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**Marisa Agostini**

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Comprehensive Income: is  
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**Presentation of Other Comprehensive Income: is there a relationship with the total amount, the sign and the volatility of such accounting items?**

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**Abstract.** The paper analyzes the ways of reporting other comprehensive income (OCI) and their relationships with three different variables, *i.e.* the volatility, the sign and the total amount of such accounting items. In order to investigate the reasons of such relationships, the study considers the final annual financial statements approved for the accounting periods from 2009 (*i.e.* the first year in which the 2007 revision of IAS 1 was applied) to 2012 by Italian companies which are required to apply the International Financial Reporting Standards and to follow their updates since 2005. The choice of this specific sample is due to the willingness of verifying the ways of departing from a strong Italian accounting traditional culture which does not consider other comprehensive income (OCI items have never been mentioned by Italian civil code and have not been included in Italian financial reporting). Some preliminary results emphasize the relevance of OCI items. In each accounting period, the majority of the analyzed financial statements show a significant impact of OCI on net income (each amount in absolute value) over a materiality threshold of 10%. In some years also the difference between ROE measured with net income (NI) and ROE measured with comprehensive income (CI) is statistically significant. It demonstrates that the prominence of OCI in evaluating firms' performance potentially should not be ignored. Moreover, the median of changes in OCI is greater than the one of changes in net income, showing that OCI is more volatile than NI. After such preliminary analysis, a logistic analysis has been implemented by considering the above-mentioned variables. Such study brings some important results confirming the significance of the relations between the ways of reporting other comprehensive income and both the sign and the total amount of such accounting items. The analysis has been implemented by using also different versions of the dependent variable in order to investigate the impact of the OCI presentation in two statements which are positioned in two different (*i.e.* following) pages. So, while the predominance in the use of two statements for OCI presentation shows the willingness to emphasize the traditional profit or loss section and may be related to the influence of a strong Italian accounting traditional culture, the reasons of the use of two different pages for such presentation may represent the signal of "accounts management".

**Keywords:** Other Comprehensive Income, Financial Statement Presentation, Volatility

**JEL Classification Numbers:** M41, M42, M48

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## INTRODUCTION

This paper focuses on other comprehensive income (OCI) and investigates the relations between its peculiar ways of presentation and three different variables, *i.e.* the volatility, the sign and the total amount of such accounting items. These are introduced and described by International Accounting Standard (IAS) 1, *Presentation of financial statements*, which was revised in 2007 and 2011. This standard provides only general guidelines about both the structure and the content of financial statements. This may be disorienting for companies (such as Italian ones) that have traditionally considered a stricter regulation about financial statement presentation. For this reason, the investigation of the solutions adopted by Italian companies, called upon to apply International Financial Reporting Standards (IFRS), may be really interesting: these companies are not used to consider OCI in their income statements and they are not guided by IFRS in OCI presentation. So, the choice of this specific sample is due to the willingness of verifying the ways of departing from a strong Italian accounting traditional culture that does not consider other comprehensive income. On one hand, OCI items have never been mentioned by Italian civil code and have not been included in Italian financial reporting. On the other hand, Italian companies, whose shares belonged to the FTSE Italia STAR and FTSE MIB segments, are required to apply the International Financial Reporting Standards (IFRS) and to follow their updates since 2005.

OCI are included in income statement presentation and IAS 1 continues to provide little specific guidance about the presentation of such items. The main change in such accounting standard is still represented by the 2007 revision which has permitted two alternative types of formats: the income statement can be presented either as a single statement of comprehensive income (*i.e.* statement of profit or loss and other comprehensive income) or two statements (*i.e.* a separate statement of profit or loss and another statement of OCI). After such relevant revision, on June 15, 2011, the FASB issued ASU 2011-05 still allowing companies to report OCI either at the bottom of one statement of comprehensive income or in a separate statement immediately following the income statement.

The most of empirical studies about this field focuses on the decision-usefulness of OCI and its components to financial statement users. Generally these studies show that comprehensive income is not superior to net income in predicting future cash flows and income (Dhaliwal et al. 1999, Barton et al. 2010), while the evidence on individual OCI items reveals important differences in value relevance across these items (Soo and Soo 1994, Bartov 1997, Louis 2003). Only a minority of empirical surveys on OCI addresses the issue of its presentation. Even though support for an all-inclusive income statement has existed for a long time (Paton and Littleton 1940), reporting other comprehensive income in a performance statement is a relatively recent phenomenon in the international accounting practice. Although supporters of efficient markets assume that the location of information within financial statements is irrelevant to investors, some pieces of research suggest that format presentation affects how investors use information (Hirst and Hopkins 1998, Maines and McDaniel 2000, Chambers et al. 2007). As consequence, there might be differences in reporting OCI with the single-statement or two-statement approach. The importance of such presentation emerges also as related to the concept of final accounting result (*i.e.* net income versus comprehensive income) and the need of a clean articulation between financial statements which should discipline managers and analysts to focus on all types of value creation (Linsmeier et al.,

1997; Rees and Shane, 2012). Moreover, OCI consideration is at the moment an “hot” matter of discussion because it plays a significant role in FASB and IASB joint project on financial statement presentation. In its Exposure Draft, *Comprehensive Income (Topic 220): Statement of Comprehensive Income*, FASB proposed only one method of presentation (i.e. one continuous statement of performance). Respondents to the Exposure Draft expressed concern that a single statement would cause confusion among investors by inappropriately deemphasizing net income. Respondents also commented that there are fundamental differences between earnings components and OCI items, and that the proximity of these items in the same statement would blur these differences. The FASB decided to allow the option of a separate consecutive performance statement.

The contribution of the present paper is the analysis of OCI presentation to understand if the amount of such accounting items is relevant in leading companies to choose one of the two permitted ways of OCI presentation. For this reason, the present paper focuses on the relations between such presentation (i.e. one statement or two statements with separate presentation of OCI) and three different variables, i.e. the volatility, the sign and the total amount of such accounting items.

RESEARCH QUESTION 1 – Is there a significant relation between the total amount (in absolute value) of other comprehensive income and the way of presentation of OCI items?

RESEARCH QUESTION 2 – Is there a significant relation between the sign of other comprehensive income amount and the way of presentation of OCI items?

RESEARCH QUESTION 3 – Is there a significant relation between the volatility of other comprehensive income amount and the way of presentation of OCI items?

This paper is organized as follows. The next section reviews the relevant literature by introducing a brief overview of other empirical studies that deal with the issue of OCI presentation. The following sections describe data and sample, introduce some descriptive statistics and preliminary results, show the results of the implemented analysis. Finally, in section six, some concluding remarks are presented.

## **LITERATURE REVIEW**

The first revision of IAS 1 in 2007 introduced the possibility of presenting OCI in the two above-mentioned different ways; this was kept by the second revision of the same international accounting standard in 2011 and it is still a matter of discussion because of IASB-FASB joint project (Rees and Shane, 2012). Although the importance of this topic, only a minority of studies focuses on OCI presentation (Pisani, 2011).

Entities' behavior in representing comprehensive income was firstly analyzed in the US context where FAS No. 130, *Reporting Comprehensive Income*, allowed three alternative ways of OCI presentation (i.e. in a single overall statement, in a separate statement, in the statement of changes in stockholders' equity); the third additional option was eliminated by FASB in June 2011.

Campbell et al. (1999) analyzed a sample of 73 American companies applying FAS No. 130 and shown that only a minority of such entities used a unique combined statement of net income and comprehensive income. Their main conclusion was the following: entities with negative amounts of OCI have the tendency to report them in the statement of changes in equity in order to reduce the importance of comprehensive income as measure of performance and to emphasize the traditional net income.

The tendency of avoiding the one-statement-option has been emphasized by a lot of other studies, but different conclusions are gathered in order to explain such choice of presentation. Bhamornsiri and Wiggins (2001) conclude that in their sample there is a large preference for presenting OCI in the statement of changes in equity, but this does not depend on the direction and the size of such accounting items. Jordan and Clark (2002) emphasize the correlation between the direction and size of OCI and the way of reporting: entities with negative OCI have a greater tendency to report CI in a statement of changes in equity with respect to entities with positive OCI. Similar results were gathered by Pandit and Phillips (2004).

There is not clear and unequivocal evidence about the reasons of such preference in the way of OCI presentation. Moreover, there is also the suspect (mentioned in some contribution) that OCI presentation may be related to earnings management (Hunton et. al, 2006). Hirst and Hopkins (1998) show that presentation of OCI in a performance statement is more effective at revealing earnings manipulation by management. Rees and Shane, 2012 analyze *the “Prominence of OCI Presentation”* by considering which method of presentation results in the greatest assimilation of useful information. They conclude in the following way: *“while the extant research clearly shows that presentation format matters and suggests that more transparent formats result in investors using the data more fully, this does not completely resolve the issue of which format is preferable. (...) The research reviewed so far provides limited results on this issue”*. Bamber et al. (2010) suggest that even though the reporting location choice is inconsequential in a traditional rational markets view, managers act as if they believe that comprehensive income reporting location matters: they find that firms with larger (absolute) unrealized gains and losses on AFS securities are less likely to use performance reporting (i.e. the single statement option). This is also strictly related to earnings volatility: according to Graham et al. (2005) survey, managers believe that stakeholders perceive more volatile performance measures as indicating higher firm risk, even in the case of constant cash flows. This is confirmed by other studies (Farrelly et al., 1985; Lipe, 1998; Yen et al., 2007): both professional and nonprofessional investors associate variability in earnings with higher firm risk. Koonce et al. (2005) suggest that such perception is exaggerated by the relatively uncontrollable nature of OCI. Maines and McDaniel (2000) analyze volatility in comprehensive income and find that investors penalize the evaluation of firms’ performance when managers adopt the one-statement-option.

In the Italian context, few empirical studies have been developed about OCI presentation. Incollingo and Di Carlo (2012) focus on total comprehensive income (CI) as a new way of measuring performance after the 2007 revision of IAS 1; they analyze the amount and the volatility of such result. D’este and Fellegara (2009) show how entities apply for the first time the 2007 revised IAS 1 by considering other comprehensive income in the interim financial reporting of a sample of Italian listed groups. In the same way, Ferraro (2011) considers a sample of 160 Italian

listed companies applying the revised IAS 1 for the first time in their 2009 financial statements. Through a descriptive analysis of data and an exploratory analysis of notes, such paper shows that a large majority of companies (86% of the sample) chooses the option to present two separate statements (rather than a single one) and does not explicit the reasons of such choice.

According to the recalled literature, three hypotheses are suggested for the following analysis:

**HYPOTHESIS 1** – There is a significant relation between the total amount (in absolute value) of other comprehensive income and the way of presentation of OCI items.

**HYPOTHESIS 2** – There is a significant relation between the sign of other comprehensive income amount and the way of presentation of OCI items.

**HYPOTHESIS 3** – There is a significant relation between the volatility of other comprehensive income amount and the way of presentation of OCI items.

## DATA AND SAMPLE

The study analyzes the final annual financial statements approved for the accounting periods from 2009 (*i.e.* the first year in which the 2007 revised IAS 1 was applied) to 2012 by all the Italian companies whose shares belonged to the FTSE Italia STAR and FTSE MIB segments. Such companies must apply IFRS according to the Legislative Decree 38/2005: this regulation distinguished among entities which must (*i.e.*, in a mandatory way) and entities which could (*i.e.*, in an optional way) apply IFRS. The second type category (*i.e.* entities which are “authorized” but not required to apply IFRS in both its consolidated and annual financial statements) can not be considered in the sample because there is the risk to not obtain updated information according to IFRS. Moreover, banks, insurers, and other financial institutions are excluded from the sample because they are subjected to specific regulations. For these reasons, the sample considers 86 listed corporate entities (**Table 1**) belonging to the Star and MIB segments of the Italian stock market (called MTA): these companies comply with requirements of excellence and are forced to make available more information than the standard-segment companies.

**Table 1** – *Entities included in the sample.*

ENTITY	SEGMENT IN MTA	ENTITY	SEGMENT IN MTA
ACOTEL GROUP	FTSE Italia STAR	A2A	FTSE MIB
AEFFE	FTSE Italia STAR	ANSALDO	FTSE MIB
AMPLIFON	FTSE Italia STAR	ATLANTIA	FTSE MIB
ASCOPIAVE	FTSE Italia STAR	AUTOGRILL	FTSE MIB
ASTALDI	FTSE Italia STAR	BUZZI UNICEM	FTSE MIB
BIANCAMANO	FTSE Italia STAR	CAMPARI	FTSE MIB
BIESSE	FTSE Italia STAR	DIASORIN	FTSE MIB

BOLZONI	FTSE Italia STAR	ENEL	FTSE MIB
BREMBO	FTSE Italia STAR	ENEL GREEN POWER	FTSE MIB
CAD IT	FTSE Italia STAR	ENI	FTSE MIB
CAIRO COMMUNICATION	FTSE Italia STAR	EXOR	FTSE MIB
CEMBRE	FTSE Italia STAR	FIAT	FTSE MIB
CEMENTIR HOLDING	FTSE Italia STAR	<del>FIAT INDUSTRIAL</del>	<del>FTSE MIB</del>
CENTRALE DEL LATTE DI TORINO	FTSE Italia STAR	FINMECCANICA	FTSE MIB
COBRA AUTOMOTIVE TECHNOLOGIES	FTSE Italia STAR	IMPREGILO	FTSE MIB
DADA	FTSE Italia STAR	LOTTOMATICA	FTSE MIB
DAMIANI	FTSE Italia STAR	LUXOTTICA	FTSE MIB
DATALOGIC	FTSE Italia STAR	MEDIASET	FTSE MIB
DEA CAPITAL	FTSE Italia STAR	PARMALAT	FTSE MIB
DIGITAL BROS	FTSE Italia STAR	PIRELLI	FTSE MIB
EEMS ITALIA	FTSE Italia STAR	PRYSMIAN	FTSE MIB
EI TOWERS	FTSE Italia STAR	SAIPEM	FTSE MIB
ELEN	FTSE Italia STAR	SALVATORE FERRAGAMO	FTSE MIB
ELICA	FTSE Italia STAR	SNAM	FTSE MIB
EMAK	FTSE Italia STAR	TELECOM	FTSE MIB
ENGINEERING	FTSE Italia STAR	TERNA	FTSE MIB
ESPRINET	FTSE Italia STAR	TODS	FTSE MIB
EXPRIVIA	FTSE Italia STAR		
FALCK RENEWABLES	FTSE Italia STAR		
FIDIA	FTSE Italia STAR		
FIERA MILANO	FTSE Italia STAR		
GEFRAN	FTSE Italia STAR		
IGD SHIQ	FTSE Italia STAR		
IMA	FTSE Italia STAR		
INTERPUMP GROUP SPA	FTSE Italia STAR		
IRCE	FTSE Italia STAR		
ISAGRO	FTSE Italia STAR		
<del>ITWAY</del>	<del>FTSE Italia STAR</del>		
LA DORIA	FTSE Italia STAR		
LANDI RENZO	FTSE Italia STAR		
MARR	FTSE Italia STAR		
MONDO TV	FTSE Italia STAR		
MUTUIONLINE	FTSE Italia STAR		
NICE	FTSE Italia STAR		
PANARIAGROUP INDUSTRIE CERAMICHE	FTSE Italia STAR		
POLIGRAFICA S FAUSTINO	FTSE Italia STAR		
POLTRONA FRAU	FTSE Italia STAR		
PRIMA INDUSTRIE	FTSE Italia STAR		
RENO DE MEDICI	FTSE Italia STAR		
REPLY	FTSE Italia STAR		



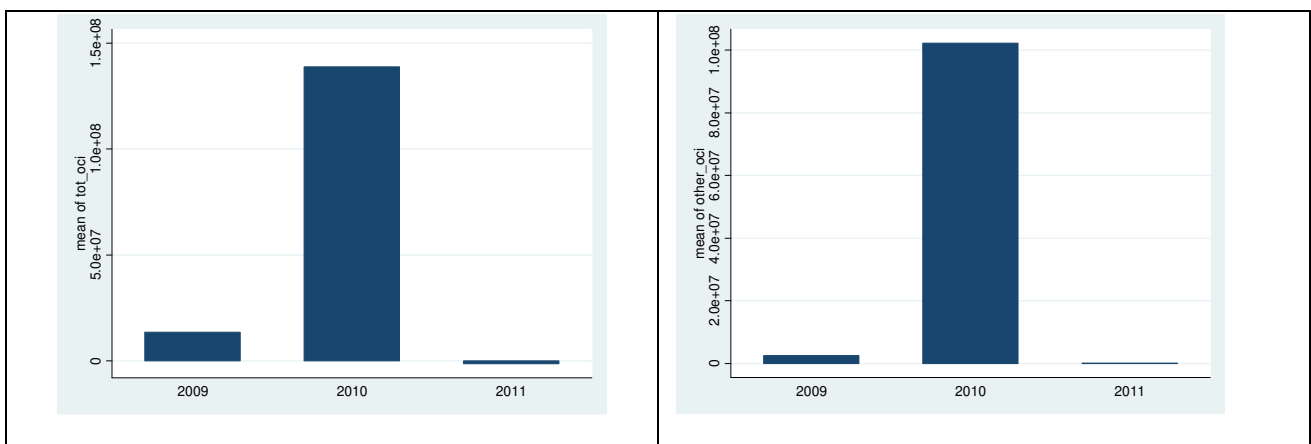
SABAF	FTSE Italia STAR
SAES GETTERS	FTSE Italia STAR
SERVIZI ITALIA	FTSE Italia STAR
SOGEFI	FTSE Italia STAR
TAMBURI INVESTMENT PARTNERS	FTSE Italia STAR
TERNIENERGIA	FTSE Italia STAR
TESMEC	FTSE Italia STAR
YOOX	FTSE Italia STAR
ZIGNAGO VETRO	FTSE Italia STAR

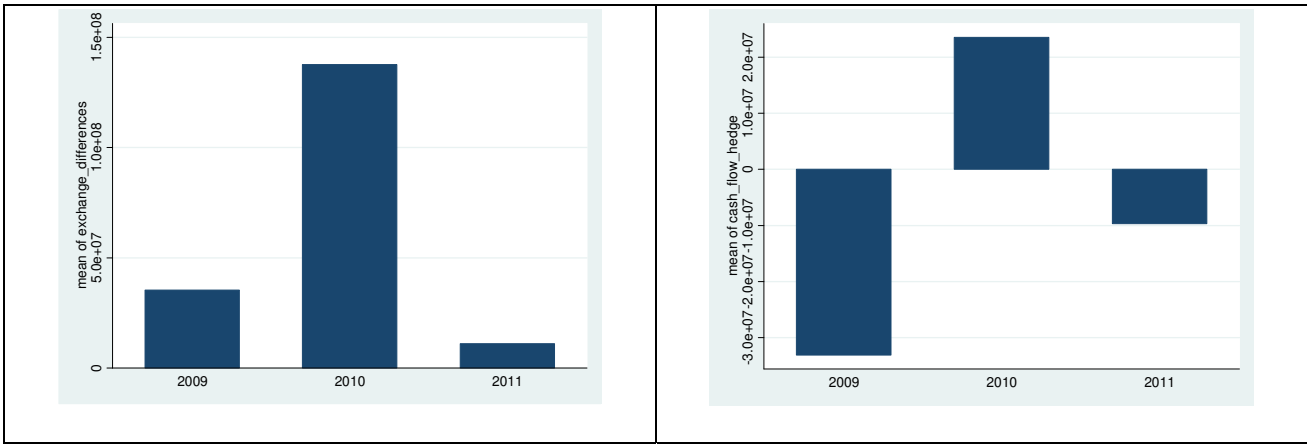
The financial statements of all the 86 sampled listed corporate groups have been analyzed referring to 2009, 2010, 2011 and 2012 accounting periods and totaling 256 observations in the sample analysis. The only listed entities which were excluded from the sample are Itway and Fiat Industrial because their information were not available for all the considered accounting periods. In the next section, the analysis is divided into two steps. Some descriptive statistical results precede the results obtained from the implementation of logistic analysis.

### DESCRIPTIVE STATISTICS AND PRELIMINARY RESULTS *(to be revised and completed)*

A first attempt of analysis reveals that for 16 observations (*i.e.* 7 observations in 2009, 4 observations in 2010, 5 observations in 2011 and **x observations in 2012**) there is a null total amount of OCI. The OCI item called *Foreign currency translation adjustments on foreign subsidiaries* presents a not-null amount in 194 observations (uniformly distributed in the considered years); the OCI item called *Changes in the fair value of a financial instrument in a cash flow hedge* presents a not-null amount in 163 observations (uniformly distributed in the considered years): these two OCI items are the most used in the financial statements of the sampled entities. The residual item (called *other OCI*) has a relevant total amount in 2010 (**Fig. 1**).

**Figure 1** – *A first attempt of OCI descriptive investigation.*





In order to understand the impact of OCI in the financial statements' results (*i.e.* NI and CI), the ratio of OCI to NI has been calculated (both OCI and NI have been considered in absolute value): the mean values of such ratio are 35,49% in 2009, 97,26% in 2010, 42,84% in 2011 **and X in 2012**; the medians are 8,47% in 2009, 18,45% in 2010, 9,56% in 2011 **and X in 2012**. Considering the frequency distribution and the materiality threshold of 10% (Jordan and Clark, 2002; McCoy et al., 2009), OCI total amount has a significant impact on NI in the 47% of the observations in both 2009 and 2011; this happens in the 60% of the cases in 2010 and in the 48% of the cases in 2011 (**Table 1**).

**Table 1** – Analysis of the ratio of OCI to NI.

<b>YEAR</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
OCI/NI (abs value) = 0	5,95%	3,49%	4,65%
0 < OCI/NI (abs value) < 5%	35,71%	27,91%	33,72%
5% < OCI/NI (abs value) <10%	10,71%	8,14%	12,79%
10% < OCI/NI (abs value) <100%	39,29%	41,86%	43,02%
OCI/NI (abs value) > 100%	8,33%	18,60%	5,81%

Another interesting descriptive result regards the percentage of sampled cases where, because of OCI items, CI and NI have opposite signs: they are 47,62% in 2009, 26,74% in 2010, 53,49% in 2011, x% in 2012.

## **ANALYSIS AND RESULTS (to be completed)**

Each research question has been considered through a logistic analysis.

*RESEARCH QUESTION 1 – Is there a significant relation between the total amount (in absolute value) of other comprehensive income and the way of presentation of OCI items?*

In order to implement the logistic analysis (**Figure 1**) the dependent variable (called **n\_ce**) is a dummy variable which takes value 0 if OCI items are included in the single statement of comprehensive income (*i.e.* statement of profit or loss and other comprehensive income); it takes

value 1 if OCI items are presented in a statement which follows the separate statement of profit (*i.e.* there are two different statements). The independent variable (called **t**) is a continuous variable which coincides with the absolute value of the total OCI amount.

**Figure 1** – Logistic analysis including the total amount (in absolute value) of other comprehensive income and the way of presentation of OCI items.

```

Iteration 0:  log likelihood = -75.88144
Iteration 1:  log likelihood = -74.016971
Iteration 2:  log likelihood = -70.588749
Iteration 3:  log likelihood = -66.951864
Iteration 4:  log likelihood = -61.918466
Iteration 5:  log likelihood = -61.804645
Iteration 6:  log likelihood = -61.803143
Iteration 7:  log likelihood = -61.803143

Logistic regression              Number of obs =      337
                                LR chi2(1)      =      28.16
                                Prob > chi2     =      0.0000
Log likelihood = -61.803143      Pseudo R2      =      0.1855

```

n_ce	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
t	7.76e-07	3.33e-07	2.33	0.020	1.24e-07 1.43e-06
_cons	1.658504	.2903679	5.71	0.000	1.089394 2.227615

Note: 0 failures and 80 successes completely determined.

The analysis emphasizes a significant relation between the total amount (in absolute value) of other comprehensive income and the way of presentation of OCI items. The same result is obtained by considering, as independent variable, the ratio of OCI total amount (in absolute value) to net income (**Figure 2**).

**Figure 2** – Logistic analysis including the ratio of OCI total amount (in absolute value) to net income and the way of presentation of OCI items.

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Iteration 0:  log likelihood = -75.88144
Iteration 1:  log likelihood = -73.715338
Iteration 2:  log likelihood = -71.150223
Iteration 3:  log likelihood = -70.732277
Iteration 4:  log likelihood = -70.72512
Iteration 5:  log likelihood = -70.725111
Iteration 6:  log likelihood = -70.725111

Logistic regression              Number of obs =      337
                                LR chi2(1)      =      10.31
                                Prob > chi2     =      0.0013
Log likelihood = -70.725111      Pseudo R2      =      0.0680

```

n_ce	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
r_a	4.002381	2.052702	1.95	0.051	-.0208415 8.025603
_cons	2.178512	.2866209	7.60	0.000	1.616745 2.740279

Note: 0 failures and 12 successes completely determined.

**RESEARCH QUESTION 2** – Is there a significant relation between the sign of other comprehensive income amount and the way of presentation of OCI items?

In order to implement the logistic analysis (**Figure 3**) the dependent variable (called **n\_ce**) is a dummy variable which takes value 0 if OCI items are included in the single statement of

comprehensive income (*i.e.* statement of profit or loss and other comprehensive income); it takes value 1 if OCI items are presented in a statement which follows the separate statement of profit (*i.e.* there are two different statements). The independent variable (called **sign\_oci**) is another dummy variable which takes value 0 if OCI total amount is negative, otherwise it takes value 1.

**Figure 3** – Logistic analysis including the sign of OCI total amount and the way of presentation of OCI items.

Iteration 0:		log likelihood = -75.88144				
Iteration 1:		log likelihood = -72.787165				
Iteration 2:		log likelihood = -72.553963				
Iteration 3:		log likelihood = -72.553494				
Iteration 4:		log likelihood = -72.553494				
Logistic regression		Number of obs = 337				
		LR chi2(1) = 6.66				
		Prob > chi2 = 0.0099				
Log likelihood = -72.553494		Pseudo R2 = 0.0439				
n_ce	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sign_oci	-1.329497	.5702004	-2.33	0.020	-2.447069	-.2119246
_cons	3.650658	.5064519	7.21	0.000	2.658031	4.643286

The analysis emphasizes a significant relation between the sign of OCI total amount and the way of presentation of other comprehensive income. The same result is obtained by considering, as independent variable, the sign of the ratio of OCI total amount to net income (**Figure 4**).

**Figure 4** – Logistic analysis including the sign of the ratio of OCI total amount to net income and the way of presentation of OCI items.

Iteration 0:		log likelihood = -75.88144				
Iteration 1:		log likelihood = -69.960079				
Iteration 2:		log likelihood = -68.967746				
Iteration 3:		log likelihood = -68.947552				
Iteration 4:		log likelihood = -68.947544				
Iteration 5:		log likelihood = -68.947544				
Logistic regression		Number of obs = 337				
		LR chi2(1) = 13.87				
		Prob > chi2 = 0.0002				
Log likelihood = -68.947544		Pseudo R2 = 0.0914				
n_ce	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sign_r	-2.190915	.7537732	-2.91	0.004	-3.668284	-.7135472
_cons	4.369448	.7115681	6.14	0.000	2.9748	5.764096

**RESEARCH QUESTION 3** – Is there a significant relation between the volatility of other comprehensive income amount and the way of presentation of OCI items?

In order to implement the logistic analysis (**Figure 5**) the dependent variable (called **n\_ce**) is a dummy variable which takes value 0 if OCI items are included in the single statement of comprehensive income (*i.e.* statement of profit or loss and other comprehensive income); it takes value 1 if OCI items are presented in a statement which follows the separate statement of profit (*i.e.*

there are two different statements). The independent variable (called **volatility**) is a continuous variable. This is the ratio between two standard deviations which considered data over four accounting periods (*i.e.* 2009, 2010, 2011 and 2012): the numerator regards the ratio of net income (NI) to equity, while the denominator regards the ratio of comprehensive income (CI) to equity.

**Figure 5** – Logistic analysis including OCI volatility and the way of presentation of OCI items.

Iteration 0:		log likelihood = -19.076296				
Iteration 1:		log likelihood = -18.585257				
Iteration 2:		log likelihood = -18.468238				
Iteration 3:		log likelihood = -18.465363				
Iteration 4:		log likelihood = -18.465362				
Logistic regression		Number of obs =		86		
		LR chi2(1) =		1.22		
		Prob > chi2 =		0.2690		
Log likelihood = -18.465362		Pseudo R2 =		0.0320		
n_ce	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
volatility	1.28e-06	1.61e-06	0.79	0.427	-1.87e-06	4.42e-06
_cons	1.368457	1.697009	0.81	0.420	-1.95762	4.694533

The logistic analysis does not indicate a significant relation between this measure of OCI volatility and the way of presentation of other comprehensive income.

\*\*\*\*\*

**ROBUSTNESS CHECK WITH RESPECTO TO THE WAY TO MEASURE THE PHENOMENON OF INTEREST.**

Other two different versions of the dependent variable has been then considered for all the three research questions focusing in the only case of two statements (*i.e.* OCI items are presented in a statement which follows the separate statement of profit or loss). The dependent variable called **page** is a dummy variable which takes value 1 if the two statements are presented in the same page of the financial reporting (*i.e.* OCI items are presented in the same page of the statement of profit or loss); otherwise it takes value 0. The dependent variable called **n\_ce\_page** is a dummy variable which takes value 0 if either there is a single statement of comprehensive income (*i.e.* statement of profit or loss and other comprehensive income) or the two statements are presented in the same page of the financial reporting (*i.e.* OCI items are presented in the same page of the statement of profit or loss); otherwise it takes value 1. The results above described for the first research question are confirmed by using **t** as independent variable and both these two new different versions of the dependent variable (**Figure 6**).

**Figure 6** – Logistic analysis including the total amount (in absolute value) of other comprehensive income and the page of presentation of OCI items.

Iteration 0: log likelihood = -183.59859						
Iteration 1: log likelihood = -180.37239						
Iteration 2: log likelihood = -180.17079						
Iteration 3: log likelihood = -180.1692						
Iteration 4: log likelihood = -180.1692						
Logistic regression				Number of obs	=	318
				LR chi2(1)	=	6.86
				Prob > chi2	=	0.0088
Log likelihood = -180.1692				Pseudo R2	=	0.0187
page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
t	-2.58e-09	1.56e-09	-1.65	0.098	-5.64e-09	4.80e-10
_cons	-.9169275	.1339176	-6.85	0.000	-1.179401	-.6544537
Iteration 0: log likelihood = -207.44572						
Iteration 1: log likelihood = -202.89386						
Iteration 2: log likelihood = -202.50271						
Iteration 3: log likelihood = -202.49196						
Iteration 4: log likelihood = -202.49192						
Iteration 5: log likelihood = -202.49192						
Logistic regression				Number of obs	=	337
				LR chi2(1)	=	9.91
				Prob > chi2	=	0.0016
Log likelihood = -202.49192				Pseudo R2	=	0.0239
n_ce_page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
t	3.43e-09	1.87e-09	1.83	0.067	-2.33e-10	7.08e-09
_cons	.6970356	.1255937	5.55	0.000	.4508764	.9431948

Considering the two new versions of the dependent variable (**page** and **n\_ce\_page**), we obtain one more confirmation: there is a significant logistic relation between the page of presentation of OCI items and the sign of the ratio of OCI total amount to net income (**Figure 7**).

**Figure 7** – Logistic analysis including the sign of the ratio of OCI total amount to net income and the page of presentation of OCI items.

Iteration 0: log likelihood = -207.44572						
Iteration 1: log likelihood = -203.44701						
Iteration 2: log likelihood = -203.42861						
Iteration 3: log likelihood = -203.42861						
Logistic regression				Number of obs	=	337
				LR chi2(1)	=	8.03
				Prob > chi2	=	0.0046
Log likelihood = -203.42861				Pseudo R2	=	0.0194
n_ce_page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sign_r	-.681391	.2435521	-2.80	0.005	-1.158744	-.2040376
_cons	1.201266	.1875023	6.41	0.000	.8337687	1.568764

The accounting period 2009 is the first year in which the 2007 revision of IAS 1 was applied. It represents the real moment in which each Italian listed company had to choose the way of presentation of OCI items. For this reason we expect to obtain a significant logistic relation by considering only 2009 data. This has been confirmed for the relations between the page of presentation of OCI items (through the two versions of the dependent variable called **page** and **n\_ce\_page**) and the ratio of OCI total amount to net income (**Figure 8**).

**Figure 8** – Logistic analysis including the sign of the ratio of OCI total amount to net income and the page of presentation of OCI items.

2009 Accounting Period							2010-2011-2012 Accounting Periods						
Iteration 0: log likelihood = -43.581366 Iteration 1: log likelihood = -40.882597 Iteration 2: log likelihood = -39.860452 Iteration 3: log likelihood = -39.817385 Iteration 4: log likelihood = -39.817373 Iteration 5: log likelihood = -39.817373							Iteration 0: log likelihood = -139.86399 Iteration 1: log likelihood = -139.86399						
Logistic regression Number of obs = 79 LR chi2(1) = 7.53 Prob > chi2 = 0.0061 Pseudo R2 = 0.0864							Logistic regression Number of obs = 239 LR chi2(1) = 0.00 Prob > chi2 = 0.9984 Pseudo R2 = 0.0000						
Log likelihood = -39.817373							Log likelihood = -139.86399						
page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]		page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
r_a	-3.13253	1.753353	-1.79	0.074	-6.569039 .3039789		r_a	.0001095	.0560438	0.00	0.998	-1.1097343 .1099532	
_cons	-.6026153	.3350157	-1.80	0.072	-1.259234 .0540033		_cons	-.9847498	.1512753	-6.51	0.000	-1.281244 -.6882555	
Note: 1 failure and 0 successes completely determined.													
Iteration 0: log likelihood = -50.254645 Iteration 1: log likelihood = -46.553029 Iteration 2: log likelihood = -45.020389 Iteration 3: log likelihood = -44.950044 Iteration 4: log likelihood = -44.9499 Iteration 5: log likelihood = -44.9499							Iteration 0: log likelihood = -157.08554 Iteration 1: log likelihood = -157.02756 Iteration 2: log likelihood = -157.02744 Iteration 3: log likelihood = -157.02744						
Logistic regression Number of obs = 84 LR chi2(1) = 10.61 Prob > chi2 = 0.0011 Pseudo R2 = 0.1056							Logistic regression Number of obs = 253 LR chi2(1) = 0.12 Prob > chi2 = 0.7332 Pseudo R2 = 0.0004						
Log likelihood = -44.9499							Log likelihood = -157.02744						
n_ce_page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]		n_ce_page	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
r_a	3.808316	1.831682	2.08	0.038	.2182858 7.398347		r_a	.0192507	.0581079	0.33	0.740	-.0946388 .1331401	
_cons	.3099084	.3131866	0.99	0.322	-.303926 .9237428		_cons	.7763986	.1410161	5.51	0.000	.5000122 1.052785	
Note: 0 failures and 1 success completely determined.													

## CONCLUSIONS

The paper analyzes the relationship between the way of OCI presentation and three different variables, *i.e.* the volatility, the sign and the total amount of such accounting items. In order to investigate the reasons of such relationships, the study analyzes the final annual financial statements approved for the accounting periods from 2009 (*i.e.* the first year in which the revised IAS 1 has been applied) to 2012 by the Italian companies whose shares belonged to the FTSE Italia STAR and MIB segments. The choice of this specific sample is due to the willingness of verifying the ways of departing from a strong Italian accounting traditional culture: this does not consider other comprehensive income. On one hand, OCI items have never been mentioned by Italian civil code and have not been included in Italian financial reporting. On the other hand, Italian companies, whose shares belonged to the FTSE Italia STAR and MIB segments, are required to apply the International Financial Reporting Standards (IFRS) and to follow their updates since 2005.

Some preliminary-descriptive results emphasize the relevance of OCI items. In each accounting period, the majority of the analyzed financial statements show a significant impact of OCI on net income (each amount in absolute value) over a materiality threshold of 10%. In some years also the difference between ROE measured with net income (NI) and ROE measured with comprehensive income is statistically significant. It demonstrates that the prominence of OCI in evaluating firms' performance potentially should not be ignored. Foreign currency translation adjustments and gains or losses related to cash flow hedges are the most significant items of OCI

for each accounting period. Moreover, the median of changes in OCI is greater than the one of changes in net income, showing that OCI is more volatile than NI.

After such preliminary analysis, a logistic analysis has been implemented by considering the above-mentioned variables. Such study brings some important results confirming the significance of the relations between the ways of reporting other comprehensive income and both the sign and the total amount of such accounting items. The analysis has been implemented by using also different versions of the dependent variable in order to investigate the impact of the OCI presentation in two statements positioned in two different (*i.e.* following) pages. So, while the predominance in the use of two statements for OCI presentation shows the willingness to emphasize the traditional profit or loss section and may be related to the influence of a strong Italian accounting traditional culture, the reasons of the use of two different pages for such presentation may represent the signal of “accounts management”.

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