IFRS 3, IAS 36 and Disclosure: The Determinants of the Quality of Disclosure

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***Abstract* — The paper presents the results of an empirical analysis on the quality of the mandatory disclosure of IFRS 3 – business combinations and IAS 36 – impairment of assets. The analysis focuses, in particular, on the determinants that influence the quality of disclosure. The aim of the paper is to verify the determinants that impact on the quality of disclosure on recognition, measurement and impairment of goodwill. The analysis was carried out on Italian listed groups belonging to the main stock exchange index (FTSE/MIB40); the groups listed on FTSE/MIB40 represent 80% of the total market capitalization of Italian listed companies as stated by the Italian Stock Exchange. The international financial crisis has lead many companies to acquire other groups or to merge together and therefore to recognize impairment losses on goodwill or to verify twice (or more) a year whether impairment losses were generated. In this context disclosure plays a key role for investors. IFRS 3 outlines the accounting when an acquirer obtains control of a business (e.g. an acquisition or merger) and groups have to disclose a great deal of information as for example. the the acquisition and the date it was acquired, the percentage of voting equity interests acquired, the primary reasons for the business combination and a description of how the acquirer obtained control of the acquire, a qualitative description of the factors that make up the goodwill recognized, such as expected synergies from combining operations of the acquiree and the acquirer, intangible assets that do not qualify for separate recognition or other factors, etc. There is a total number of forty key items in the IFRS 3 disclosure. IAS 36 defines that companies shall disclose, among others, the carrying amount of goodwill allocated to the cash generating unit (CGU), the basis on which the unit's recoverable amount has been determined, the discount rate applied to the cash flow projections, etc.**

We analysed a total number of eight key pieces of information with reference to IAS 36.are eight. Many studies have been conducted on the quality of voluntary disclosure and the results show that the disclosure index is very low. Thus, our paper aims at verifying if, first of all, the mandatory disclosure is shown in the notes of the consolidated financial statement with reference to IFRS 3 and IAS 36 by using the Dscore according to Cooke [1]. Secondly, the aim of the paper is to analyze the determinants that influence the quality of the Dscore by means of multiple regression models. We defined the Dscore as an independent variable and several dependent variables (as Revenues, total assets, etc.) according to previous studies. Results show that not all the groups disclosed the items required by the international accounting standards examined. Furthermore, Leverage, Revenues, Market Values and ROS are the main determinants that influence the quality of disclosure.

Keywords* — *Determinants, IFRS 3, IAS 36, quality of disclosure

I. INTRODUCTION

The Financial statement is considered one of the most important channel to disclose financial information. Disclosure is an important topic [2]-[3] because it influences the behavior of an investor and supports economic decisions as, for example, whether to hold or sell their investment in the entity or whether to reappoint or replace the management [4]. Groups disclose information through different channels such as annual reports, analyst presentations, investor relations, interim reports, etc. In July 2012, the European Financial Reporting Advisory Group [5] published the discussion paper entitled "Towards a Disclosure Framework for notes" with the objective to "ensure that all and only information is disclosed in an appropriate manner, so that detailed information does not obscure relevant information in notes to the financial statements". The Discussion Paper underlines that there are three main objectives to reach: to identify what disclosures are relevant for the notes of the financial statement, to discuss the meaning of materiality of the information required and to develop a set of principles for a good communication of disclosure. With reference to the different typology of disclosure it is possible to identify:

- mandatory disclosure: mandatory information required by laws, international accounting standards, etc.;
- voluntary disclosure: companies disclose events that are not specifically required by laws, regulation, etc., but whose information could be relevant [6].

This paper focuses on the mandatory disclosure of the consolidated financial statements of Italian listed groups. We focused on mandatory disclosure because previous research demonstrated the level of compliance of mandatory disclosure depends on different factors such as control bodies, government authorities, etc. [6]- [7] and a great deal of research has demonstrated that even if the disclosure is mandatory, its quality is very low. Nevertheless there are only few studies on Italian groups and based under IFRS. In particular, our paper focuses on the analysis of the Italian stock exchange because to the best of our knowledge there is only one study published by Prencipe [8], but it refers to voluntary disclosure. The sample of this study was based on groups before the introduction of IFRS and focused on operating segments.

Thus we decided to investigate the quality of mandatory disclosure of IFRS 3, business combinations [9] and IAS 36, impairment of assets [10]. IFRS 3 outlines the accounting when an acquirer obtains control of a business (e.g. an acquisition or merger). Such business combinations are accounted for using

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the acquisition method, which generally requires assets acquired and liabilities assumed to be measured at their fair values at the acquisition date. A revised version of IFRS 3 was issued in January 2008 and applies to business combinations occurring in an entity's first annual period beginning on or after 1 July 2009. IAS 36 deals with the impairment of intangible assets. We chose IFRS 3 and IAS 36 as the financial crisis has increased the number of mergers and acquisitions between companies and disclosure play a key role in financial communication. Besides, many groups (not only Italian) wrote off the goodwill after the impairment test.

Our analysis was conducted on 2010 consolidated financial statements to verify the quality of disclosure of the last version of IFRS 3 and IAS 36. Thus the aims of the paper are: firstly to verify which are the qualities of mandatory disclosure of business combination and secondly, to identify the determinants that influence the quality of the mandatory disclosure concerning the recognition and measurement of goodwill (IFRS 3).

II. Background and Research Questions

Many studies have been conducted on voluntary and mandatory disclosure and on the accounting and disclosure of goodwill [10]. With reference to business combination, IFRS 3 defined the accounting rules for the recognition and measurement of goodwill. Furthermore the IFRS 3 establishes that the mandatory disclosure companies have to present in the notes of the financial statement. Given that disclosure is important but also poor in the financial statement with reference to goodwill, the aim of this paper is to verify whether in this context of financial crisis groups listed on the Italian Stock Exchange disclose the information with reference to the recognition, measurement and impairment of goodwill as stated by IAS/IFRS. We hand collected data from the 2010 consolidated financial statements of Italian listed companies that draw up the annual report in compliance with IFRS. We then proceeded to analyse the Italian groups listed on the main index of the Italian stock exchange (FTSE/MIB 40). With reference to IFRS 3 there are several studies. Among them we can quote Lee [11], based upon an extensive analysis of the published financial reports of one hundred of the largest companies in Britain, which analysed the degree of disclosure of business combinations and disposals during the last decade. Shalev [12] explores the causes and effects of business combinations disclosure level. Investigating the association between disclosure level on business combination and acquirers' future performance, he found that the acquirers' future performance as measured by the change in ROA and by abnormal stock returns increases with abnormal levels of disclosure on business combinations. Results provide evidence consistent with the disclosure theory and suggest that acquirers tend to provide less forthcoming disclosure on less favorable acquisitions ("bad news"). With reference to the accounting of goodwill, IAS 38 – Intangible assets [13] and IAS 36 – impairment of assets define the accounting rules under IFRS. IAS 38 has introduced the abolishment of the goodwill amortization and has introduced the impairment test at the level of a reporting unit. Among all the authors, Johnson [14] commented that meeting the assets definition it as a necessary condition but not a sufficient condition for goodwill to be recognized as an asset, and they underlined that improvements are required for the accounting of goodwill. Powell [15], provided an international (cross-country) review of accounting requirements for intangible assets and Bloom [16], defined how to account for goodwill in an era where the unidentifiable intangible asset is often an entity's largest value component.

With reference to disclosure, many studies have been carried out on voluntary disclosure. For example, Khairi [17] assessed the quality of disclosure pertaining to the high risk issue of goodwill impairment testing. The results indicate that the rate of compliance with the provisions of FRS 36 were very poor and did not reach the expectations of accounting standard setters. Some studies were carried out on mandatory and voluntary disclosure. The Financial Reporting Council (2008) analyzed 32 annual reports of UK entities within the top 350 UK listed companies. Companies were selected if they had reported significant amounts of goodwill in their 2007 annual financial statements. The results showed that the disclosure is poor and vague. In 17 cases, the information on goodwill is rather uninformative. Our paper contributes to the literature by focusing on the mandatory disclosure under IFRS and in the Italian context. In fact, to the best of our knowledge, research is not based on Italian groups.

To reach the objectives described the research questions are the following:

(Q1) what is the disclosure index of recognition, measurement and impairment of goodwill, of the 2010 consolidated financial statement of groups listed on the Italian stock exchange;

(Q2) what are the determinants that influence the quality of mandatory disclosure concerning the recognition and measurement of goodwill.

III. Data and Methodology

Data and sample

The examined sample is made up of the groups listed on the Italian Stock Exchange belonging to the main index: FTSE/MIB 40. The investigation was based on the consolidated financial statements of the entities belonging to the Italian Stock Exchange. In particular, the data of consolidated financial statements regarding 2010 were analyzed. The final sample is composed of 37 groups due to financial statement which is either due to not being in in compliance with IFRS or due to a lack of data (see Table 1).

TABLE 1.
Composition of the Sample Analysed

	Composition of the index	Sample analyzed	% sample analyzed
FTSE 40	40	37	92.50%
* The composition of the indexes refers to 31/12/2010			

With reference to disclosure we have hand collected the information required by IFRS 3 from the notes of consolidated financial statements or from the Italian Stock Exchange (e.g.

market capitalization). We collected the information required by IFRS 3, par. B 64 – B 66 , and by IAS 36, par. 126-137. The checklist was validated by comparing the checklists used by Kpmg [18], published in 2012 and the checklists used by Assirevi (Italian association of auditing firms) published in 2012 [19].

With reference to the information collected from the notes of the financial statement see the Table 2.

TABLE 2.
COMPOSITION OF THE SAMPLE ANALYSED AND IAS/IFRS

	Item collected	Sample analyzed	% sample analyzed
IAS 36	8	37	296
IFRS 3	40	37	1.480
Total	48	37	1.776

We identified eight main items of disclosure of IAS 36 and forty items of disclosure of IFRS 3. Overall, the total score was 48 whether all the information was present in the notes of the consolidated financial statement.. Thus, we have hand collected 1,776 pieces of information from the notes on the 37 groups analyzed.

Methodology

In order to rate the groups analyzed by the degree of the quality of disclosure provided on the recognition and measurement of goodwill we have defined an index of disclosure starting from the model defined by Cooke [1], Thus, if an item of mandatory disclosure of business combination as stated above was present, we assigned one point. Overall, we used a dichotomous approach and each piece of information was equally weighted and the maximum total of points was forty-eight. We also analyzed the presence of eight items of mandatory disclosure of the impairment of goodwill (IAS 36) and forty items for the recognition and measurement of goodwill (IFRS 3). The formula of the Dscore (Disclosure Score) index used in this paper is the following:

$$Dscore = \frac{\sum_{i=1}^{n} x_i}{x_{tot}}$$

In order to answer the second question of the research we have identified the independent variable as the Dscore mentioned above and the following dependent variables: total assets, sector, leverage, revenues, market values, assets, ROS and ROE. The dependent variable is the Dscore and the independent variables are divided into three groups.
The first group of independent variables focused on the weight of goodwill (GW/total Assets), the second group concerns the size of the firms (Revenue, MV and Total Assets) and the third group concerns the performance variables (Leverage, Ros and ROE).

The objective is to define the determinants of the quality of disclosure by using the following regression models:

$$M1: DSCORE_{it} = \alpha_0 + \beta_1 \frac{GW_{it}}{ASSETS_{it}} + \beta_2 SECTOR + \beta_3 LEVERAGE + \beta_4 REV + \beta_5 MV + \beta_6 ASSETS + \beta_7 ROS + \beta_8 ROE + \varepsilon_{it}$$

$$M2: DSCORE_{it} = \alpha_0 + \beta_1 \frac{GW_{it}}{ASSETS_{it}} + \beta_2 LEV + \beta_3 REV + \beta_4 MV + \beta_5 ASSETS + \beta_6 ROS + \beta_7 ROE + \varepsilon_{it}$$

$$M3: DSCORE_{it} = \alpha_0 + \beta_1 \frac{GW_{it}}{ASSETS_{it}} + \beta_2 LEV + \beta_3 REV + \beta_4 MV + \beta_5 ASSETS + \beta_6 ROS + \beta_7 ROE + \varepsilon_{it}$$

The definition of the dependent variables is coherent with previous studies. The items on the checklist were not weighted. We have chosen an unweighted index because the allocation of the weight can introduce subjectivity and bias [1]-[20]-[21] [22]-[23]-[24]-[25]-[26]-[27]-[28]-[29]-[30]-[31].

IV. RESULTS

4.1 Preliminary analysis

Table 3 reports descriptive statistics for the variables included in the regression models. The disclosure score mean is 0.665 which means that more than half of the firm analyzed disclosed at least 31 out of the 48 items used by us to calculate the disclosure score with a low variance. This is a surprising result because even if the disclosure is mandatory groups do not disclose all the information required by IFRS 3 and IAS 36.

According to Table 3 we can also observe the mean values of the independent variables used in the regression models, as well as standard deviation, 95% confidence interval, median and variance. In particular, we can notice that variance of Assets, market value, and Revenues is quite high; this is due to the different dimensions of the analysed firm. This is confirmed by the standard deviation.

TABLE 3.
DESCRIPTIVE STATISTICS

Variables	N	Mean	Std. Dev.	95% confidence interval		Median	Variance
DSCORE	37	.655	.463	.144	.703	.686	.021
GW/ASSETS	37	.11	.136	.067	.157	.038	.018
LEV	37	.271	.196	.206	.336	.237	.038
SECTOR	37	.30	.463	.14	.45	.00	.215

REV (*)	37	16.27	25.1	7.92	24.6	4.8	62.5
MV (*)	37	8.88	12.8	4.6	13.2	3.55	164
ASSETS (*)	37	91.69	189	28.4	154	14.94	36
ROS	37	.176	.149	.127	.227	.136	.022
ROE	37	.095	.115	.057	.133	.096	.013

(*): Expressed in billion euros

4.2 Regression model analysis

In order to assess if the variables are more meaningful to understand the disclosure score we have used a regression model that consider DScore as dependent variable and other quantitative values as independent variables (goodwill on assets, sector, leverage, revenues, market values, assets, ros and roe). The results are shown in Table 4.

TABLE 4.
M1 ESTIMATION RESULTS

Variables	M1
β_1	-0.054
β_2	0.430*
β_3	0.284
β_4	0.411
β_5	-0.317
β_6	0.037
β_7	-0.457**
β_8	-0.025
N	37
R^2	.438
F (H_0: $\beta_i = 0$)	2.727**

Notes: *** Denotes p-value < 0.01 ** Denotes p-value < 0.05 * Denotes p-value < 0.1.

We can notice that the R squared obtained is quite high and significant (the results of the F-test lead to the rejection of the null hypothesis for the analysed model (M1) at 0.01 level showing the significance of the model). Sectors and ROS are the only variables for which the hypothesis test of null coefficients (H_0: $\beta_2 = \beta_7 = 0$) is significantly rejected. In order to understand if belonging to certain a sector (industrial or financial), could increase the significance of the results obtained we have split the sample into two groups (in the first case we consider only firms belonging to the industrial sector, and in the second case we analyzed financial firms) and we ran the regression model once more. Table 5 and 6 report the results of the regression models (M2 – Industrial Firms and M3 – Financial Firms).

TABLE 5.
M2 ESTIMATION RESULTS

Variables	M2
β_1	-0.038
β_2	0.331**
β_3	0.954*
β_4	-0.784**
β_5	0.094
β_6	-0.539**
β_7	0.125
N	26
R^2	0.543
F (H_0: $\beta_i = 0$)	5.245***

Notes: *** Denotes p-value < 0.01 ** Denotes p-value < 0.05 * Denotes p-value < 0.1.

Table 5 reports the results of the regression model used in order to identify if all the independent variables could explain the disclosure score (M2) in reference only to industrial firms. Below, we can observe (Table 6) the results of the same regression model applied to firms belonging to the financial sector.

TABLE 6.
M3 ESTIMATION RESULTS

Variables	M3
β_1	0.077
β_2	0.040
β_3	-0.095
β_4	-2.142
β_5	2.109
β_6	-0.630
β_7	0.204
N	11
R^2	0.573
F (H_0: $\beta_i = 0$)	0.576

Notes: *** Denotes p-value < 0.01 ** Denotes p-value < 0.05 * Denotes p-value < 0.1.

As we can see, comparing the tables above (Table 5 and Table 6), the results from the regression model are more significant for industrial firm.

In this case, in fact, the F-Test value reported – and the linked p-value – show us that the regression model analysed is significant. Leverage, Revenues, Market Values and ROS are the independent variable for which the hypothesis test of null coefficients is significantly rejected.

Less significant, according to Table 6, are the results arising from the same type of regression model applied to financial firms. In fact, according to M3 results, we can notice that F-test and the relative p-values are not meaningful. We should also underline that the sample analysed is not so extended; for this reason some of the results obtained could be improved with a wider sample.

V. CONCLUSION

This research shows that even if the information required by IFRS 3 and IAS 36 is mandatory, not all the groups disclosed the items required by the international accounting standards. In fact, the mean of Dscore is "only" 0.665. Thus we analyzed the determinants that influence the Dscore by splitting the sample into industrial firms and financial firms. The results are more consistent with reference to industrial firms than the financial companies. The variables that influence the presence of the disclosure in industrial firms are Leverage, Revenues, Market Values and ROS. In other words, the results suggest that the higher the market capitalization, leverage, revenues and ROS, the higher the attitude of the group to disclose the mandatory information. The results are consistent with previous research which showed that the size of firms [1] and Performance variables [26]-[28] are the most important variables that influence the quality of mandatory disclosure in the annual report. These results are important for the Standard Setters, for Auditors, for accountants, who must verify the transparency of the annual report and the compliance withthe International accounting standards.

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Even if this paper is the result of a joint work it is possible to attribute par. II, III and V to Alain Devalle and I, III IV to Fabio Rizzato.