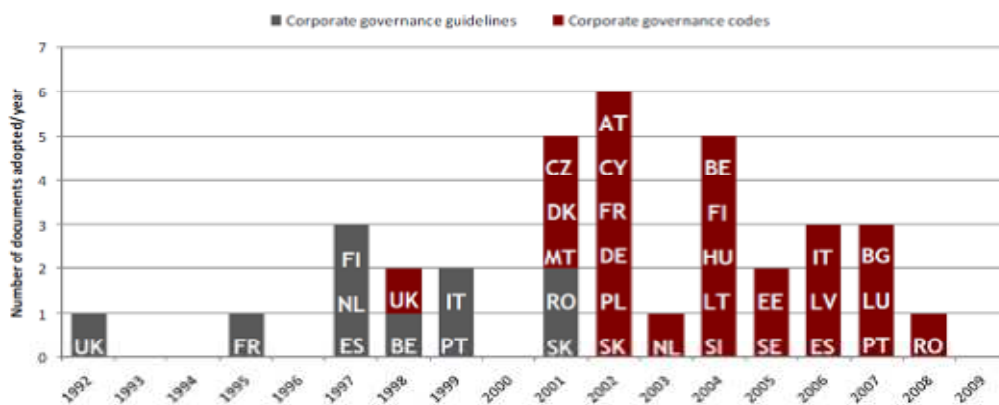
Source: http://ec.europa.eu/internal_market/company/ecgforum/studies_en.htm

Additionally, note that the member states of the EU *constantly revise their corporate governance codes, aligning them with the new recommendations of the European Commission.* However, there are still a number of corporate governance codes that need revision.

Corporate governance regulations provide a minimum set of information in the form of a comply-or-explain approach or a report included in the annual report that should be made available to the public on the company website.

Romanian companies present the information as a comply-or-explain statement, as opposed to German businesses that present a corporate governance report as part of the annual report.

VI. Evolution of the international capital flows during financial scandals

Ever since the '90s, AICPA (American Institute of Certified Public Accountants, 1993), mentions in the report of the Public Oversight Board that: *corporate governance in the United States does not work the way it should […] to blame are the many management committees that should make the system work in the appropriate direction … A more efficient corporate governance ultimately depends on a more consolidated role of the board of directors.* This caution has been disregarded by regulatory boards and management structures, while in the case of Enron, Global Crossing, Adelphia, and WorldCom *the main accusation of the US SEC commission was that the boards of directors and their administrative and audit committees in charge of financial reporting and audit failed to enforce proper monitoring.* Since *corporate governance principles* have been overlooked throughout the years, *a series of subsequent financial scandals* have highlighted the need to revise and develop new corporate governance codes, standards and regulations. We would like to mention some of the most famous financial failures from Great Britain, the US and Europe that have had a significant effect on the evolution of international corporate governance principles.

Chart 2 **Decline of capital markets in developing countries**
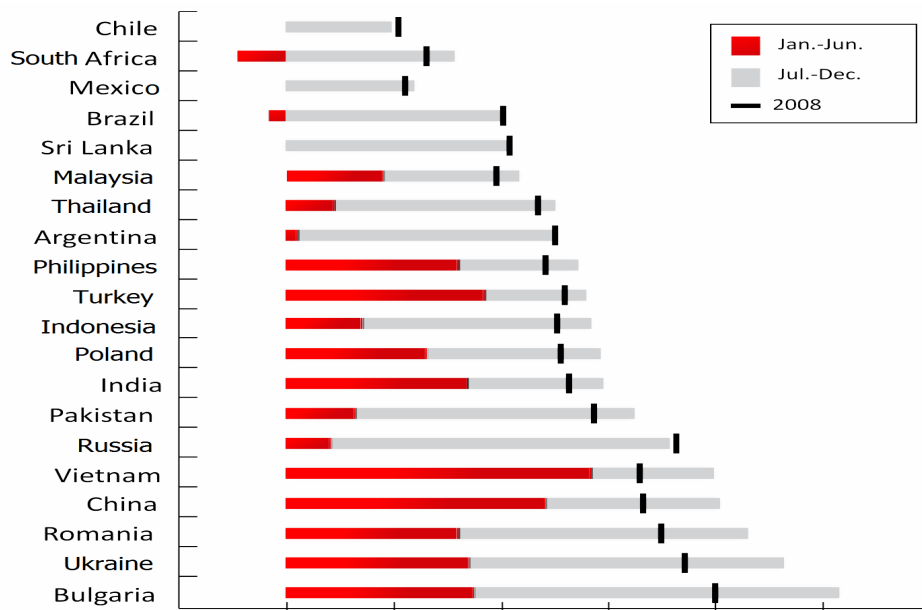
Source: analysis based on the information provided in the World Bank Report, 2009

The above chart shows that the capital markets in Brazil, China, India and Russia have recorded the most severe declines of 2008. Russia was the worst player of the four, with a 72.5% decline of the national currency (World Bank Report, 2009).

The severe fall of stock prices has resulted in considerable losses for most central banks, thus causing national currency markets to go into severe recession. The markets of the other three countries have lost more than half of their value – Brazil has declined by 40%, India by 52% and China by 66%. The severity of the recession during the second half of 2008 was more acutely felt by Brazil and Russia than by China and India, thus showing that the sudden fall of commodity prices has affected the former two countries more than the latter. Even highly efficient emerging markets such as Chile, Mexico and South Africa have suffered losses in 2008, which amounted to more than 20%.

VII. Conclusions

Audit procedures cannot offer the complete assurance that the financial statements do not contain any significant errors or frauds. The errors may occur either as a consequence of the incorrect processing of the financial information or due to the employment of a wrong judgment in selecting and applying the accounting standards. There is also the risk that the auditor may not be able to identify them, regardless of the rigorous methods used by the auditor while applying the audit standards. The INTOSAI standards provide that "*while conducting regular (financial) audits, compliance with the current laws and regulations must also be tested. The auditor must devise the audit stages and procedures in such a way as to provide the reasonable assurance that he had detected the errors and the frauds that may have a direct and concrete effect on the amounts presented in the financial statements or on the auditor's report. Additionally, the auditor must be aware of the possibility that the illegal acts may have an indirect and concrete effect on the financial statements or on the auditor's report*".

We can devise ten coordinating principles for efficient corporate governance:

- Control of the business assumed by the shareholders
- Reliable and complete public reporting;
- Avoidance of power concentration to top management levels
- Even structure of the board of directors
- Strong and motivated board of directors
- One independent element in the management structure;
- Effective monitoring of the management structures by the board of directors;
- Competency and commitment
- Risk control and assessment
- A thorough audit process.

However, the extensive research conducted on the behavior of public and private investors on developing markets have revealed that 80% of investors are willing to pay an additional sum for the shares of those companies that have an efficient corporate governance system.

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THE APPLICABILITY OF BAYES' THEOREM IN AUDIT RISK

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Abstract

The aim of this paper is to summarize the importance of the statistics in the financial audit area. Our main goal it is focused on "dissecting" the area of statistics to see what we can "steal" more from it for introducing it in the audit field. In the following paper we foresee a future direction of the audit for the next century. We try to prove that, if the auditor will used the Bayes' Theorem, then he will know for sure which is the possibility for a certain audit risk to appear, and which consequences can generate.

Keyword: financial audit; audit risk; Bayes' Theorem

JEL Classification: C11, M40, M42.

I. The connection between statistics and audit

Once with the advent of audit, also was taken into consideration the development of some procedures as simple for this activity, but in the same time to guarantee insurance and certification of these procedures. The involvement of the techniques and statistical methods in auditing was the result of a long process, assumed also by the professionals in our country. In both accounting and auditing, the role of the statistics is well defined regarding the principles in the field, see Barnett (2009), Tijms (2007), Steele (1992),

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Arens and Loebbecke (1981) and Smith (1976). Statistical methods to measure the audit risks that may arise in accounting and auditing continues to offer a certification increasingly more elaborate, due to this fact more and more accountants and auditors are starting to use the methods.

Our main goal it is focused on "dissecting" the area of statistics to see what we can "steal" more from her for introducing it in the audit field, for looking ahead to a future direction towards which he is moving.

In his book, Lawrence R. Dicksee Auditing: A Practical Manual for Auditors, published in 1907, states that the objective of an audit may be said to be threefold:

- the detection of fraud;
- the detection of technical errors;
- the detection of errors of principles.

As we know, the main objective of the independent auditor is to express an opinion on the fairness of financial position presented by the manager at a time and the financial results in a given period of time.

Although, apparently audit profession should be very simple, yet it's so complex and complicated. Due to this this fact the authors resort to different statistical methods to help them to determine more easily the risks that may arise during the formation of the opinion.

II. Bayes' Theorem

Why the Bayes' Theorem?

It is a really simple question, with an answer that it is, even, more easily to offer.

Bayes' Theorem is a supreme achievement for mankind or we can even name it a revelation, it all depends on how it is viewed the mathematics. No one should go through life without knowing what the Bayes' Theorem is and how it can be applied to every single element of our life. The first interesting thing is that the theorem is applicable in any field and in this way it can show us what to expect in any given situation. It should be emphasized, however, that science always investigating new concepts, new hypothesis so that science does not always provide 100% certification.

The Reverend Thomas Bayes first discovered the theorem that know bears his name. It was written up in a paper *An Essay Toward Solving a Problem in the Doctrine of*

Chances. The paper was found by his friend Richard Price, after the reverend died, and who had published it posthumously in 1763 (Bolstad W., 2007, pg. 6).

Bayes' Theorem is not the only one used in the audit field but as some authors proved to be the more efficient in the audit area we decided also to use it. In practice we find and the Stinger's bound that it is a non-parameter 100 (1-α) % and is used to find the upper limit of confidence for a fraction of errors in a population of crowds. It is easy to use but in many cases it is overly conservative. Moreover the 1989 *National Research Council's panel report on Statistical Models and Analysis in Auditing stated that* „...the formulation of the String bound has never been satisfactorily explained". This raport is an excellent survey of this and related problems. (Meeden G., Sargent D., 2005, pg. 3).

Another example of the efficiency of the Bayes' theorem was proved in 2007 by Kirk, Manalopoulos and Spathis who conducted a research entitled *Data Mining techniques for the detection of fraudulent financial statements* where they experimented with 3 statistical models: the neural network; the algorithm „decision trees" and the Bayesian network. The results obtained in the validation model, as a consequence of the applicability of the models for classify the firms into firms with fraudulent financial statements and firms with the financial statement correct that were reported based on the information from the final financial reporting, were the follows (Stroe I.A, Medinţu D.N., 2011, pg. 19):

- accuracy of the model and algorithm „decision trees" reached a level of 73.60%;
- accuracy of the model based on neural network reached 80%;
- accuracy of the model based on bayesian network has reached a level of 90.30%.

The accurate methods can't be 100% sure, but if we had to choose a model by which to go, we will always choose the one that gives us a higher rate of certainty, comparing the one that give us a lower percent of certainly.

The Bayesian model in the assessment of the audit risk express the possibility to use the probabilities with the personal estimated values and to modify the objective as a new data appear, because the elements of uncertainty are numerous and subjective, and may be revised as a result of the acquisition of new information (Genete D., 2006, pg. 26).

The power of Bayes' theorem lies in the fact that it is related to the quality of the interest, the probability that the hypothesis is true given the data, to the term that we have a better chance of being able to assign, the probability that we would have observed the

measured data if the hypothesis is true. (Sivia D., Skilling J., 2006, pg. 6). Bayes' theorem is a first step in determining the probability that an event „A" in the situation when it is known that the appearance of it is affected by the achievement of another event „B" which is independent. In other words, the event that is associated with a possibility depends on the level of knowing (and knowledge) to the awarding possibility. When we know the phenomenon that we are analyzing it, it will increase based on the new information that it is bring to the phenomenon, thereby the possibility that was attributed to the event changes.

The formula of Bayes' Theorem is the following (Sasu L. *Modele grafice probabilistice – note de curs,* 2013):

$$P(E|C) = \frac{P(C|E)P(E)}{P(C)}$$ (1)

Equation 1 – The formula of Bayes'

Where:

- P(E|C) is called *posteriori* probability. With other words it expresses that the experience is the one that will determine what is true and what is false.
- P(E) is called *priori* probability. It is based on theoretical knowledge of the knowledge and is not based on their empirical observation is that the event „E" that is going to happen since event „C" has already happened;
- P(C|E) is called *likelihood*. Check the most probable value (the best one) of the event „C" it is the one for whom the event „E" has a maximum value;
- P(C) is called a *record* (proof). Is the event „C" that is known to already happened.

This theorem is a conditional probability for event „E" that will happen only if the event „C" has already happened. This means that whenever we add new information, if we know that the event „C" will happen, no matter what, what are the events „E" that result from adding new information.

Knowing all this we can express the equation in a more plastic (artistic) way:

$$P(Hypotesis|Evidence) = \frac{P(Evidence|Hypotesis)P(Hypotesis)}{P(Evidence)}$$ (2)

Equation 2 The artistic formula of Bayes

We can conclude that Bayes' theorem represent the update way of confidence in the hypothesis „E" under the influence of new evidence „C".

III. How does it work?

In the following paragraphs we will try to illustrate how to apply Bayes' theory in practice and to demonstrate that, contrary to public opinion, it is easy to apply in practice. All that is needed is the will, determination and to provide to customers the results that they are waiting for it.

Exemplifying theorem will be made in two practical cases. The methodology used in this study paper is adapted to meet the objectives and the aims of the work. The main method used in the preparation of this case study was the collection of theoretical information from sources such as books, articles, journals and internet. For the examples of the audit risk, had open discussions with various chartered accountants and financial auditing professionals.

Example 1

An auditor on his way to audition company thinks that it has 3 options that will meet within the company, namely: a control risk low, a control risk medium or a control risk high. With other words, he may find that accounting systems and internal controls are operating effectively or that is not working effectively. Through the preliminary assessment of control risk will detect and prevent material misstatements that may occur in the company. Along the way, he will meet with another expert who (without knowing that the auditor will audit the entity X) tells him that the entities' X accounting systems and internal controls are not effective. If before meeting with experts, the auditor started from the premise that the control risk is high in the entity X, after meeting with the expert, he it revises its opinion and conclude that control risk is low. At this time a conflict happens to the auditor because he knows that he should not be influenced by others, but knowing that the person he meet is an expert has no way to disregard the new information.

In the following, we will prove using Bayes' theorem what will happen if the auditor considers the new information available from expert or what will happen if he will not take this information into account. It should be noted that this example is a model demonstrate the applicability of Bayes' theorem in audit risk and any auditor before they

form an opinion should analyze all data within the company and they shouldn't form an opinion on what another person tells them..

We denote by R_i the event on the opinion on risk control, ie $1 \leq i \leq 3$ – this represents that the risk control can be any of the three variants (low, medium and high), but given that the auditor starts from assume that control risk is high it is denoted by i. Initially $P(R_i) = \frac{1}{3}$. We denote with P_{ij} the event that the auditor meet with the expert which provides him with new information (j) (involuntary) about the entity X, this is the element that modifies the opinion about the control rick. From all this results that:

$$P(P_{ij}|R_k) = \begin{cases} 0, & if\ i = j \\ 0, & if\ j = k, i = j \\ \frac{1}{2}, & if\ i = j, j \neq k \\ 1, if\ i \neq k, j \neq k, i \neq j \end{cases} \quad (3)$$

Without restricting the generality of events that happens we believe that the auditor assumes that control risk is high (i = 1), and expert opinion influences which then becomes that control risk is low (j = 3). For starters, the auditor does not want to be influenced by expert opinion, but since he acknowledges was made known to (accidentally) this new information, he can't ignore them:

$$P(R_1|P_{1\,3}) = \frac{P(P_{1\,3}|R_1)P(R_1)}{P(P_{1\,3})} = \frac{1}{6} * 2 = \frac{1}{3} \quad (4)$$

$$\text{Where } P(P_{1\,3}|R_1)P(R_1) = \frac{1}{2} * \frac{1}{3} = \frac{1}{6}; \text{ also}$$

$$P(P_{1\,3}) \sum_{i=3}^{3} P(P_{1\,3}|R_i)P(R_i) = \frac{1}{2}, \text{ therefore } P(R_1|P_{1\,3}) = \frac{1}{3}. \quad (5)$$

This proves the fact that no matter how much he would like the opinion of the auditor on the fact that that the controls risk is high, this it changes when the new information was brought to their attention, by the experts in the area.

So, we have $P(R_3|P_{1\,3})=0$ and through complementarity we obtain $P(R_2|P_{1\,3})=1-P(R_1|P_{1\,3})- P(R_3|P_{1\,3})=1 - \frac{1}{3} - 0 = \frac{2}{3}=2* P(R_1|P_{1\,3})$ from here we can observe that result that they are two more chances that the information which the audit got it from the expert to be true, and if the auditor will changes his initial opinion, that the control risk is high, he has twice more chances to testify the fact that control risk is medium or low. Of course,

this does not means that, information from experts is not false and control risk within the entity X to be high, but in the absence of other knowledge is better to change their original opinion.

Example 2

The first time when the financial auditor enter in a company which he is going to audit it, will think that he has two choices: to find that the annual financial statements are properly prepared or that the financial statements aren't properly prepared. In the meantime, he finds out that the company management has changed. From this situation may arise two possibilities: that the new leadership has knowledge in the area that he was chosen, or he has a total lack of knowledge in the area. The experience, the knowledge management, as well as the changes that arise in the management in the audit period, e.g. the inexperience of the new management may affect the financial statements - which have been a general inherent risk. This statement can be seen in the figure below.

Figure 1 Initial situation
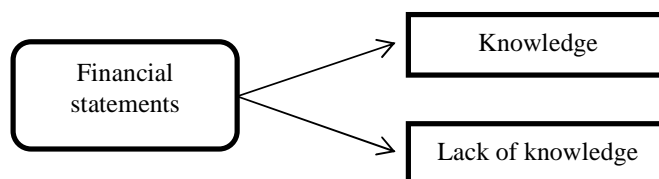
Suppose that after the financial auditor takes knowledge of this fact he is thinking of two possibilities that may overcome from the given situation of the company, from the fact that the manager has knowledge of financial statements and from the fact that the manager has a lack of knowledge in the given are:

- Financial statements correct – that will continue to be prepared correctly or will start to be prepared wrong given that the manager has knowledge in the field;
- Financial statements wrong – that will start to be prepared correctly or will continue to be prepared wrong given that the manager has a lack of knowledge in the field.

Do to this new situation we'll continue the next figure in the following way:

Figure 2 Model of application of Bayes' Theorem in audit
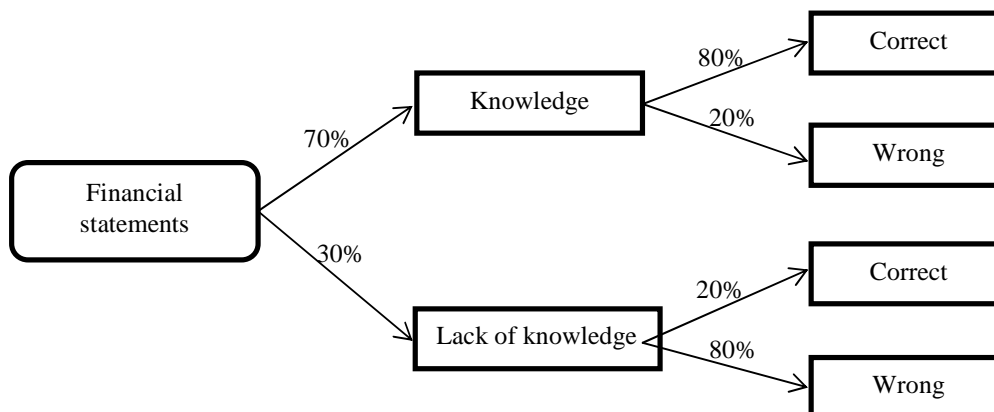
Observation: It states that the percentages obtained are based on professional competence and forecasts based on several talks with chartered accountants and financial auditing professionals and this can vary from a professional to another.

Explication of the second figure:

- probability of 70% and 30% - i.e. once the auditor meets the financial statements until the moment when he will form an opinion on the level of trust that will be given on them, taking into account the finding news that the company's management has changed is called the unconditional probability. I.e., the independent auditor will form an opinion at the end of favorable or unfavorable, whether new management has experience or not, this means that the event „knowledge / lack knowledge" already happened regardless of future ones. Values and scoring this indicator is thus P (E) = 70% when the new leadership experience helps or not the financial statements, i.e. P (E) = 30% for the case when the inexperience of new leadership helps or not the financial statements.

- probability of 80% and 20% - that is, since the leadership change and thereby affecting the financial statements in the positive or in the negative way, this period is expressing the conditional probability, i.e. the change in the company wouldn't happen probably that the change produce would not be greatly affect the final result, but since

they introduced the new information to our main event, they generate another hypotheses. In this way, seems that the financial statements can be positively or negatively affected by the change in the management. There is the possibility that the lack of knowledge is likely to affect the final preparation of the financial statements. The values and the scoring of this indicator is as follows:

- o P(C)=80% - when the financial statements are properly drawn up in the end, and the knowledge of the new leadership helps in elaboration them;
- o P(C)=20% - when the financial statements are wrong drawn up in the end, and the knowledge of the new leadership doesn't helps in elaboration them;
- o P(C)=20% - when the financial statements are properly drawn up in the end, and the lack of knowledge of the new leadership helps in elaboration them;
- o P(C)=80% - when the financial statements are wrong drawn up in the end, and the lack of knowledge of the new leadership doesn't helps in elaboration them

- joint probability - the likelihood that the financial statements are prepared correctly is 80% given (i.e. due to the fact) that the management of the company has changed. The values and the scoring of this indicator is thus $P(C \mid E) = P(C) * P(E) = (70\%)(80\%) = 56\%$. This means that if at the end of the audit period there is a verisimilarly of 56% as that the financial statements are properly drawn up regarding the fact that the new management have knowledge in the area. As demonstrated, the credibility of the financial statements to be prepared correctly is a moderate degree of the confidence even if the new management has knowledge in the area. On the other hand, if we calculate which is the credibility that the financial statements are prepared correctly even if the manager's lack of knowledge is $P(C \mid E) = P(C) * P(E) = (30\%)(20\%) = 6\%$. A very low confidence level is given in this situation, must be borne in mind that if we gather the four probabilities $P(C \mid E)$ must be the total of 100%.

Given the above data, Bayes' theorem enables us to answer the following question: If at the end of the year, the financial statements of the company are properly drawn up, what is the probability (possibility) that the new leadership skills to affect them?

Knowing that the unconditionally event that the financial statements are properly drawn up at the end of the year, are influence by the new leadership with 70%, but early, at the beginning of the year, evidence that the year before the financial statements have been prepared correctly, then we change the perspective that the experience of the new

management would influence the proper preparation of the financial statement, to see this we can apply Bayes' theorem.

$$P(E|C) = \frac{P(C|E)P(E)}{P(C)} = \frac{(80\%)*(70\%)}{(80\%)*(70\%)+(30\%)(20\%)} = \frac{56\%}{56\%+6\%} = \frac{56\%}{62\%} = 90,32\% \quad (6)$$

We note that the conditional probability increased, knowing is noted that the financial statements at the end of the year, with 90.32%.

So we went to the unconditional probability where we had no information to condition the new leadership and experience which is 70%, when we observed that the financial statements have been prepared correctly (since they are very much dependent the knowledge of the person who prepares them) then we can say with certainty that the new leadership skills to prepare accurate financial statements at the end of the year grow to 90.32% from 70%, so it is necessary to have experience in the field to prepare financial statements accordance with the international standards and with the law.

We can conclude that there is 90.32% chance that the risk inherent to intervene if the new leadership does not have knowledge in the field, this means that it is inherent in the entity level.

IV. A final note

Given the two examples shown above we can conclude the two following statements:

• In the first example, since we do not have further information occurred, the auditor will remain of the opinion that control of the entity's risk is low to medium;

• In the second example demonstrated that knowledge in the field of new leadership will influence inherent risk concluding that it is high.

Considering the following table we can say that there are 2.25 times more likely to:

• undetected risk if the control risk is low and the inherent risk is high to medium

• undetected risk if the control risk is medium the inherent risk is high to low.

Table 13 Appraisement of the undetected risk

		Control risk		
		High	**Medium**	**Low**
Inherent risk	**High**	Really Low	Low	Medium
	Medium	Low	Medium	High
	Low	Medium	High	Really high

Source: Cosserat G.W, *Modern Audit,2ⁿᵈ edition,* John Wiley & Sons, England, 2005, pp. 138

If we are taking into consideration the probabilities theorem we can appreciate that there is a 56.26% chance that the two situations that we concluded above, may happen. As we can notice the probability is quite high, in this moment the auditor has to gadder more evidence to see in which part to tip the balance.

This paper offer to the readers a short guidance of how we can use the Bayes' theorem in the audit rick, it is a tool to fulfill the need of the professional that it is curious regarding the applicability of the theorem in the audit risk. Auditors have a great responsibility to respond to all the audit risks. In the paper we proved what is the probability for an event to happen, in a given situation, when we are adding more information to the main hypothesis. Using the Bayes' theorem, the time that the auditor is using with preparing all the procedures will become shorter, a fact that everybody wants to achieve. There are a lot of methods that we can use to detect and prevent the audit risk but, as we proved above, the Bayes' theorem is the best one to use. We try to fulfill the main goal of this paper and in this way the information from the paper it can be available and accessible to a wide range of experts who might want to short their time from working time.

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THE IMPORTANCE OF TACIT KNOWLEDGE IN TRAINING THE EMPLOYEES TO ACCES THE EXECUTIVE POSITIONS IN THE BUSINESS ORGANIZATION

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Abstract

The aim of the present paper is to underline the most important definitions regarding some key concepts like: knowledge management or tacit dimension, to pinpoint its implications in the global competition of the business and to explain which is the importance of the tacit knowledge in the formation of the employees to reach the executive positions in a business organization. This paper focus as well on the possibilities of training within the company and emphasize which are the ways to capture the tacit knowledge from the individuals and use it for the organizational welfare and for the personal development that brings promotion to another level, called `C` level.

Key words: knowledge, management, tacit dimension, training, executives.

JEL classification: J 24, M 12, M 53, M 51

I. Introduction

The main objective of this paper is to point the concept of knowledge management and its implications in the global competition of the business and as well to

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explain the importance of tacit knowledge in the formation of the employees in accessing the executive positions in a business organization.

We choose this theme most of all because, we remarked the importance of knowledge management in everyday life and therefore the indissoluble contribution in the demarche and success of business organizations. Probably we will never forget, that, among hundred materials that reached in our hands, one of them, and of course, other copies or takeovers of it, in which was write: we know more than we can tell. To call it moment inspiration or just a really clever affirmation, we don`t know for sure but, definitively, made us choose to talk about knowledge management thru: tacit and explicit form and thereby the implication of tacit dimension in reaching an executive position in an economic entity.

Going more deeply our final goal will be accomplished by: sorting the most relevant definition of knowledge management from an amount of possibilities, pinpoint the difference between tangible (explicit) and intangible (tacit) knowledge, distinguish the executive positions in an organization, underline the most important training methods within the organization and highlighting the implications of the tacit dimension in the training to become an executive.

Thereby, the first part of the paper explain the concept of knowledge management and shows the classification of knowledge proposed by the experts in this field, the second part of the paper presents the executive position in a company going from traditional one to the one specific for some kind of organizational culture and underline the most recognized ways to train the employees, while the third part of the present paper emphasize the implication of the tacit knowledge in the training of the employees to access the executive positions.

Nowadays, more than ever, the importance of knowledge is pinpointed in the global competition of the business organization. There are many terminologies that can fruitful explain this concept, but going more deeply to the substrate of this amount of possibilities, it can be remarked that to define this term is not an easy task.

The creation process it is the final goal of each organization, even, most of the times it`s an unforeseeable process that is impossible to be predicted. Thru the creation and utilization of knowledge any kind of organization, has the capability to be called dynamic from this point of view.

Taking into account that the most important aim of the present paper spins around the business organization, knowledge is far one of the most relevant key for the organization success and therefore a source of competitive advantage and its importance is widely accepted nowadays. Therefore, a lot of individuals that occupies the executive positions admit that knowledge creation has a significant role in their companies. The orientation towards knowledge management starts in the 90`, when, nowadays companies were urged to take into account the knowledge creation as a source of success, due to the fact that the huge benefit promised by knowledge management it is innovation.

This dynamic knowledge is, nowadays, an indissoluble source of competitive advantage and of course, the risks appear once with the success, risks for the organization to be less competitive. That is why the focus is in creating quality and quantity, better than the competitors, because as Sun Tzu said: If you know the enemy and know yourself, your victory will not stand in doubt (Sun Tzu, The Art of War).

The question that comes with the conception of the present paper is: how much is important the executive level in managing this knowledge process and therefore which are the implications of tacit knowledge in the training and formation of the employees to reach those executive positions? Thus we will try to conceive some answers that underline the indissoluble connection between the way that tacit knowledge are absorbed from individuals and codified and how this activity is reflected in the formation of the employees and its development to become executive.

II. K.M– Choosing the Best Definitions among Hundred Possibilities – Research Issues

It starts to be hard to make a good choose, of the best points of view among the time, in this area, because the possibility that comes up is spinning in a huge diversity. Many researchers in the area of knowledge management seem to think that the field spring into existence, just a few years ago, which can be considered partially truth. Indeed after 90`, it was a more fruitful period of contribution to what we call today: the current state of knowledge of this field. This is demonstrated by a delightful attribution of the definition of knowledge to Nonaka, when, in fact, such a definition, though not in precisely the same words, was provided by Plato in the Socratic dialogues (Despres, 2000). In the same time, Charles Despres gives a considerable definition to the concept of

knowledge management and in his view: Knowledge Management represents an evolution of the move toward personal and intellectual freedom that started with the age of enlightenment and reason over 200 years ago.

The primal and most popular association of this term goes to the side of the scientific knowledge, which mostly arises from the academic research, built thru the existence of methods and norms. The second association is given by the experience and the know-how that an individual can possess; this can lead to the acknowledgement of the proverb: *the right man at the right place*. These properties of an experienced person can be associated with a set of rules coming from inside: feelings, skills or above experience and as Polanyi said: we can know more than we can tell (Polanyi, 2009).

Knowledge management is totalizing knowledge and experiences from more than one domain therefore the domains that count and have an implication are: management, business administration, information sciences or information systems and of course during the time this area seems to be filled up thru new domains like: the contribution of computer science, public policy or public health, all of these being the one that brings continuous improvement of the organization performance thru the competitive advantage, organizational learning or innovation.

Knowledge management is a multidisciplinary field of study, due to the fact that during the time were published a number of definitions, that easily exceed one hundred, about what this field can mean and how many domains are gathered thru its existence. However, the field of knowledge management does suffer from the *Three Blind Men and an Elephant*. In fact, there are likely more than three distinct perspective of KM, and each leads to a different extrapolation and a different definition (Dalkir et al., 2011).

Related to this concept, from a business perspective, knowledge management is defined by (Grey, 1996) like: a collaborative and integrated approach to the creation, capture, organization, access and use of an enterprise intellectual asset. There is very important to not confuse knowledge management with the intellectual capital, even to apply the principles of intellectual capital and knowledge management is just to increase the performance and as (Brooking, 1999) said that: Finally knowledge management is the process by which we manage human centered assets … Also knowledge management is not the same as intellectual capital. Many people have confused the two for some reason, but the word management in knowledge management definitively suggests a process, whereas intellectual capital is an entity, an asset, not a process. Therefore, the function of

knowledge management is to guard and grow knowledge owned by individuals, and where is possible, transfer the asset into a form where it can be more readily shared by other employees in the company.

Knowledge management is the idea under which information is turned into actionable knowledge and made available readily in an operational form to the people who can apply it (Information Week, September 1, 2003).

In general, after individuals gather information, they interpret it from their experience, skills and competences. So, their interpretations could be different from each to the other. Possibly, for those who have insufficient competences, information still remains as information. If the current KM language and practices are not working, then we better find a way to make them work, or invent new ones (Stankosky, 2005). There are huge benefits of using knowledge management, this benefits includes the flexibility of organizations to respond to the changing that appears in the market and as well the flexibility to own the talent of being innovative. Tacking this into account we can affirm that the welfare of a business depends, nowadays, more than ever on using the knowledge management creation with the cleverly of a huge competitive advantage.

Many knowledge management efforts have been largely concerned with capturing, codifying, and sharing the knowledge held by people in organizations. Knowledge management represents a deliberate and systematic approach to ensure the full utilization of the organization`s knowledge base, coupled with the potential of individual skills, competencies, thoughts, innovations and ideas to create a more efficient and effective organization (Dalkir et al., 2011). This is far the most important goal that an organization has to reach but it`s a hard task, so even, the goal will not be completely accomplished, the efforts of trying are a step more in front of our competitors.

III. About The Tacit Dimension

Regarding to the delightful classification given by Nonaka and some researchers in the field of knowledge management, we will find out the existence of two dimensions of the knowledge: knowledge is both explicit and tacit. Some knowledge can be put on paper, formulated in sentences, or captured in drawings. Yet other kinds of knowledge are tied to the senses, skills in bodily movement, individual perception, physical experience, rules of thumb and intuition (Von Krogh et al, 2000). In these sense, riding the bike it was

a good example, because there is not a set of rules that can underline how to ride the bike, and each of the individual that try to make it, it`s just following a snap set of rules that simply come from inside, probably from skills in bodily movement or intuition. For sure that none of us could explain how did he or she fall down from the bike, it has just simply happened.

Constatin Bratian (2011) affirm that: we are living in a world full of tangible things, from our home and office, tiny objects to the city buildings, bridges, buses, trains and airplanes… We are living also in a world full of intangible things, from the knowledge we learn in schools to the great discoveries of science. For many people the life equation is very simple: the more tangible one has, the more happiness she or he can get. From our point of view is a really good observation, considering that, for the individual day to day life, this is the only goal of his living, achieving the most tangible things and as soon as possible as better it is. One more time the welfare of an organization can suffer a lot if the main purpose of its activity is just achieving benefits, not matter the way this economical profit is made; Knowledge and intangible are a top strategic issue. It is vital for an organization if it wants to be competitive, sustainable and profitable (Mertins, 2003).

Clearly we have to focus on the idea that the individual are the most important category of assets that exist in an organization and that create, codify and manage knowledge; and that, as it will be shown below, they become important in dual way in the same time, because they meet the other shareholders that are the customers and most of the time the customer needs are tacit.

During the time Ikujiro Nonaka, which is considered one of the most prominent thinkers in the knowledge management, put the base of a consistent and remarkable theory that underline the dynamic of knowledge creation. He, obviously helped by his co-workers, structured this creation as a core of four ideas: ✍Knowledge creation at individual level, which goes thru explicit and tacit; ✍Knowledge conversion: socialization, externalization, combination and internalization; ✍Knowledge creation at organizational level, which is based on those four conversions; ✍Knowledge creation shared space- Ba (Nonaka, 1995).

Taking into account the knowledge creation at the individual level and Nonaka`s classification we can say that the explicit knowledge are the one which can be transposed in a formal speech and as well transmitted from an individual to another one.

On the other hand tacit knowledge which are the personal knowledge of individuals based on experience and other intangible factors such as beliefs, perspectives or a set of intangible values, can`t be transposed directly in a formal speech but can be converted. Moreover, as (Collins, 2010) underlines: tacit knowledge drives language, science, education, management, sport, bicycle riding, art and our relation to machines. From this we can understand one more time the organization need to transform those into explicit form, because they just create innovation and competitive advantage.

For capturing tacit knowledge from individuals or groups can be used three approaches, and in some cases, these approaches can be or not combined:

- Interviewing experts - structured interviews with experts is the most used technique to transform tacit knowledge into explicit forms essential. In many organizations, structured interviews are realized when scholars knowledgeable employees, are close to retirement. We want to underline the fact that not only in this case we need an interview to absorb the tacit, we mean, not only from the employees which are close to retirement leave from an organization, it-s often happening that the most knowledgeable employees, leave first, even they don-t have the age for retirement they leave prematurely.

- Learn from what it is told to you – the interviewed expresses knowledge, than sand them, and in the same time the interviewer clarifies and validates the knowledge, putting it in an explicit form. This form of knowledge acquisition requires, among other things, simulations, which are especially effective in the later stages of validation, refining and finalizing the process of capturing knowledge.

- Learning from observation – observation is an important tool that can provide a lot of information. Observing in silence is the best way to capture some features of a spontaneous process or a procedure.

Of course, there are others techniques for capturing the tacit knowledge from individuals and groups:

- Narrative stories - stories are another excellent way to capture and codify tacit knowledge. An organizational story involves a detailed account of the actions of managers, the interactions between employees or other events of the organization, which are transmitted informal within the company.

- Brainstorming or ad hoc sessions - these are sessions no longer than 30 minutes and that share ideas in an open, stimulating atmosphere. These sessions may take place during face-to-face meetings, or may be held by the IT help, e-mail, teleconferencing or chat.

We consider to be very relevant to underline the modalities in which the tacit knowledge can be captured from the individuals due to the fact that we need them to propose the implications that the knowledge thru its tacit dimension has on the training and formation of the employees, in their ways to become executives.

IV. The structure and tools of `C`- level

We talk and affirm in the content of our paper all of the time about the executive position, and here it comes the time to pinpoint in an explicit way the answer of the question: what does executive means? A shortly answer can be: a person responsible for an administration. Well, to understand the position of an individual who reaches the executive position in a business organization, we need more than this administrative coordinate. A wide view will consider an executive much more than an employee with an administrative role. Therefore, education, work experience, advancement, certifications or skills are just the core tools of what a `C` LEVEL individual has to own within this function.

The top of the executive levels in an organization is called `C` level that refers to the letters with whom starts each category of executive officers. These three traditional officers are: CEO- Chief Executive Officer, COO- Chief Operations Officer, CFO- Chief Financial Officer and are mostly find in the traditional organizations

When we consider the bank, an insurance unit or any kind of financial services environment there are more than these three classes of officers. For example The Chief Administrative Officer or CAO, is responsible for administrative management of the corporations, no matter if they are public, private or governmental agency. The Chief Risk Officer or CFO has the duty of effective administration in an efficient way of the significant risks, not matter the type, be them: strategic, reputational, operational or financial risks. On the other hand the companies with a technological profile, including here the IT or telecommunication field, tend to have a Chief Technology Officer – CTO or a Chief Information Officer- CIO. Taking into account the companies whose profile is oriented to creativity and talent, including here the web designs entities or the films studios; we will find a Chief Creative Officer- CCO, officer that has to take care about the aspect or design of some products or services.

More than a half of the richest companies have a Chief Diversity Officer or CDO, this title and some of the one discussed above, are not mainly recognized as corporate officers, they are appropriate just for some organizational culture.

Some of the economical entities have a chairman and a chief executive officer in the top of executive rank, the second place been employed by a president and a chief operations officer. Regularly the `C` level titles are over the vice-president ranks, but often it happens that C level officer have the title of a vice- president. In some European or Asian countries, there are two separate committees: a executive one which is presided by a CEO and a supervising committee presided by a chairman which is elected by the shareholders. Different persons own those two roles.

CEO- chief executive officer is the highest corporate executive officer of a corporation, in some cases, for example in a small business an executive chief can be chairman and president, but mostly this titles came separate and are owned by different person.

When an employer decides recruiting a person for a management/executive position at his company, he has available two ways: either to find the right person on their own, if he has a recruiting department or to appeal to an agency of executive search that could do this in place. There is no time to waste for a major organization when a management position is has to be cover, because a longer period of time means high losses.

Most of the time companies are habituated to look inside and not outside in searching for a successor. Therefore, shortly thru this paper, we try to take into account the tools offered by knowledge management thru its tacit dimension, for this ascension and we try to quantify the implications of tacit knowledge in this equation.

V. Usual Training Methods

The activity of formation thru the training targets the accumulation of a set of knowledge, abilities and skills, due to a transmission process of some information of practical and theoretical nature. In the same time, this transmission is connected to the achievement of some abilities that are specific to the accumulated information. If upon of time the concept of training was founded under the form of apprenticeship and in the same time was focused on the physical abilities, nowadays is definitively called in another way,

most of the times being founded under the form of personal development and is based on the development of some muscles in the obtaining of special skills from this point of view. The training tracks the development of the skills, capabilities and human performance.

Therefore, to understand the concept of training is very important to see the difference existing between: education and development. Otherwise we have to make the distinction between the educational process (made in schools to obtain a wide job profile) and the preparation or improvement made by the firms in own schools. In this way, the professional training is divided in initial training and continuous training which demarche is made thru other forms than the one specify for the traditional learning system. The second one is further the initial formation and assures to the adults the development of professional competence already acquired, or the acquirement of new competences.

The training helps an employee to be more efficient in a job; the development is a prerequisite of his promotion while the education helps an individual to succeed in his career, no matter his domain of activity. The courses of professional training can be: courses organized by training providers; courses organized by employers within their own (apprenticeship at work) and mostly during the function they have within the company; internships and specialization in the country or abroad; other forms of training provided by low

When we consider the preparation by the firms in their own schools, we can see it as a process of enrichment, extension and systematic consolidation of the knowledge; the second type of preparation- the continuous one helps an individual to be specialized in certain function within the company or be qualified and promote in an executive function.

So the training can be defined as a an activity with educational profile which take place in the idea to improve the employee performance in the function that he has in the present and to be prepared for a another future job or position in the economic entity.

Most of the times, the employees are trained during the function they have in an organization. This is the most popular or common way to train an employee. Even is planned or not the hired person are learning thru the experience they have during the function they serve and employee development should be integrated with work (Graber, Rothwell, 2008). This kind of formation is made mostly by employees that already have enough experience in the organization. During the Second World War in USA, it was developed a special way of training in the function, the instructional training, which was

more appropriate for the preparation of the civil personal from the producing area of military equipment.

The stages of the training process can be distinguished in the consideration of for levels. The first one is a kind of answer to the question: do we need formation thru training? So we try to identify our needs and analyze thru: the knowledge recognition and the skills analyze. The second level is the frame delineation and the establishment of the objectives and as well an action plan. The third stage is the training conduct that can be made thru: brainstorming, group exercise, case study, led discussions, demonstrations, lecture, role-play, simulations, and video presentations. The last level consists in the evaluation of the training.

Training techniques are the methods of learning that the trainer uses to transmit information and generate its impact on participants. The most common training techniques are: case study, role play, group problem solving and presentation. The employees can be trained as well by simulation, cooperation, behavioral experience, laboratory training or assisted instruction.

Knowledge is the sum of what an individual knows a complex of truths, principles and information. This sum influences the development of employee skills and attitudes to effectively meet the job requirements.

- Modalities and techniques of initial formation**.** For the professional preparation of the employees we can eight for the training methods at work *(instruction on the job)* were we can choose between: *workplace instruction, post rotations or mentoring*; either for methods of formation like classroom training *(instruction out of the job)* were we can choose between: *lectures, participation in seminars and conferences, programmed learning, study case method, role play, simulation or group exercises.*

- Modalities and techniques of continuous formation (professional development/ professional perfection). Comparing with the first one this is a more complex process, which involves acquiring new knowledge and skills in the qualification that a person already possesses, or a multiple qualifications or retraining. Continuous training is more valuable for the executives who have to face new challenges, whether this challenges are external (new projects, a new role) or internal (restructuring, changing market structure) - but it is very important for other employees in the company eager for self-improvement, or that want to be promoted to an executive function. From the methods of continuous

professional training are recommended: *temporary replacement of hierarchical superior, driving games and simulation, action learning, outdoor techniques.*

We classify those methods in: initial and continuous due to the fact that we definitively have to identify which kind of methods we will use, this based on how much is the individual already trained, and which is his purpose within the company: a systematic consolidation of the knowledge or the qualification in a executive function. In our case, we are going to the second techniques, the continue formation one, due to the fact that we talk about the promotion within the company and so far the access to a `C` level.

VI. Tacit Knowledge A Way to Reach The `C` Level?

The dimension of tacit knowledge it-s based on the premise that: we know more than we can tell, these know being based on intangible factors as: beliefs, perspectives or values and suffering of the need to be quantified. The tacit knowledge needs to be captured from individuals, codified, transformed in explicit knowledge and managed, this is the duty of knowledge practitioners, knowledge engineers, knowledge officers and the environment where this take place is overcalled knowledge creating crew by Nonaka, and is referring to all the individuals engaged in knowledge creation within the company (Nonaka, 1995).

Table 14: Knowledge Creating Crew

Knowledge practitioners	⟹	Front-line employees and line managers
Knowledge engineers	⟹	Middle managers
Knowledge officers	⟹	Top managers
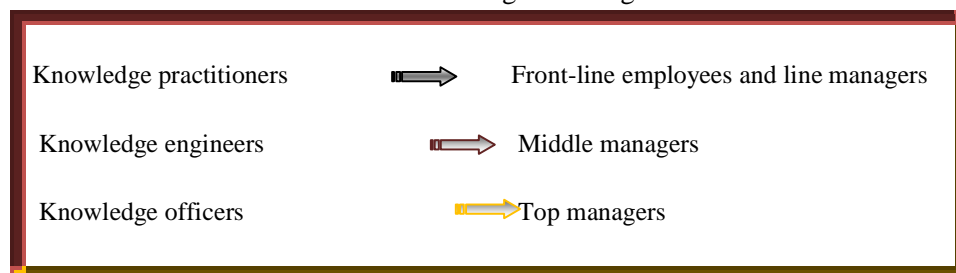
Source – The knowledge – creating company, Nonaka, 1995

Knowledge practitioners (knowledge operators and knowledge specialists) or front line employees are the one of whose responsibility is to accumulate and generate

explicit and tacit knowledge they use the hands but also the heads, on the other hand the second level represented by knowledge engineers is responsible with the conversion from tacit to explicit and conversely, thirdly the knowledge officers are responsible for managing this process of knowledge creation. Those three categories of individuals from the crew are the one that use the hands and the head, they are not *symbolic analysts* as Reich (1991) mentioned and use this term for people that use their heads instead of hands.

Since we designed the present paper, the core idea was concentrating in underlining the importance of tacit knowledge on the formation of a front line employee or a middle manager to reach the `C` level in an economical entity, or in another words, when we talk about a creating crew, the implication of tacit dimension in the ascension from the knowledge practitioners or knowledge engineers rank to the knowledge officers rank.

From our point of view the tacit dimension of knowledge has a relevant impact on the track to access a function in the `C` level in a business organization. We try to underline the indissoluble implication that the tacit knowledge have in the training to reach the executive level. In pointing our final separation we will use as terminology for business organization the crew of creating knowledge because this is the goal of an organization, to create knowledge and for the first line employee we go for knowledge practitioners, the middle managers will be called knowledge engineers, and the top managers we will consider as knowledge officers. This is as we expose above the terminology used by Nonaka.

Taking everything into account we try to expose the main implications that we found to be relevant of the tacit knowledge in the training demarche:

- the tacit knowledge that the knowledge practitioners accumulate and generate within the interviews they take or questionnaires they administer represents a way that they are trained within the function they have in the company, more than this, the responses are analyzed using methodology.

- knowledge specialists try to quantify the customer needs that are almost all of the time tacit and after, the process of creation is continued by knowledge engineers, that make the conversion from tacit to explicit, and from our point of view, later when they will meet the situation of temporary replacement of the superior (knowledge officer) as a method of training, they will know how to front the situation and which decision to take regarding the efforts that need to be support and developed.

- they learn from observation - they observe as much as they can, and they observe tacit behavior as mimics, talent or cleverly, or experiences, this being another way to be trained in qualifying and promoting to an executive function, so here it appears again the implications of the tacit dimension of the knowledge creation.

- the narrative stories that comes from customers or from the experience shared by officers, or researchers in the domain is another way to be trained under the premise of tacit dimension, the practitioners or engineers take what they feel and think is good for them, and when they will have an action learning they can use the achievement that take place during the time; the narrative stories improves the organizational learning and are representing in the same time a valuable way to codify and transmit tacit knowledge

- interviewing experts that are working within the company, but are close to retirement is another way of capture the knowledge and can be truly useful when are developed driving games and simulations (training methods), situation in which a knowledge officer will be replaced by an knowledge practitioner or engineer.

VII. Conclusions

Considering all the parts that circumscribe the present paper we can affirm that to sum up into the implications underlined above it was not a easy task but we hope that we succeed to do this in a way in which the reader can easily understand it. As it could be observed throughout the present work, the impact that the tacit dimension of the knowledge have in the training and formation of the employees to reach the executive level, it`s a very important one, that rarely cannot be quantified. The employees take face with some situation that are different from an individual to another, from the way that they are perceived, understood or transmit. So we couldn't underline this implication to each category of employees going to the detail existing once with the organizational culture, but we hope that in the close future we will go more deeply. It has to be understood the fact that this tacit dimension of the knowledge has an impact to the daily life of each individual, and mostly in a knowledge community, a place where people discover, use or manipulate knowledge and of course interact with the other individual that are making the same. What we try to achieve it was also the fact that there is a difference between workers that use only the hands to produce things comparing with the fact that exist people who only use the heads to produce ideas and knowledge and the

third category is the one that combine both and actually this is what is happening in a knowledge organization. In this way, in which the employees use the hands and the heads, the implication of the tacit dimension, is definitively growing, and our examples are going to this kind of individuals. The composition of the knowledge creating crew given by Nonaka it was helpful to can accomplish our main objective even, of course, all the standpoints of the researchers in the field have a delightful contribution to what today can be defined as knowledge creation.

To sum up we can affirm that we want to have the opportunity to develop our work and research in this field of study and as well to can achieve during the time an experience that can lead us to the point of knowledge engineers or even, better, knowledge officers.

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CODE OF ETHICS – TOOL IN THE DEVELOPMENT OF A FAVORABLE CLIMATE ACCOUNTING PROFESSION

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Abstract

Code of Ethics is a formal organization through which it declares its values and principles in social issues and defines its responsibility towards stakeholders and behavior they expect from their employees. The aim is to communicate the code of ethics are standards of the organization, namely to guide present and future behavior and actions in different situations makes them clear objectives, norms and values that support them and who is responsible.

National Code of Ethics for Professional Accountants of Romania establishes rules of conduct for professional accountants and formulates the basic principles to be observed by them in order to achieve common goals. Professional accountant pursue his professional activities under the rules of conduct laid down by the Code of Professional Ethics and Compliance national and international regulations.

Keyword: coding, the accounting profession, code of ethics, regulation, moral values.

JEL Classification: M41, M49

I. Introduction

The need for coding, the transition from regulation to regulation spontaneous behavior formal official is ever present, especially once the postmodern uncertainty on grounds of moral assessment, but with increasing number of employees and the annual

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increase business. Code, described as ethical, moral, ethics or good conduct is a written reference to values, norms and behaviors that employees of large corporations should or shouldn't follow.

A definition of the ethical code accepted by specialists Englishmen, Americans, Germans, Japanese, and French ones, can be: code of ethics is a written document that states and lists the values, norms and ways of doing that now, firm or company wants to see them applied both inside and outside-in. Incentive (with the dominant cultural) coercive (with a dominant disciplinary), the code is meant to attract the attention of people in the organization and assembly of stakeholders (in production, sales, business), the fact that economic performance is not obtain at any price, the goal doesn't always justify the means, it is an instrument for the regulation of relations between the company seen as an entity, as an institution that is governed by formal and informal rules that include staff and stakeholders. (Ballet, Bry, 2001)

II. Ethical codes - necessity, content, features

Over time they have won two types of codes: some defensive, some offensive. Rationale (why) defensive (Ballet, Bry, 2001) most obvious are:

- self desire;
- the company's current desire to be moral;
- shareholder pressure (ethical funds);
- consumer pressure (fair trade);
- reaction to scandals (financial, environmental, social);
- reaction to the development of a national law, community or international;
- restoring the social climate in a company or enterprise.
  Equally striking are offensive reasons:
- the adoption of a new management;
- improving the reputation of the organization;
- occupied parts market growth;
- the need for a common reference;
- clarify business objectives;
- the decentralization of decision;
- competitive differentiation;

- establishing a loyal clientele;
- staff involvement;
- recruiting full salary;
- guidance and control employee behavior.

Institutionalizing ethics (Snoeyenbos, Jewell, Morals, 1983) in corporations means at least three things, besides constant care to improve the organizational climate and their moral:

- adopting a corporate code of ethics;
- establish a "committee of senior ethical principles";
- training of type of coordination ethical development programs.

A number of authors, both the French and the Anglo-American environment, are of the opinion that "such a code should not be an advertisement appealing or be so general as to be useless" (Snoeyenbos, Jewell, Morals, 1983) code should fix reasonable purposes. Also, the Ethics Committee should be invested with full authority and responsibility, both to communicate decisions based on his code and corporate members, as well as to clarify and interpret the code when certain needs arise, or to facilitate the use of the code in investigating abuse.

Jerome Ballet and Francoise de Bry (1983) said that the presence of ethical codes is determined by the following factors:

- large companies;
- considerable oldness of the organization;
- high risk activity.

The universal plan, there are two dominant types in terms of how the Codes were implemented: by constrain or negotiation. The topics addressed in the Codes are grouped around several major topics: basic principles of organization (values, principles of action etc.), the behavior of employees, relationships with stakeholders (shareholders, customers, suppliers, local communities, government), environment.

It is recognized more frequently the idea that codes developed under the influence of the French spirit are more monist codes, while those belonging to the Anglo-American spirit are preeminent holistic codes, as can be seen in Table no.1.

Table 15 Differences between codes coins and holistic codes

	MONISTAT CODES	HOLISTC CODES
Approach	Culture based on manager Based on enterprise culture	Based on the assessment of stakeholder interests
Method of preparation	Audit of company culture	System Analysis and interests involved interactions
Legitimation	Shared values Community Membership	Recognition of other interests
Exhortations	Conviction manager	External communication
Method	The trend deductive	The trend inductive
Logic	Logic accountability	Logic submission
Source motivations	Memberships enterprise	Disciplinary logic
Control	Self-determined by the value system	Internal or external bureaucratic control
Dissemination	Members enterprise	Interested parties
Strengths	Strong adhesion staff (emotional bounds)	Open system Individual freedom
Weaknesses	Isolation or enterprise increasingly isolated from the surrounding society	The absence of references to a value system, which results in the problem of the legitimacy of interests

Source: Ballet, J., Bry, F. L'entreprise at l'ethique, Edition du Seuil, Paris, 2001, pp.389

Author Jerome Ballet believes that: "In effect the trend and necessity, philosophical and legalistic conception, code of ethics emphasizes the mood of the company. It can become an important management tool when the overall agreement, mutual trust, the example of the President in drafting its visible but should not be considered as a wonder tool that will resolve all conflicts of interest of the organization" (Ballet, Bry, 2001). The main difficulties encountered in the development of ethical codes are shown in Table no.2:

Table 16 Difficulties in development of ethical codes

No.	DIFFICULTIES	MOTIVATIONS
1	Difficulty writing	The codes are vague and empty of meaning
		Codes are an expression of idealism without practical application
		Virtues can't be legislated
		Codes are psychologically unhealthy
2	Motivations which codes are challenged	Codes do not match the real expectations of the organization, but are elaborated to improve the external image of the organization
		Codes are a security measure to simplify the personal decision
		Codes will form the competitive weapon for inefficient organizations
		The development of a code can create an attitude of suspicion from the public who believe that before the organization was not moral.
3	Difficulties of application	Codes can not reduce violent practices in situations of tough competition
		A code of ethics is almost impossible to control

A professional code of ethics is defined as a set of professional ethical principles governing the exercise of professional activities. According to European directives, all ethic codes should include both commercial communication modalities relating to regulated professions, and rules on the conditions for the exercise of professional activities aiming to ensure that ethical rules especially independence, impartiality and professional secrecy.

III. The Role Code of Ethics in the accounting profession

National Code of ethics of the accounting profession in Romania establishes rules of conduct and formulates basic principles to be followed in order to achieve common goals. Professional accountants in Romania operate in different entities and branches of national economy as self - employed or employed; the basic purpose of the Code must

always be respected. Sometimes the duty of members to their profession and to society may seem to be in conflict with their immediate interest or their duty of loyalty to the employer. Based on this framework, it is the duty of the member bodies to develop ethical requirements for their members to ensure the highest quality work and maintain public confidence in the accounting profession.

A professional code of ethics is defined as a set of professional ethical principles governing the exercise of professional activities. According to European directives, code of ethics should include both commercial communication modalities relating to regulated professions, and rules on the conditions for the exercise of professional activities aiming to ensure that ethical rules especially independence, impartiality and professional secrecy.

Code of Ethics for Professional Accountants has a dual role:

- give authority to the services provided by accounting professionals, recipients of services provided by accounting professionals are sure that these services are performed by professionals that have certain quality standards and respond to their benefits;

- protects accounting professionals in face of economic crime and other negative phenomena in the economy such as money laundering, financing of terrorism, fraud, corruption etc.

To defend the honor, independence and authority of professional accountants, Code of Ethics proposes to accomplish the following essential skills:

- knowledge, competence and consciousness;
- independence of mind and disregard material;
- morality, integrity and dignity.

It also requires each professional accountant to make the effort required to develop such qualities as:

- continually develop their culture, not only professional, but also general knowledge, able to strengthen its judgment;
- give each transaction and situations examined all the attention and time required to substantiate a personal opinion before making proposals;
- to express their opinion without fear to desire, even hidden, the man who consult and decide honestly, bluntly expressing and, if necessary, appropriate reserves on the value assumptions and conclusions;

- not never given the opportunity to learn in the situation of not being able to exercise freedom of thought or being subjected to encroachment of his duties;
- consider that independence must find its full expression in the profession and protecting them with respect full legal provisions.

The Code sets out the conceptual framework that requires professional accountant to identify evaluate and address threats to compliance with the fundamental principles. Conceptual framework approach assists professional accountants to comply with the ethics of this Code and to take responsibility to work in the public interest. Code variants adapted to different circumstances that generate threats to compliance with the fundamental principles that can impede a professional accountant from concluding that a situation is permitted if it is not expressly prohibited.

The Code of Ethics provides that a professional accountant may inadvertently violate a provision of it, but it is possible that the nature and extent of the problem does not compromise compliance with the fundamental principles provided, once discovered, violation is corrected promptly and necessary safeguards are applied.

Threats can be generated from a wide range of relationships and circumstances. When a relationship or circumstance creates a threat could compromise, or be deemed to compromise the fundamental principles of compliance accountant. Threats fall into one or more of the following:

a) self - interest threat - the threat that a financial or other interest to improperly influence the judgment or conduct of the professional accountant;

b) the threat of self-examination - the threat that a professional accountant not properly reassess the results of a previous judgment or a service provided by the professional accountant or other person within the professional accounting firm or employing organization, which will the accountant to prepare a judgment as part of current service provision;

c) favoring threat - the threat that a professional accountant promotes a position of a client or employer to the point where the professional accountant's objectivity is compromised;

d) familiarity threat - the threat that due to a too long or too tight relationship with a client or an employer, a professional accountant to be too lenient with their interests or acceptance of their work;

e) intimidation threat - the threat as a professional accountant to be deterred from acting objectively because of actual or perceived pressures, including attempts to exercise undue influence over the professional accountant.

IV. Conclusions

Code of Ethics shall include, to the specifics of each profession, so the communications trade on regulated professions, and rules concerning the conditions for the exercise of professional activities aiming to ensure that ethical rules especially independence, impartiality and professional secrecy.

Establish ethical principles and rules and monitor their understanding and the observance of accounting professionals is one of the roles of professional bodies. Therefore it is necessary that each professional body to have the ability and resources to establish a system of investigation and sanctions for non-compliance with professional and ethical standards.

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THE DENATIONALIZATION OF THE BANKS – BASIC OBJECTIVE OF THE RESTRUCTURING OF THE BANKING SYSTEM IN THE CENTRAL AND SOUTH EASTERN EUROPE (CSE) COUNTRIES

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Abstract

In this study we shall try to elaborate a comparative analysis regarding the policies of the process of banking denationalization used in five Central and South Eastern Europe (CSEE) countries (Poland, Slovakia, Hungary, Romania and Bulgaria) during the transition period, as they had a great influence on the increasing domination of the foreign capital banks and we shall offer a complete image of the denationalization process that tended in the last years to sell all these banks to foreign investors. We also intend to make a comparison between the features and the structure of the banking system in the above mentioned CSEE countries and we will show that in the last years, each of the five counties noticed an increasing domination of the foreign capital banks, numerically but also from the point of view of the market share.

Keyword: banking system, foreign banks, methods of the denationalization, banking reform

JEL Classification: E50, G21

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I. Introduction

The denationalization of the state-owned capital banks represents a crucial element of transition of the CSEE countries, because the foreign ownership is prerequisite for an efficient transition of the banking sector.

The structures of the banking sector of the five CSEE countries, before the denationalization, were mainly being controlled by the big national banks, state-owned banks. In the banking sectors of the centralized economies, the domestic banks owned the central as well as the commercial banking activity (the sole banking system). The national banks together with the specialized banks were just passive institutions, operating the stake distribution, following the orders of the headquarters under the absolute control of the state. Subsequently, the structure of the ownership of the banking sector suffered a few changes, as a result of using various methods of denationalization. The main methods are as follows: *the voucher method, the initial public offers (IPO) and selling to foreign financial investors (SFFI).*

II. A comparative analysis of the policies of banking denationalization used by the CSEE countries

The analysis of the methods of the denationalization indicates main changes round 1997. The period before 1997 has been named „first stage of denationalization” and the period after 1998 „the second stage of denationalization”. In the first stage it were used different methods in each of the country: the SFFI method in Hungary, the IPO method in Poland and the voucher method in Republic of Slovakia. Within the second stage of the denationalization all the countries adopted the same SFFI method [1]. The state lost mainly all his capital stakes and those received in the first stage of the denationalization were sold in the second stage by SFFI method.

There were different results of the denationalization, mainly because of the method used in the process. The voucher denationalization (based on vouchers) that was used initially in the Republic of Slovakia led to a quick change of the ownership, thus his economy began to be dominated 70 percentage by the private ownership in 1996. Although, the productivity and the competitiveness of the newly denationalized companies remained unchanged. The result of his denationalization, also named „the denationalization without restructuring” led to a weak performance of the Czech and

Slovak companies, especially of the banks. In Poland and Hungary, on the other hand, the denationalization was mainly preceded by restructuring, as a result of selling the state ownership to strategic investors [2].

Some countries quickly started to denationalize the state-owned commercial banks and thus, granted access to foreign banks on the domestic market at the beginning of the transition. Although, the internal legislation and the competent institutions failed to establish a smooth operation of the market economy and did not automatically lead to a proper banking performance. Consequently, some new banks were used to misdirect the loans especially to the owners of the banks, and most of them were companies that acted as „pocket banks" for their owners. The entrance requirements for new banks was initially very permissive because they thought a wrong idea that their easy access on the domestic market shall accordingly challenge the competition. The proliferation of the new banks turned to be an additional burden on an underdeveloped legislative structure [3].

The process of general denationalization was considerably different in the previous mentioned countries. Until 1995, in Hungary the foreign financial institutions owned 42 percentage of the Hungarian banking stakes, mostly due to the denationalization of two important state-owned commercial banks. The next biggest percentage of the first transition decade belonged to Slovakia, a country that granted a fast access to the foreign banks on the domestic market. On the other hand, the Czech Republic and Poland limited the number of authorizations given to foreign investors and allowed them to have only a minority authority in their banking sector. These governments mainly adopted a protective strategy and considered more significant the potential of their novice developing industry that could probably sustain at some point the domestic banks in order to become strong enough to be able to face the competition [4].

In Poland, the first banking denationalization used a combination of domestic initial public offers (IPO) and selling offers of the non-majority stake to a strategic foreign investor. As the Polish stock exchange was not a great success, this method encountered a series of problems regarding the transaction of domestic initial public offers (IPO) and thus their price was hardly established and the accusations of price fixing led to a political fall of one of the governments. The new government developed a new programme of banking consolidation, as an alternative approach to denationalization and tried to make merging and acquisitions of banks, followed by disagreements of course. In one of the

cases, the attempt of including in the programme a bank that was already partially denationalized (HBP) caused a big public disorder.

This significantly delayed the denationalization and almost a quarter of the Polish banking stakes had been further held by the state until 2005. Most of the programmes of banking denationalization have been later operated in Romania, Bulgaria, Croatia, Czech Republic and this involved a price negotiation between the government and a unique foreign bank, sometimes after a public auction.

The policies adopted in the denationalization, either in establishing subsidiaries of the foreign banks inside the countries or in acquiring stakes within the state-owned commercial banks, were also very different in the previous mentioned countries.

In some countries, the entrance policies encouraged the foreign ownership (by giving financial advantages in setting up the subsidiaries (Greenfield banks)), in other countries, the granting access was restricted and the foreign banks had only a minority ownership within the state-owned commercial banks or participated to the solving process of the issues encountered by the small domestic banks.

First country in the Central Eastern Europe that granted access to foreign strategic investors was Hungary. The foreign investors had until 1994 a minority ownership in the Hungarian banks. Although, the Hungarian banking sector encountered a few problems and suffered a budget restraint, which led to some continuing operations of banking recapitalization from 1993 to 1994. In order to improve the corporate governing of the banks and to cut the fiscal costs of recapitalization, they began in 1994 a denationalization process of the banks by selling them to strategic foreign investors.

The Balkan countries, such as Bulgaria and Romania, had been reluctant to denationalize their banks and sell them to strategic foreign investors and only the banking crisis determined them to reconsider their strategies. Bulgaria had experienced a banking crisis in 1996-1997 and Romania in 1998-1999. Bulgaria registered a credit boom in, but until 1995 almost 75 percentage of the bank loans were considered non-performing loans. In this situation, the Bulgarian Central Bank supplied with banking liquidities and thus led to a real currency and banking crisis. Thereby, in 1997, the Bulgarian authorities adopted the denationalization process and the biggest banks were sold to strategic foreign investors. Before the crisis, the biggest Romanian state-owned banks had been oriented towards an inefficient crediting of the state-owned companies, and thus they were automatically financed by the Romanian Central Bank. When the Central Bank decided to

stop this practice, a lot of big banks encountered many problems. Therefore, after an expensive recapitalization, the Romanian authorities started the denationalization process, with an active participation of the foreign investors. Poland did not support the denationalization of the banking system and did not accept its big financial costs. From 1992 to 1998, the authorizing of the foreign banks was limited by a main requirement: a foreign bank could only be authorized after accepting to help a Polish bank in difficulties. The denationalization process started in 1993. Even if the foreign investors were granted access to hold stakes, they were limited to minority ownership. The restrictions for the foreign banks were excluded in 1998, after adopting a new law in the banking services domain, adjusted to the EU legislation. The concept of denationalization had changed and the government started to look for foreign banks in order to earn big income from the denationalization. The banking reform started even later in the Republic of Slovakia. The Slovak banks accumulated many non-performing loans because of the political interferences in the crediting procedures. Although, beginning with 1999, the fast reform started to recapitalize the Slovak big national banks and sold them to strategic foreign investors [5].

The foreign ownership in the banking sector had been initially seen by most of the governments as an instrument of adopting the banking survey and training the human capital hired on the domestic market of the banking sector.

In most of the countries in transition, the state ownership disappeared in 2005. Until 2005, the medium rate of the stakes owned by the foreign capital banks was 84.5 percentage in the Central Eastern Europe and 61.9 percentage in the South Eastern Europe countries. Table no. 1 presents the percentage of the stakes owned by the state-owned banks and foreign capital banks, as well as the mediation rank for 1999 and 2005.

Table 17- The structure of the banking sector in CSEE countries following the form of ownership on 1999 and 2005

Country	Owners- % of stakes		Mediation rank		BERD Index
	State	**Foreign investors**	**Deposits/GNP**	**Loans/GNP**	
1999					
Bulgaria	50,5	44,7	21,3	10,7	2,7(+)
Polond	23,9	69,5	35,4	27,1	3,3 (+)

Romania	50,3	47,8	20,5	10,6	2,7 (-)(
Slovakia	50,7	24,6	57,1	48,4	2,7 (0)(
Hungary	7,8	65,3	66,1	44,6	3,3(+)
2005					
Bulgaria	1,7	72,8	36,0	34,9	3,7(+)
Poland	21,5	74,2	34,6	27,4	3,7(+)
Romania	6,5	59,2	26,1	20,9	3,0(+)
Slovakia	1,1	97,3	47,7	32,5	3,7(+)
Hungary	7,0	84,5	40,1	44,8	4,0(0)

Source: processing of, Bonin, J.,Hasan, I., Wachte, P., Banking in Transition Countries Oxford
Handbook of Banking Forthcoming June 2008, pp. 17

According to Table no. 1, the percentage of the stakes owned by the foreign banks was below 50 percentage in 1999 in all the mentioned countries, except Poland and Hungary that registered percentages over 50%. The three Central Eastern Europe countries, registered an average of the state owned stakes of 27.1 percentage in 2000 and 5.9 percentage five years later, and the other two South Eastern Europe countries the average was 45.6 percentage in 2000 and 8.0 percentage in 2005 [5].

The percentage of the stakes owned by the foreign banks in five Central and South Eastern Europe (CSEE) countries was the biggest one in 2005. Slovakia registered a percentage over 90 and Hungary registered a percentage over 84 in 2005. This percentage was although smaller in Romania, 59.2 percentage in 2005.

Three years later the foreign ownership prevailed in all he banking systems of the mentioned countries in proportion of 80 percentage (Bulgaria, Poland, Romania and Hungary) and in almost 100 percentage in Slovakia (see table no. 2 and chart no. 1).

Table 2 Characteristics of the banking sector in CSEE countries in 2008

Country	Owners- % of stakes		Owners- % of stakes			BERD Index 2009
	State	Foreign investors	Loans	Loans for population	Mortgage loans	
Bulgaria	2,0	83,9	74,5	26,0	12,4	3,7(0)
Polond	18,3	76,5	55,0	27,0	15,o	3,7(0)
Romania	5,6	87,7	38,5	18,8	3,8	3,3(+)
Slovakia	0,8	99,2	44,7	18,5	5,4	3,7(0)
Hungary	3,5	84,0	67,6	27,4	21,5	4,0(0)

Source: processing of Report of transition BERD, 2009, pp. 154-211

The structure of the banking system related to ownerships in CSEE countries in 2008 can be better noticed in the following chart:
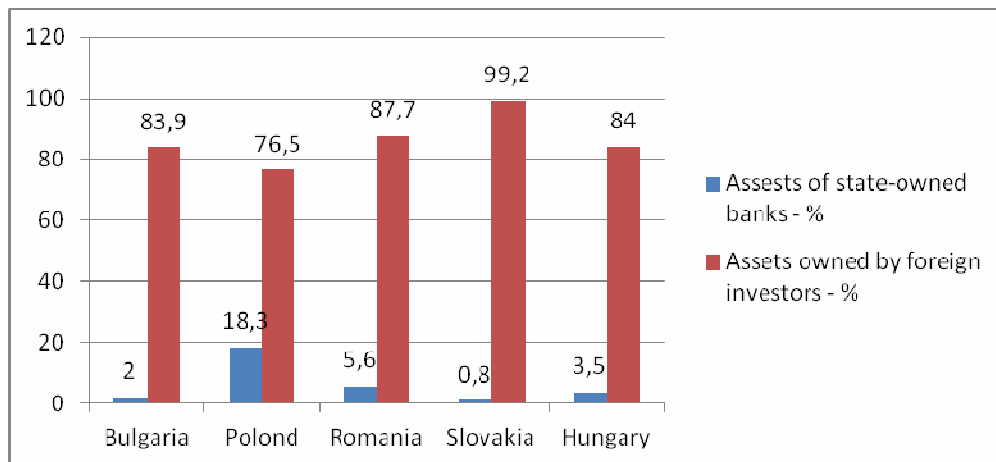

Chart no. 1 The structure of the banking system related to ownerships in CSEE countries in 2008
Source: elaborated by the author based on the information from Report of transition BERD, 2009, pp. 154-211

The banking crisis that marked the economies of the above mentioned countries had seriously influenced the region and accelerated the process of denationalization and the decline of the state ownership in the banking system [6]. In Slovakia, the state ownership decreased from 50 percentage in 1999 to 1.1 percentage in 2005 and 0.8 percentage in 2008. The percentage of the balance assets of the state-owned banks in Hungary changed a little from 1999, because almost all the banks were entirely denationalized in 1990. Until the end of 2005, the average rate of the state-owned banks was less than 8 percentage in almost all the countries, except Poland, where the state had still 18.3 percentage of the banking assets.

Analysing the structure of the banking sector of the five countries during the initial period of transition, we shall notice that despite a fast increase of the foreign banks, the state still owns the control over the banking system. The number of banks owned by the foreign investors continued to increase. Table no. 3 indicates that at the end of 2001 the banks owned by foreign investors increased to one quarter in Hungary and two quarters in the other countries.

Table 3. Evolution of the banks owned by foreign investors in the CSEE countries (1991-2009)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2008	2009
Bulgaria											
Total number of banks	75	41	44	34	35	34	35	34	29	30	30
Number of foreign banks	0	0	4	9	19	26	25	23	21	22	n.a
Polond											
Total number of banks	74	87	81	83	77	72	58	61	64	70	67
Number of foreign banks	6	10	18	29	39	48	46	50	54	60	n.a
Romania											
Total number of banks	-	-	24	33	34	41	39	39	41	42	41

Number of foreign banks	-	-	6	13	19	32	21	24	26	27	n.a
Slovakia											
Total number of banks	-	18	25	29	25	21	21	23	26	26	26
Number of foreign banks	-	3	9	13	11	13	16	16	15	16	n.a
Hungary											
Total number of banks	35	40	43	45	43	41	38	38	40	39	35
Number of foreign banks	8	16	21	30	29	31	29	27	27	25	n.a

Source: processing of Report of transition BERD, 2009, pp. 154-211, Raiffeisen Research 2010, estimations of the author

Thus, we can say that all banking sectors of the previously mentioned countries are defined by a fast appearance and domination of the foreign capital, following the process of denationalization. The information presented in the above table shows that the banking sector of the CSEE countries is currently dominated by foreign investors.

III. The effects of the entrance of the foreign banks on the domestic banking sectors of the CSEE countries

In some countries, the position of the foreign capital banks is overwhelming accessing thus the banking markets of CSEE countries during a crisis or right after a crisis, when the stability has been established. The presence of the foreign investors (in terms of company assets) is proved by: Austrian, Italians, Belgium, Germans and French. The Greek investors have as well a good position especially in South Eastern Europe.

The banking sectors in the CSEE countries are defined by a high number of foreign banks. In Romania, Bulgaria and Slovakia, the foreign banks controls over 80 percentage of the entire banking capital.
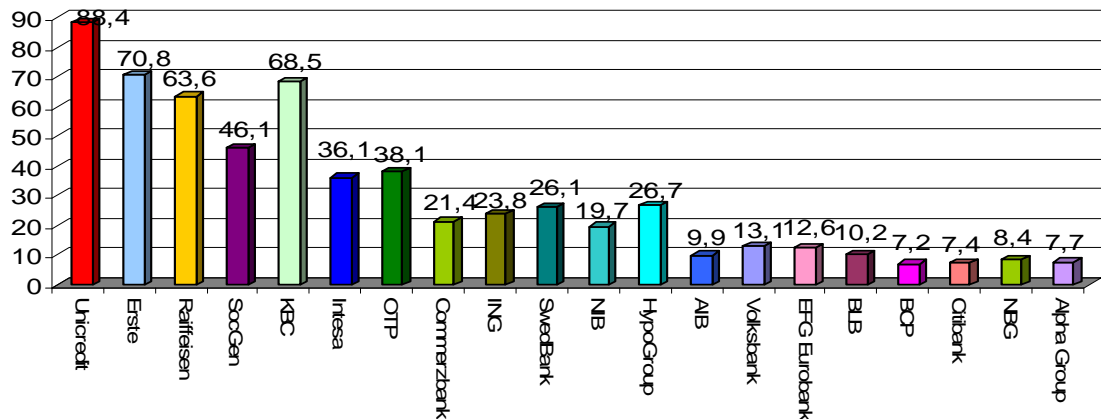
Chart no. 2 Total assets of the international banks in CSEE countries in 2009 - billions Euro

Source: processing of, CEE Banking sector Report, Raiffeisen Zentralbank Osterreich AG Vienna, 2010, pp. 51.

The market share of the foreign capital banks varies from 62.9 percentage in Poland to 94.3 percentage in Slovakia see table no. 4 and chart no. 2).

Table no. 4. Market share of the foreign banks in the CSEE countries (1995-2009)

Country	1995	1996	1997	1998	1999	2000	2001
Bulgaria	n.a	n.a	34,8	43,4	46,6	48,1	66,7
Polond	19,24	29,79	41,52	49,7	56,0	56,6	61,3
Romania	14,11	12,84	24,46	35	41,75	53,8	60,6
Slovakia	n.a	39,6	39,2	37,3	24,6	28,1	60,0
Hungary	35,6	45,9	61,2	60,4	62,1	64,0	61,0
	2002	**2003**	**2005**	**2006**	**2007**	**2008**	**2009**
Bulgaria	66,6	76,3	80,0	80,1	82,3	86,3	86,6
Polond	63,2	63,3	69,9	66,6	66,6	67,0	62,9
Romania	64,9	66,3	62,2	88,6	87,7	88,2	85,3

| Slovakia | 85,3 | 88,9 | 97,3 | 98,9 | 97,0 | 96,3 | 94,3 |
| Hungary | 58,6 | 81,9 | 84,5 | 81,5 | 78,4 | 72,7 | 70,2 |

Source: processing of Havrylchyk, O., E.,Jurzyk, *2006, CEE Banking sector Raport, Raiffeisen Zentralbank Osterreich AG Vienna, 2010, pp. 51,* estimations of the author

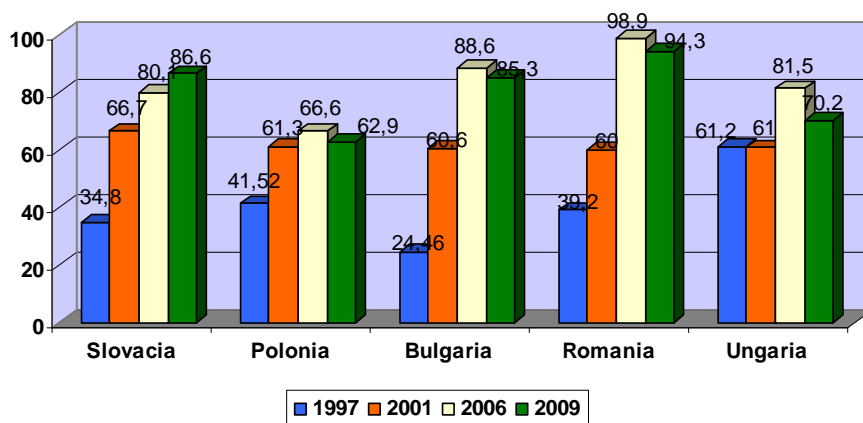In chart no. 2 we can notice the market share of the banks with major foreign capital in the period 2000-2009.

Chart no. 2 **Market share of the foreign banks in the CSEE countries (% of the assets)**

Source: *Elaborated by the author based on Havrylchyk, O., E.,Jurzyk, Op.cit., 2006, CEE Banking sector Report, Raiffeisen Zentralbank Osterreich AG Vienna, September, 2010, p. 51*

The increasing number of the foreign banks in the CSEE countries determined also the increase of the concentration rate of the banking market. The barriers of entrance were very often loosened only after a crisis and stimulated the necessity of recapitalizing and establishing a smooth operation of the banking system, as the case of Baltic and Balkan countries after the crisis in Russia, Argentina and the tequila crisis in Mexico [7].

IV. The benefits and costs of the entrance of the foreign capital banks over the financial-banking systems

The benefits and the costs of the entrance of the foreign capital banks over the financial-banking systems and domestic economies are intensely studied in the specialized literature. The main benefits are as follows: - the entrance of the foreign capital banks increases the efficiency of the domestic banking sector, because the increasing competition reduces the costs and raises the profits; - improves the process of granting loans to the people due to an elaborated credit risk evaluation; - develops a better internal legislation regarding the banking survey that will increase the extent of transparency; - the foreign capital banks are expected to give more stable financing sources and thus the internal financial markets shall be less vulnerable to internal crisis; the foreign capital banks can reduce the costs associated with the recapitalization and structuring of the banking sector in the post-crisis period.

The major costs associated to the entrance of the foreign capital banks are as follows: - in the event that the market share of the domestic banks decreases together with the entrance of the foreign capital banks, they will need a financial incentive in order to be able to assume bigger risks; - shall finance the unsafe sectors; - the presence of the foreign capital banks increases the systemic risk of appearing the contagion effect; because the foreign capital banks have different priorities, their crediting type tends to ignore the priorities of the national economy.

Claessens, Demirguc-Kunt si Huizinga (1998) [8] showed that the presence of the foreign capital banks may stimulate the competition, improve the process of granting loans and gving access to wold-wide markets. But still exists the costs associated to the entrance of the foreign capital banks, costs that lead to an increasing systemic risk, due to the competition and the need of banks to maintain their market share (Hellmann, Murdock and Stiglitz, 2000) [9].

Claessens, Demirguc-Kunt şi Huizinga (1998) observed the effects of the entrance of the foreign capital banks over the national banking sectors. They showed that the foreign capital banks registered bigger profitability rates and interests margins in the developing countries, and the other way round in the developed countries. The conclusion is that once the foreign capital banks embrace the domestic markets, the profitability and general administrative expenses of the domestic banks are reduced [8].

Demirguc-Kunt şi Huizinga (1999) presents similar results. They show that the foreign capital banks have generally bigger profits than the domestic banks in the developing countries [8].

Agenor (2001) underlines the fact that foreign investors are not familiar to the domestic issues of the countries they are investing into, and tends to quickly retreat when encountering a problem [10]. This lead often to crisis on the domestic financial markets.

The foreign ownership may have a stabilizer effect over the banking markets of the CSEE countries for the following reasons: first of all, one of the most important advantages is that the foreign capital banks have a lower degree of sensitivity towards the requirements of the host country, and secondly the access to world-wide markets and the international experience in domain. In the same time the foreign ownership may a destabilizing effect on the banking markets, because it can be significantly affected by the changes and strategies of the mother-company. Eventually, there is a fear that the foreign capital banks may take the best clients and the domestic banks remain with the most unsafe clients [11].

A recent study [12] elaborated by Olena Havrylchyk (2010) analyses the impact of the presence of foreign capital banks in Central and Eastern Europe (CEE) regarding the rate of entrance and exit of the companies, their size and the probability of surviving in the first years, but also the impact of the foreign capital banks on the crediting offer for Small and Medium sized Companies (SMC) and ascertains that the acquisition of banks on the domestic market by the foreign investors led to a lower rate of setting up or entering small sized companies, while it led to an increasing exit of the companies. In the same time, the entrance of the foreign capital banks, as Greenfield, stimulated the setting up but also the exit of the companies. Even if the foreign capital banks stimulated the improvement of the crediting offer in the CSEE countries, not all the debtors benefited from. Some of the studies indicate that the foreign capital banks grant fewer loans to small sized companies, thus being concerned in giving loans to big sized companies (Degryse, Havrylchhyk, Jurzyk & Kozak (2009)). Olena Havrylchyk illustrates, through her study, that the Small and Medium sized Companies are financially supported mainly by the domestic banks foreign capital banks. The foreign capital banks only increased the competitive pressure on the increasing crediting offer of the small and medium sized companies.

V. Conclusions

As following this study, we ascertain that between all the denationalization policies used by each country, the denationalization concentrated on strategic foreign investors was by far the most successful of all the other strategies, because has stimulated the process of modernization of the banking sectors in a pretty short period of time. In the last years almost all the countries adopted the SFFI method of denationalization.

We noticed, as well, that all the CSEE countries encountered delays in the process of denationalization, mainly because of the reluctant governmental policy. The process of d denationalization in the CSEE countries was mostly defined by the entrance of the foreign capital banks on the internal banking market, either by acquiring the domestic banks (private or public) or through setting up subsidiaries and branches. Nevertheless, we noticed that the denationalization of the state-owned commercial banks is substantially finalized in the CSEE countries. In all of the countries, the success of the restructuring and denationalizing the financial sector, depended on the creation of a legislative and institutional infrastructure, efficient for sustaining an appropriate ruling policy.

The entrance of the foreign capital banks was of great importance, because has brought us modern techniques of risk management and financial management, such as know-how.

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MOMENTS IN THE MODERNISATION OF PUBLIC ACCOUNTING IN ROMANIA. A CASE STUDY REGARDING THE REVALUATION AND ARMONIZATION OF FIXED ASSETS

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Abstract

The introduction of accrual accounting in the public sector is a recent phenomenon and a worldwide subject of debate. In this article, we presented the steps taken by Romania in adopting accrual accounting, first as a candidate country for European Union accession and later as a member state. Furthermore, we studied how the transition to accrual accounting led to a better management of the assets of public institution while choosing, as a case study, the revaluation and amortization of fixed assets.
The scientific approach of this research paper consists of two parts: in the first part, we presented a gradual historical evolution of public accounting, combined with Romania's efforts in adopting accrual accounting. In the second part, we showed, in the form of a case study, the advantages of introducing amortization and revaluation of fixed assets as a first step in the strengthening of accrual accounting.

Keyword: accrual accounting, cash accounting, revaluation, amortization

JEL Classification: M41

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I. Introduction

Currently, the global public sector utilises two basic methods in determining when transactions or events are recorded in the financial statements: cash accounting (traditional method) and accrual accounting (modern method) (Tiron Tudor şi Fătăcinean, 2006). Cash accounting, which is better understood by accounting practitioners, recognises transactions and events only when cash is received or paid while accrual accounting recognises transactions and events when they occur, regardless of when cash is paid or received (Ştefănescu, Ţurlea, 2011). Accrual accounting, which has been shown to be the best in offering relevant and reliable information, is a component of the concept called New Public Management (NPM). This concept is supported by major international bodies: the International Monetary Fund, the World Bank, the European Bank, OECD and it aims to blur the boundaries between the public and the private sectors.

Internationally, Chile was the first country to introduce accrual accounting in the 70s, followed by New Zealand, USA (partially), Canada, as well as the member states of the European Union (Wynne, 2004). In fact, the European Union recommends the introduction of accrual accounting to all the countries wishing to apply for membership.

Another supporter of accrual accounting is IFAC. Established in 1977, the International Federation of Accountants (IFAC) (the global organization for the accountancy profession) has the mission of serving "the public interest, contributing to the development of high-quality standards and guidance, facilitating the adoption and implementation of high-quality standards and guidance, contributing to the development of strong professional accountancy organizations and accounting firms and to high-quality practices by professional accountants, promoting the value of professional accountants worldwide and speaking out on public interest issues."

Eighteen years later, in 1995, IFAC created IPSASB (International Public Sector Accounting Standards Board). The purpose of establishing this organization was the development of accounting standards for the public sector which would have the following characteristics: to ensure the need for a common language on a world-wide level, to facilitate the work of those who prepare, audit or utilise the financial statements, to bridge the gap between public and private entities, to help ensure a common basis for accounting and reporting in all countries, to help reduce costs because accountants,

auditors, financial analysts, investors and regulators will no longer be forced to convert or to reconcile the financial statements of a set of standards to another set of standards.

The IPSAS standards (a total of 32), inspired by the International Financial Reporting Standards (IFRS), are intended for public sector entities other than state economic entities. At present, no country has fully implemented IPSAS since IPSASB cannot enforce the adoption of the international accounting standards for the public sector. Efforts in this respect have been made by France, Germany, UK and Australia.

On December 17, 2002, the European Union decided that 2005 should mark the transition from cash accounting to accrual accounting in order to present information which is credible, transparent and comparable in the public sector.

Romania, eager to join the EU, faced this challenge and started the transition from cash accounting to accrual accounting. Thus, one of the conditions of accession (introduced in chapter 11 "Economic and Monetary Union" of the Position Document) was the convergence of public accounting with the European Regulations, the International Public Sector Accounting Standards (Alecu, 2010) and the reporting of public finances data in accordance with the European System of Accounts (ESA 95).

Convergence implies the taking over, on a national level, of the IPSAS spirit, its conceptual framework and the adoption of some of the accounting treatments specified in the international standards (Ilie, Alecu, 2011). Romania opted for the indirect method of IPSAS implementation, which means that the national accounting norms are developed based on the provisions of international standards.The primary cause of choosing this method was the fact that most public accountants were unaware of the international accounting standards for this sector. More specifically, a study made by Tiron A. and Fătăcean Gh. shows that 73% of the public sector accountants have no experience in applying accrual accounting while the remaining 27% are knowledgeable in the field either from school or from having worked in the private sector.

At the basis of the convergence between Romanian public institutions accounting with IPSAS lies the financial statements that aim "to provide information that is useful for decision-making and to demonstrate the accountability of these entities for the resources entrusted to them." Thus, with the implementation of order 1917/2005, public institutions in Romania must prepare financial statements that "offer a true image of the assets, liabilities, financial position (net assets/equity) as well as of the financial performance and equity statement" and that meet the requirements of IPSAS and of the consolidated

Financial Regulation applicable to the general budget of the European Communities no.1605/2002 and European Commission Regulation on detailed rules for implementing the Financial Regulation no.2342/2002, chapter referring to "Presentation of the accounts and accounting":

- Statement of financial position (balance sheet). National norms comply with international recommendations, assets and liabilities are divided into current and non-current and, inside the groups, assets are presented in ascending order according to their liquidity and liabilities in ascending order according to their chargeability;
- Statement of financial performance (profit and loss account). The structure of the profit and loss account respects the minimum requirements by showing revenues and funding according to their nature or source (whether received or not) and the expenses according to their type or purpose (whether paid or not). The main characteristic of the equity statement is represented by employment and not collection or payment;
- Statement of changes in net assets / equity;
- Statement of cash flows grouped by type of activity in: operating, investing and financing activities. However there are still some differences between national standards and IPSAS 2;
- accounting policies and notes to the financial statements;

In addition to IPSAS 1 ("Presentation of Financial Statements"), the public institutions in Romania prepare budget execution accounts. This is due to the fact that the budget is cash-based while financial statements are accrual-based and, according to IPSAS 24 ("Presentation of budget information in financial statements"), when the budget and financial statements are not drawn up in the same system, a separate financial statement must be made.

II. Romanian's efforts in adopting accrual accounting. Phases in the evolution of public accounting in Romania

The purpose of this research is to present the benefits of introducing fixed asset revaluation in the public institutions of Romania but not before presenting briefly the evolution of public accounting.

According to the research made, one can talk about three major periods in the evolution of public accounting in Romania:

✓ *Pre-communist period (1860-1947)*

Public accounting has its origins in the Financial Regulation adopted in 1860, after the union of Moldavia and Walachia. Four years later, in 1864, the Public Accountancy Act is adopted. It regulated the development, adoption and implementation of the state budget in Romania (Alecu, 2010). Later, in 1929, after a period of tax reforms, a new Public Accountancy Act was adopted (Demetrescu, 1972). It contained the following innovations: the introduction of double entry accounting, the 12 months fiscal year instead of 18 months, the preventive financial control, the establishing of the four phases regarding employment, liquidation, authorization, payment, as well as mandatory inventory of public assets.

✓ *Communist period (1948-1989)*

During this period, public accounting was greatly influenced by the Sovietic Union and answered the needs of a planned economy (Calu, 2005). Cash accounting presented advantages such as: ease of use, comprehensibility for a wide range of users, concise presentation of the financial statements, reduced implementation costs. The major disadvantages in using accrual accounting consisted of the inability to create a complete image regarding assets and liabilities, debts and claims.

✓ *Post-communist period (1990-prezent day)*

In its turn, this period can be divided into the following phases:

- *Phase I: 1990-2002;*

After 1989, when Romania transitioned from a centralised economy to a market economy, and by 2002, there was little change. Public administration used the same system based on cash accounting, which was based on a legal framework available since 1984 and which had undergone little change (Deaconu et al., 2011). Thus, the first to undergo some changes was the Accountancy Act which makes reference to public accounting. It must include: income and expenditure accounts, general accounts (based on the principle of rights and obligations detection) and state treasury accounts.

At the end of 2002 the Ministry of Public Finances adopted two orders that take a step towards accrual accounting: Order 1746/2002, approving the methodological norms regarding the organization and management of asset accounting for public institutions, the chart of accounts and the monograph of the main operations (applied experimentally on

13 public institutions) and Order 1792, approving the four phases of budgetary execution of expenditure to be completed by all public institutions, irrespective of the financing manner of these expenses with the mandatory compliance with procedures. Public institutions are also required to organize, to lead the bookkeeping and report on budgetary and legal commitments starting with fiscal year 2003.

- *Phase II: 2003-2005, preparatory for accrual accounting adoption;*

In 2003-2005, the accounting-standard setter in Romania, the Ministry of Finance, through the Public Institutions Accounting Methodology General Directorate, adopted a series of laws by which the legal framework undergoes changes by assimilating specific elements of accrual accounting: improvement of budget classification, establishing of economic classification priorities according to the institutional and functional classification.Complementing the Accountancy Act, Order 520/2003 is issued on the organization and management of accounting revenues.

The novelty regarding the registration of fixed assets in accounting was introduced in 2003 when, by adopting Ordinance 81 and the Order 1487/2003, depreciation and reassessment are introduced to reflect the real value of goods (later replaced in 2008).

In 2005, in the context of undertaken commitments for accession to the European Union, Order no. 1917/2005 approving the methodological norms regarding the organization and management of accounting in public institutions was emitted. It was developed in accordance with IPSAS standards and European directives.

- *Phase III: 2006-present day*

By January 2006, the public institutions in Romania had applied the provisions of Order no. 324/1984.

According to Order 1917/2005, all public institutions must prepare financial statements congruent with accrual accounting conditions, lead double entry bookkeeping (until now a large number of public institutions, including rural town halls, led single entry bookkeeping).

Figure 3- Short presentation on the evolution of public accounting in Romania
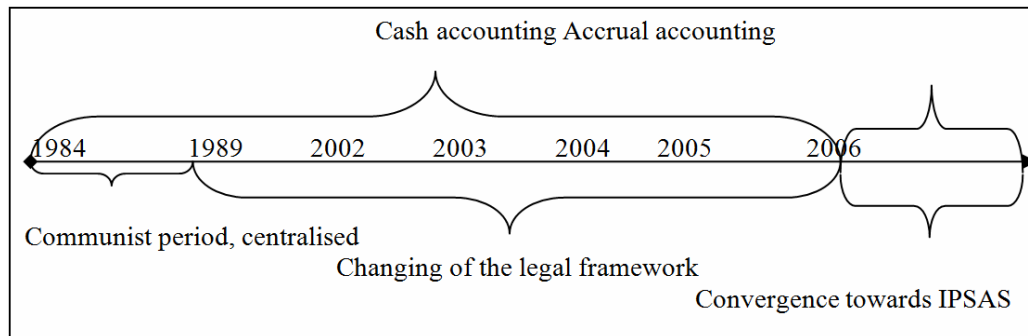
Source: own processing

III. Case study on revaluation and depreciaton of fixed assets in the Romanian public sector

The revaluation of fixed assets is performed at their fair value. The fair value of fixed assets is, according to IPSAS 17, the market value determined by appraisal and performed by professional evaluators. Furthermore, the standards provide two methods of revaluation (Dascălu *et al*, 2006):

a) Gross value method. This method consists in the simultaneous revaluation of the groos value of fixed assets and in the accumulated depreciation by multiplying the book value with an index (method adopted by national norms).

b) Net worth method. This method consists in the revaluation of the accounting net worth.

For the first time in the history of Romanian public accounting, in 2003, by introducing revaluation, assets were brought to their "current cost or their book value updated in conjunction with the utility of these goods and their market value." To exemplify, we present the following table on the revaluation of two buildings used for education.

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Table 18- Comparative situation regarding the revaluation and depreciation of fixed assets

Name of asset	Year of entry as heritage	Book value (denominated) RON	Revaluated value 2003 (denominated) RON	Revaluated value 2009 (denominated) RON	Revaluated value 2010 (denominated) RON
Building A	1972	922,39	5.340.843,42	5.843.416,79	7.752.233,16
Building B	1982	1312,23	5.064.429,34	9.533.230,96	11.580.558,37

Source: own processing

For the revaluation of the assets, the book value of the fixed asset was taken into consideration at the entry date as heritage correlated with an update coefficient available on December 31, 2002. For the building A that had been included in the national heritage in 1972, the coefficient used is 5790,2 while for the building B the coefficient used was 3859,4 (Order 1487 of 2003 on revaluation and depreciation of fixed assets).

We notice that the two buildings are recorded in the accounts at token values. Generally, this causes an underestimation of the state's public assets. Because of this and of the need for compatibility between national norms and the Community acquis regarding the generally accepted accounting principles and rules on the preparation and presentation of the accounts of public institutions, the necessity of developing the legal framework which would allow the recording of revaluation and depreciation of fixed assets owned by public institutions. Regarding the time of revaluation, it coincides with the international accounting standards for the public sector (IPSAS 17): assets revaluation must be performed on a regular basis so that the book value will not differ significantly from the one that could be determined if fair value is used.

Next, we will present the manner in which book value in accounting was determined, updated for the building A:

Table 19- Practical example of a calculation; building revaluation and depreciation

No. Fixed asset name	Bookkeeping entry value	Normal operating time	Normal operating time, consumed on revaluation date	Level of usage	Value coressponding to normal operating time, consumption function	Value corresponding to remaining normal operating time
	1	2	3	5=3/2	6=1*5	7=1-6
Building A	5.340.843,42	600	438	0,7300	3.898.815,70	1.442.027,72
Building A	5.843.416,79	600	452	0,7533	4.402.040,65	1.441.376,14

Consumption price index	Updated accounting book value (revalued)	Accounting revaluation differences to be recorded on revaluation date	Accounting revaluation differences to be recorded on revaluation date, corresponding to normal consumed operating time	Accounting revaluation differences to be recorded on revaluation date, corresponding to remaining normal operating time	Depreciated value
8	9=1*8	10=9-1	11=10*5	12=10-11	13=7+12
109,41%	5.843.416,79	502.573,37	366878,56	135.694,81	1.577.722,53
132,67%	7.752.233,16	1.908.816,37	1437975,00	470.841,37	1.912.217,51

Source: own processing

The accounting treatment of revaluation results, as stipulated by the standard, has been adopted by the national norms as follows (Ilie, Alecu, 2011):
- if, after performing revaluation, the asset value increases, this increase is treated as a growth in the revaluation reserve or as an income. This is achieved as long as it compensates an expenditure of that asset whose decrease was previously recognised;

- if, after performing revaluation, the asset value is reduced, this reduction is treated as a revaluation reserve decrease or as an expense, unless a reserve relating to that asset is recognised.

As far as the treatment of depreciation at the moment of revaluating an asset is concerned, national norms coincide with those of IPSAS 17:

- either depreciation is restated proportionately with the change in the gross book value of the asset. In this case, the book value of the asset after revaluation equals its revalued value. This method is used when the asset is revalued by applying the consumer price index announced by National Institute of Statistics.

- or depreciation is removed from the gross book value of the asset and the net amount restated to the revalued amount of the asset. This method is used when the asset is revalued to market value.

IV. Conclusion

Political decision at first, later, a challenge for the accounting profession, the adjustment of the Romanian public accounting to the International Standards for the Public Sector under accrual accounting conditions is certainly a step forward, bringing with it essential advantages, such as: a complete image of assets and liabilities, multi-annual financial statement presentation, analytical presentation of accounting records, increased efficiency of management and decision-making due to better information, more efficient audits due to clear and consistent records, tighter political control through a better understanding of the financial impact of policies, minimized risk of error in payments to beneficiary (www. ec.europa.eu), provides international comparability, especially between EU Member States. Among the disadvantages of accrual accounting the high implementation costs and lack of specialized personnel can be mentioned. From the research carried out, we noticed that the staff used to working by cash accounting rules found it hard to adapt to those of accrual accounting.

Furthermore, for a better correspondence between the data presented in the budget and that provided by accountancy, adoption of the commitment budget is necessary. The currently used cash budget contains the following components, as far as revenue is concerned: initial budgetary provisions, final budgetary provisions, performed revenues and, as far as expenditure is concerned: achieved revenues, commitment appropriations,

initial budget loans, definitive budget loans, payments made (Alecu, 2010). An accrual budget should include information on identified entitlements and budgetary provisions, as far as revenue is concerned, and commitment and budget appropriations, as far as expenditure is concerned.

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