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# MULTIPLE EVALUATION OPTIONS & COMPARABILITY: EQUITY INVESTMENTS IN ITALY AND SPAIN

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## ABSTRACT

*The harmonization among the European financial statements based on International Accounting Standards/International Financial Reporting Standards (IAS/IFRS) became an urgent issue when the European Union issued the Regulation (EC) no 1606/2002 which required all listed companies to prepare consolidated accounts in accordance with International Accounting Standards beginning in 2005. The enforcement of the same set of accounting standards does not necessarily lead to comparability if we intend it as a harmonization of the accounting practices. As a matter of fact, European companies could still choose divergent accounting behaviors because IAS/IFRS offer multiple options for the evaluation of the same items, or because the accounting practices of those firms do not comply with the standards. The objective of this paper is to investigate if the level of comparability in consolidated financial reporting practices – as a result of de facto harmonization – has increased after the mandatory introduction of IAS/IFRS. To provide some evidence, the case studies of Italy and Spain have been elected since they are both Code law countries. First of all we test the level of de facto harmonization related to the accounting choices made by 129 Italian and 54 Spanish listed groups, from 2004 to 2009, that is pre and post IAS/IFRS application, in order to verify if the comparability between countries in policy choices, as measured by van der Tas C index, has changed after the application of IAS/IFRS, from the point of view of the users of the financial statements. Starting from the assumption that the de facto*

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*harmonization of the accounting practices increases the comparability among firms and among countries, the current study contributes to the literature by exploring the following main research question: Do harmonized accounting standards lead to comparable accounting practices, even when multiple evaluation options are provided? More precisely, comparability has been measured referring to the items of equity investments in subsidiaries, in associates, in joint ventures, and in other equity interests, since the participation item is an excellent setting for this kind of investigation. First results seem to reveal that we are still quite far from the expected and desired comparability. These findings could be helpful for the decisions of institutional regulatory bodies.*

*IFRS, Comparability, Harmonization, Equity investments*

## INTRODUCTION

With the mandatory introduction of the International Accounting Standards/International Financial Reporting Standards (hereafter IAS/IFRS), a fundamental step has been taken towards harmonization among countries with different accounting traditions in the preparation of consolidated financial statements. In fact, a large number of listed firms, exhibiting significant heterogeneity in size, capital structure, ownership structure and accounting sophistication, have been applying IAS/IFRS since 2005. In the intention of the European Legislator, the standardization process should have led to comparability of annual reports in countries belonging to the European Union. Although European countries with heterogeneous accounting traditions have been invited to use the same set of principles when drawing up financial statements, we can still observe institutional, social, cultural and environmental differences in various geographic areas. From this point of view, it is natural to ask if the introduction of the IAS/IFRS has been enough to overcome the differences among the countries or if these differences still persist in the accounting choices of companies applying the same set of accounting standards.

In the accounting literature, the harmonization can be researched in terms of the standards that have been adopted, or in terms of the accounting behaviors (Nair & Frank, 1980; Tay & Parker, 1990; Nobes, 2004; Fontes *et al*., 2005; Ding *et al*., 2007; Jaafar & McLeay, 2007). In the first case, we deal with a process which leads to the harmonization of the accounting standards. This interpretation has been called *de jure* harmonization (van der Tas, 1992). In the second case, instead, the harmonization of accounting choices does not depend on the existence of a same set of accounting principles. The *de jure* harmonization is usually expected to lead to the *de facto* harmonization, however this is not always true. As a matter of fact,

the *de jure* harmonization can be accompanied by disharmony in the accounting practices when specific accounting standards allow multiple accounting evaluation choices. On the other side, the *de facto* harmonization can exist without determining an increase in the level of *de jure* harmonization. This phenomenon is known as "*spontaneous harmonization*" (Canibano & Mora, 2000: 4). Moreover the degree of harmonization can be acknowledged through the divergence among practices in various countries, but also by investigating the behavior in the same geographical context.

The logical consequence of the *de facto* harmonization is an increase of the *comparability* of financial statements (Choi *et al.*, 2002). Comparability is a characteristic of the accounting disclosure which allows financial statement users to be able to recognize the differences among companies, without taking into consideration that these differences could come from the specificities of the accounting rules.

The mandatory application of the same set of accounting rules, however, does not necessarily lead to harmonization in the accounting practices, because, as stated above, companies could still choose divergent accounting behaviors, especially in the case of standards that offer multiple options for the valuation of the same items, each of which is compliant with the standard (Land & Lang, 2002). Consequently, the pursuing of harmonization, and hence comparability, is entrusted to the standard setting process, as well as to the practical application of the standards themselves (Rahman *et al.,* 2002; Thorsten & Gornik-Tomaszewski, 2006; Jagannath & Nanjegowda, 2008; Paananen & Henghsiu, 2009). However, the standard setting process aims to increase the compliance between regulations and accounting practices by means of *de jure* harmonization, the *de facto* harmonization takes place when the accounting behaviors converge, even if the accounting regulation allows multiple evaluation options. While standard setters are mainly concerned with *de jure* harmonization, users of financial statements benefit most from *de facto* harmonization.

Starting from these considerations, this paper will focus on the effects of *de facto* harmonization with the aim to investigate if the *de jure* harmonization of the accounting standards has lead to comparability as a result of *de facto* harmonization of the accounting practices. Therefore, in order to better understand the factors which affect the comparability of annual reports, we are going to test the level of *de facto* harmonization, and therefore comparability, in the accounting behaviors of Italian and Spanish consolidated financial statements of listed groups with reference to the accounting for the equity investments.

We decided to compare Italy and Spain during their transition period to the IAS/IFRS for their similarities in terms of ownership and control structures, banks orientation, accounting systems and capital market structures. As a consequence, in both countries the first application of IAS/IFRS has produced several adapting issues. As a matter of fact the International Accounting System is quite different

from the Italian and Spanish ones as well as the Common law countries (Anglo-Saxon countries and IASB framework) differ from the Roman (code) law countries (European Continental countries, especially Italy and Spain) (Alexander & Nobes, 2007). Moreover the International Accounting Standards which refer to the evaluation of equity investments, IAS 27 (*Consolidated and Separate Financial Statements*), IAS 28 (*Investments in Associates*), IAS 31 (*Interests in Joint Ventures*) and IAS 39 (*Financial Instruments: Recognition and Measurement*), are very specific and well articulated. They provide so many evaluation options for the assessment of the equity interests that an investigation on the degree of harmonization of the choices made by each firm becomes extremely useful.

The study is divided into 5 main sections. The first two parts of section 1 analyze the literature review on the accounting systems, the accounting harmonization and the methods for the measurement of the accounting harmonization which have been developed in the theory since the end of the 1980s. Section 2 presents the methodology in terms of assumptions and research themes. Section 3 is dedicated to a review on the accounting treatment on the subject of consolidation of equity investments in subsidiaries, associates, joint-ventures and of other equity interests in Italy and Spain, highlighting the main differences in comparison with the International Accounting Standard recommendations. Section 4 illustrates the empirical survey carried out on 129 Italian and 54 Spanish listed groups, with the purpose of measuring the level of comparability between countries. Finally, section 5 offers a summary, some concluding remarks and the limits of the research.

## 1. THE THEORETICAL BACKGROUND

### 1.1 The literature review

Widespread international adoption of IAS/IFRS offers equity investors a variety of potential advantages. As Ball (2006: 11) pointed out "*IFRS promise more accurate, comprehensive and timely financial statement information, relative to the national standards they replace for public financial reporting*". In general, IAS/IFRS offer increased comparability and hence reduced information costs and information risk to investors, provided that the standards are implemented consistently. This would also increase share prices, and would make new investments by more attractive firms. On the cons' side, the Author envisages problems with the current fascination of the international standards with "fair value accounting" in order to enhance the relevance of reported numbers since fair value is perceived as more relevant to investors and creditors than historical cost information. However, a key issue for convergence is whether fair value measurements can be accepted as having sufficient reliability. In addition, a deeper concern is related to the substantial differences among firms and among countries in the practical implementation of fair value. The belief that uniform standards alone will produce uniform financial reporting seems naive.

The empirical survey of Larson & Street (2004) shows that the two most significant impediments to convergence appear to be the complicated nature of certain IAS/IFRS (including financial instruments) and the tax-orientation of many national accounting systems. Other barriers to convergence include underdeveloped national capital markets, insufficient guidance on first-time application of IAS/IFRS, and limited experience with certain types of transactions (e.g. pensions). Other empirical studies (Barth *et al.*, 2008) indicate that firms applying IAS/IFRS have higher accounting quality in terms of less earnings management, more timely loss recognition, and higher value relevance, compared to firms that apply domestic standards. Moreover data show that the accounting quality has improved after firms adopted IAS/IFRS.

The requirement of applying IAS/IFRS starting 2005 in European Continental countries – such as Italy and Spain – is producing several adapting issues because there are quite a lot of differences between the International Accounting System and the local Accounting Systems (Nair & Frank, 1980; Nobes, 1988; Alexander & Nobes, 2007; Jaafar & McLeay, 2007; Nobes *et al.*, 2008).

Accounting differences could be explained by different institutional factors, including divergences in financing and legal systems. Zysman (1983) proposes three types of financing systems: the capital market system (e.g. UK, US), the credit-based governmental system (e.g. France and Japan), and the credit-based financial institutional one (e.g. Germany). Nobes (1988) proposes two types of financing systems: the shareholder 'outsiders' system (e.g. UK, US) and the bank/state/family 'insiders' one (e.g. Germany and France).

More recent researches (Franks & Meyer, 2001) are consistent with a continued but less pronounced dichotomy. Nobes (1998b) suggests that, unless a country is culturally dominated by another, its financing system is the main driver of its financial reporting system. Some evidence now supports this suggestion (Xiao *et al.*, 2004; Brown & Tarca, 2005).

The literature also divides the legal systems into two main types: Common law and Roman (code) law countries (David & Brierleyc, 1985; La Porta *et al.*, 1998; Demirguc-Kunt & Levine, 1999). Countries with a system based on *Common law* and with a well-developed capital market are characterized by wider ownership structure, separation between ownership and control, investor orientation, weak influence of banks among other financial investors. Common law countries have issued accounting rules independently from tax rules, under the auspices of professional bodies. As a consequence, financial accounting is not influenced by tax accounting, namely the valuations of the single items are free from fiscal prescriptions and capital markets are significantly developed.

Conversely, countries with a code-based legal system and with a business financing structure that is primarily based on banking, are characterized by limited investor

protection, an insider orientation, a strong tax influence on accounting and, therefore, by the presence of governmental rather than professional regulatory bodies. *Roman (code) law* countries, more specifically, are generally characterized by concentrated ownership structure (frequently the family owns both the property of the equity and the control of the firm), creditors orientation, strong impact of debts on financial structure, dependency from the banks as the main source of financing, underdeveloped financial capital market, not only in terms of number of listed companies but also in terms of investors or financing institutions alternative to the banks. This affects the regulation of financial reporting (Jaggi & Law, 2000; Bushman & Piotrosky, 2006).

Different studies (Arce & Mora, 2002; Garcıa & Mora, 2004) focusing on divergences in international accounting conservatism, reveal that Common law countries are less conservative than Roman (code) law countries. In particular, starting from that cultural background, the main natural effects on the accounting system in Roman (code) law countries can be summarized as follows:

- standards derive from the rule-based approach;
- accounting system has a high degree of conservatism or prudence; moreover, the public accounting system has a more macroeconomic approach, since the standards are produced by official bodies with legislative capacity;
- historical cost is the only coherent basis for measurements;
- financial reporting is manly addressed to users, other than investors.

On the other hand, IAS/IFRS seem to reflect the Anglo-Saxon system – that characterizes Common law countries – according to which investors are considered the main users of financial information. The objective of financial reporting is to provide information about the financial position and performance of an entity that is useful to users in their decision making process.

In order to meet their objectives, financial reporting is prepared using the accrual basis of accounting. This implies large reference to the market valuation, above all referring to the fair value criterion. Moreover, prudence has a different meaning compared to the same concept in Roman (code) law countries, that makes it underweighted in respect to accrual concept. Italy and Spain being Roman (code) law countries *par excellence*, the shift to IAS/IFRS implied radical changes in the accounting system. One of the main differences concerns the role of market reference for the evaluation of assets and liabilities. Both the Italian and Spanish systems have traditionally been based on the historical cost principle, according to which a reference to the market is allowed just to accomplish to the legal prescription of the prudence rule that prevails on the accrual concept, while the revaluations aimed to accomplish the market current value are not allowed unless authorised by a specific law (Di Pietra, 1997; Callao *et al*., 2007; Navarro Garcia & Bastida, 2010). Moreover, usually, the form prevails over the substance in the

accounting representation of economic matters, especially in the accounting for consolidation purposes.

### 1.2 Measuring comparability

Several methods have been developed to measure the comparability of financial reporting and, among them, we can distinguish between the indices and the statistical models. These methods cannot be used interchangeably since they measure different concepts of ‘comparability’ and ‘harmony’.

Van der Tas was one of the first researchers who used indices to measure the comparability of financial statements. According to van der Tas (1988), two financial reports are comparable to one specific event if this event, under the same circumstances, is accounted for in the same way in both reports or if multiple reporting takes place. Multiple reporting means that a company gives additional information based on an accounting method other than its primary accounting method. According to van der Tas, harmonization takes place when there is an increase in the consensus regarding the choice between alternative accounting methods. Van der Tas uses indices because he believes that maximum harmony is reached when all companies select the same accounting method.

On the other hand, McLeay *et al*. (1999) use a statistical model because they believe that harmonization takes place when there is an increasing similarity in the distribution of the probability that a particular accounting method is used. These researchers argue that it is the availability of alternative accounting treatments and the use by individual firms of the appropriate method that produces comparable financial statements.

When comparing these definitions, it is clear that supporters of the indices tend more to uniformity, while supporters of statistical models prefer flexibility.
Most of the papers which deal with the area of financial accounting harmonization have mainly been focused on the use of indices. According to researchers who use indices to measure the comparability of financial statements, comparability increases when the alternative accounting methods applied by companies become concentrated on one or only a limited number of accounting methods.

In order to measure the comparability, the number of allowed methods does not necessarily have to decrease since the number of applied methods is considered. Van der Tas introduced the Herfindahl index (H index) in 1988 (than adjusted by Hirschman) as a measure of the comparability of financial statements. A relative frequency consists of the number of companies choosing a particular method divided by the total number of companies. The H index rises when the applied methods become concentrated on one or only a limited number of alternative

methods. The H index is very simple but its main restriction is that it gives indications on the lever of harmonization within just one country. Although this method is usually applied to quantify national comparability, the H index can also be used to measure international comparability ignoring the nationality of the company. Another disadvantage is that the index does not consider multiple reporting since each company can only be assigned to one alternative accounting method.

In order to facilitate the comparison among countries, van der Tas (1988; 1992) introduced the I index and the Comparability or C index, the last one in the two versions: within and between-countries. H and C index can be used to measure harmony within individual countries while I and "C index between countries" can be used to measure harmony between two or more countries. Van der Tas (1992) and other researchers (Herrman & Thomas, 1995; Emenyonu & Gray, 1996) applied those measures in other papers. Morris & Parker (1998) presented the statistical properties of van der Tas (1988) index, and Archer *et al.* (1995) first decomposed the C-index into within-country and between-country components and then (Archer *et al.*, 1996) developed their methodology by using log–linear models: the results seem to combine reliability with simplicity.

Other researches on harmonization measurement have been based on two main aspects (Aisbitt, 2001), reliability and validity of measurement. Reliability studies are concerned with the technical construction of indices and their application (Herrman & Thomas, 1995; Emenyonu & Gray, 1996) while validity relates to the ability (or inability) of the indices to capture increases or decreases in harmony.

Some other researches (Archer *et al*., 1995; Pierce & Weetman, 2002) highlighted limitations of the indices in case of non disclosure, that poses significant limits to the interpretation of empirical testing of *de facto* harmonization of financial reporting within and between countries: in some cases the item investigated is not applicable to the company; in other case it is applicable but not disclosed (Pierce & Weetman, 2002). In order to consider such limitation, indices with correction for non disclosure have been developed (Archer *et al*., 1995; Morris & Parker, 1998). Taplin (2003) proposed corrections to van der Tas indices in order to estimate the standard error of the H and C indices calculated on a sample. Subsequently, he provided (Taplin, 2004; 2010) a unified treatment of possible indices – the T index - clarifying the relationship between existing indices and some new ones that he proposed.

Within the harmonization literature, other measurement instruments have been proposed (Mustata *et al*., 2011). Ashbaugh & Pincus (2001) use the *Method index* to capture differences between accounting standards and IFRS across countries due to differences in measurement methods. Garrido *et al*. (2002) test the application of the Euclidian distances (as an econometric tool) to the level of the *de jure*

harmonization achieved by the IASB. As a result of an analysis of IASB pronouncements on 20 accounting issues, they demonstrate that a reduction of the accounting options allowed by the board improves the comparability.

Still assuming the instruments based on the measurement of the Euclidian distance, recent studies have formulated an innovative index – the ED index – (Mustaţă & Matiş, 2010), with the purpose of considering the comparison between succeeding temporal measurements, even when the number of observed items changes over time.

Furthermore, starting from the assumption that the Euclidian distance allows "temporal" comparisons only if the number of the considered variables is constant from one period to another, Fontes *et al*. (2005) propose to make use of Jaccard's and Spearman's coefficients with the aim of measuring the level of comparability between the IAS/IFRS and certain domestic accounting standards in the case of Portugal. With reference to Jaccard's coefficient, as Mustaţă *et al*. (2011) note, one limit is that it does not include the hypothesis of conjoint absence or presence of an accounting treatment in the accounting regulations observed. This limit is overcome by using Sokal and Sneath's coefficient.

Ding *et al*. (2007) analyze the determinants and the effects of the main differences between IFRS and certain domestic standards, creating two kinds of "indicators" – *divergence* and *absence*. With reference to a sample of 30 countries, the authors verify that the *divergence* is positively associated with the importance of the accounting profession, while the *absence* is associated with the relevance of the equity market and the ownership concentration. Nobes (2009) points out how these "indicators" –*absence* and *divergence* – create an artificial doubling up of hypotheses.

As stated above, the aim of the present study is to observe existing practice, analyzing *de facto* harmonization since, according to Ball *et al*. (2000), there are several advantages from the observation of actual reporting compared to the simple study of the regulations. Most of the accounting practice is not determined by rules; practice is more detailed than rules, rules delay innovations in practices while companies do not invariably follow the rules. Starting from this point of view, in order to better understand the factors which basically affect the comparability of annual reports, this study is going to test the compliance with the accounting standards and the level of *de facto* harmonization among companies and among Roman (code) law countries using the C index for the following reasons:

- The C index is a very simple method and very easy to use.
- It is particularly indicated to consider multiple reporting since a company can be assigned to more than one alternative accounting method.
- It is very suitable for the measurement of the harmony between two or more countries.

The Comparability or C index was developed by van der Tas in 1988. It is not a concentration index but it is based on the number of compatible pairs of companies and the number of pairings possible. This index measures the probability that two randomly selected companies (without replacement) have accounts that are comparable. The C index also ranges from 0 to 1 and approximately equals the H index if the number of companies is large enough and no multiple reporting takes place.
If multiple reporting is not considered, the C index formula is:

$$C = \frac{(\sum_{i=1}^{n} ai^2) - m}{m^2 - m}$$

where $a_i$ are the number of companies applying the accounting method i, n is the number of alternative accounting methods and m equals to the total number of companies. If multiple reporting is considered, some companies will have to be subdivided into more than one class of alternative accounting methods.

## 2. THE METHODOLOGY. ASSUMPTIONS AND RESEARCH THEMES

Nearly all researchers have looked at comparability of financial statements on an item by item base. They do not measure comparability for the aggregate of all sorts of transactions and events. Although this is a simplification of reality, it leads to more sophisticated results (Canibano & Mora, 2000). On this basis, the aim of this study is to understand if the application of the IAS/IFRS has had any positive effect on the level of *de facto* harmonization of accounting practices, and, as a consequence, on the comparability of financial statements among companies of two different European continental countries.

Starting from the assumption that, after initial adaptation problems, the level of compliance with the accounting rules has increased during the period of observation, we assume that a decrease in the level of comparability between financial statements can be attributed to the different accounting choices provided by the single financial accounting principles. Therefore, we will measure the level of *de facto* harmonization among countries related to the accounting choices made by companies listed at the Italian and the Madrid Stock Exchange, with particular reference to the consolidation of investments in subsidiaries, associates, joint ventures and other equity interests.

The observation period goes from 31/12/2004, the last pre-IAS/IFRS year, to 31/12/2009. We aim to investigate if the companies demonstrated to be so harmonized and comparable as in 2004, 5 years after the mandatory adoption of the IAS/IFRS. Moreover we also want to highlight if the degree of comparability has been increasing, decreasing or remaining substantially unchanged since 2005.

In order to present a contribution to the accounting literature debate about the relationship between *de jure* and *de facto* harmonization and assuming that the logical consequence of *de facto* harmonization is an increase of financial statements comparability, we provide an answer to the main research question of our paper: Has *de jure* harmonization of the accounting standards in 2005 led to comparable accounting practices in 2009, even when multiple evaluation options are provided?

The answer starts from the three following assumptions:

A1) The first assumption concerns the compliance. *We assume that Italian and Spanish companies have faithfully applied the prescribed financial accounting standards during the observation period, both for domestic accounting standards in 2004 and for international accounting principles during the period 2005 – 2009.*

A2) The second assumption involves comparability and multiple evaluation choices. *We assume that comparability decreases when firms can choose between multiple evaluation options allowed by international accounting rules.* Therefore we are going to test the degree of consensus on the application of IAS 27, IAS 28, IAS 31 and IAS 39.

A3) Finally, the third assumption concerns the relationship between harmonized accounting standards and comparability. *We assume that if full de facto harmonization is expected to lead to comparability of financial statements, the harmonization of the accounting standards is not a guarantee of comparability.*

In order to provide evidence for the previous three assumptions, we investigate the following themes:

T1) Are all subsidiaries included in the consolidation area?

T2) Are all associates consolidated with equity method?

T3) Are all joint ventures consolidated according to one of the two available methods?

T4) Are all other equity investments valuated at fair value?

The measurement methodology described in section 1.2 has been applied to all Italian and Spanish listed industrial groups, with the exception of the companies that are linked to the *FTSE Italia Finanza*, *FTSE Italia Banche* [i], *FTSE Italia Assicurazioni, FTSE Italia Servizi Finanziari* and SIBE Servicios Financieros, Immobiliarias y Seguros. Furthermore, we decided to exclude IPO companies listed after 31/12/2004, in order to make the sample homogeneous, and MTA International sector groups, in order to keep the IAS/IFRS conformity tests fair. Non-operating holding companies were also excluded, as they are not representative. Finally, still aiming at keeping the sample homogeneous, we excluded all the companies whose financial statement date differs from the 31st of December and the groups which became operational or derived from extraordinary transactions such as mergers or acquisitions during the observation period. Moreover regarding the Italian case, two companies were excluded because their consolidated financial statements were not available yet, and another one because the yearly documents were not legible. Thirteen cases where documents were not legible or available were

excluded among the Spanish groups. At the end of the year 2009, the 129 chosen Italian groups, expressed a market capitalization of 52% over the total amount, while the 54 Spanish groups reached a share of 31% of the market capitalization. Therefore we assert that these companies could be representative of the best accounting practices in Italy and Spain.

## 3. THE ACCOUNTING FOR EQUITY INVESTMENTS

The consolidation of interests in subsidiaries (IAS 27), associates (IAS 28), joint ventures (IAS 31) and other equity investments (IAS 39), raises a relevant problem regarding harmonization and comparability, with both conceptual and operational implications. Currently, the IAS 27 does not allow any case of exclusion from the consolidation area except for the cases of "limitations to control" and "not material interests" which, moreover, fall outside the content of IAS 27. Differently, both the Italian and the Spanish national discipline have allowed five cases of exclusion, respectively, until 2007 and 2009. At the moment few differences still remain.

Considering the Italian regulation on subsidiaries, when the Civil Code and the Italian Accounting Standards were established, book-keeping recommendations were generally provided in order to predominantly favor formal rather than substantial representation. The most representative case involved the definition of the consolidation area and the relative legislative limitations, with particular reference to the exclusion of subsidiaries operating in dissimilar industries. In the formulation of the Italian regulations, mandatory exclusion was aimed to preserve true and fair view, and the relevance of values inserted in the consolidated financial statements.

The unsuitability of the presentation of the consolidated financial statement, it is argued, cannot preclude the knowledge of the overall group situations. Today, the problem has been definitively overcome, thanks to the elimination of this single hypothesis of mandatory exclusion. The exclusion of dissimilar activities was eliminated through Legislative Decree 32/2007, starting with the fiscal year 2008 which eliminated any reference to the mandatory exclusion from the article 28 of Legislative Decree 127/1991. Moreover, at the moment, the Italian national discipline is almost aligned to IAS 27 with reference to the exclusion for dissimilar activities.

With regard to the Spanish case, the domestic regulation was quite similar to the Italian one: the Real Decreto no. 1815/1991 (and its amendments) in force till 2009 provided optional exclusions of subsidiaries from consolidated financial statement in order to better represent value relevance. Actually, the Real Decreto no. 1851/1991 has been recently amended by the Real Decreto no. 1159/2010, which no longer provides exceptions to the application of the full consolidation method.

With reference to the consolidation of participations in subsidiaries, *Table 1* presents the main differences between IAS 27 and the Italian and Spanish regulations in force over the period examined.

*Table 1.* **The exclusion hypotheses from the consolidation area**

| | **Italian L.D. no 127/1991** | | **Spanish R. D. no 1815/1991** | **IAS 27** |
|---|---|---|---|---|
| | *Before 31/12/2007* | *After 1/01/2008* | *2004 – 2009* | *2004 - 2009* |
| Dissimilar activities | Mandatory exclusion | Not provided hypotheses | Optional exclusion | Prohibited exclusion |
| Not material investments | Optional exclusion | | Optional exclusion | Optional exclusion IASB Framework |
| Control under severe and lasting restrictions | Optional exclusion | | Optional exclusion | Mandatory exclusion |
| Disproportionate time and costs for data collection | Optional exclusion | | Optional exclusion | Not provided hypotheses |
| Investments held for sale | Optional exclusion | | Optional exclusion | Mandatory exclusion IFRS 5 |

IAS 28 prescribes that participations in associate companies are evaluated exclusively through the equity method[ii]. Even in cases of participations in associates, we find a substantial difference as compared to the corresponding Italian accounting standard, which prescribes the cost method as an alternative to the equity method, that is considered the benchmark treatment. Considering the Spanish regulation in force for the period examined, the requirement is more consistent with IAS 28 because it prescribes exclusively the equity method to evaluate investments in associates. The only exception for not applying this method is related to the irrelevance of investments[iii]. As a result, also with reference to investments in associate companies, there is a potential problem of harmonization which should be verified through the empirical research on consolidated financial statements.

IAS 31 prescribes the recognition, in the venturer financial statement, of investment held in joint venture through one of the two methods between the proportional consolidation or the equity method. The Italian framework, on the other hand, prescribes the application of the equity method if the company chooses not to consolidate the jointly controlled entities, and the proportional method for the consolidation of joint ventures. The consequence is that during the transition to IAS/IFRS the Italian listed groups had also the chance to choose the equity method. In the same way, the Spanish regulation recommends the proportional criterion to consolidate joint venture investments; if it cannot be implemented, the regulation addresses to the equity method.

The empirical investigation will test the degree of harmonization and comparability, also in order to understand which one of the two consolidation methods is preferred in practice. Finally, we are going to test the level of harmonization in the accounting for other equity investments which are classified as financial instruments and included in the consolidated annual reports in accordance with IAS 39. Although this is a residual item, and therefore not very relevant in the overall empirical analysis, we expect major problems in comparability. As a matter of fact, according to IAS 39, financial instruments which are classified as held for trading or available for sale, should be measured at fair value while the Italian and Spanish domestic regulations require the evaluation of the item at the lower between acquisition cost and market value. All these main differences are summarized in *Table 2*.

*Table 2.* **The consolidation of Associates, Joint ventures and Other equity investments**

| | **Italian GAAP** | **Spanish GAAP** | **IAS / IFRS** |
|---|---|---|---|
| Associates | equity method (benchmark treatment) or cost method | equity method | equity method |
| Joint Ventures | proportional method (benchmark treatment) or equity method | proportional method (benchmark treatment) or equity method | proportional method or equity method |
| Other equity investments (held for trading or available for sale) | lower between acquisition cost and market value | lower between acquisition cost and market value | fair value (cost if fair value is not reliable) |

## 4. THE ANALYSIS OF THE RESULTS

In the present survey the van der Tas C index has been applied in order to verify the level of *de facto* harmonization, and accordingly comparability, among the company groups analyzed in this research. The comparability of financial statements depends on the levels of *de facto* harmonization. In order to express a judgment about the level of harmonization, we assume the value interval, $0 \leq C \leq 1$, according to van der Tas (1988; 1992) as described in the above *Table 3*:

*Table 3.* **The value interval**

| ***The level of harmonization*** | |
|---|---|
| **NO HARMONIZATION** | **FULL HARMONIZATION** |
| 0 | 1 |

Regarding to the equity interests in subsidiaries, the first theme investigated reveals a high level of both *compliance* and *comparability* in the observed period, especially if compared to 2004 (see *Table 4*).

*Table 4.* **The comparability for investments in subsidiaries**

| **T1) Subsidiaries** | | **2009** | | | **2008** | | | **2007** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| Are all subsidiaries included in the consolidation area? | | | | | | | | | | |
| | *Yes* | 124 | 52 | 176 | 115 | 52 | 167 | 116 | 52 | 168 |
| | *No* | 5 | 2 | 7 | 14 | 2 | 16 | 13 | 2 | 15 |
| | TOT | 129 | 54 | 183 | 129 | 54 | 183 | 129 | 54 | 183 |
| | | **C index** | **0.926** | | **C index** | **0.840** | | **C index** | **0.849** | |
| | | 2006 | | | 2005 | | | 2004 (Local GAAP) * | | |
| | | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| | *Yes* | 116 | 52 | 168 | 120 | 52 | 172 | 126 | 54 | 180 |
| | *No* | 13 | 2 | 15 | 9 | 2 | 11 | 3 | 0 | 3 |
| | TOT | 129 | 54 | 183 | 129 | 54 | 183 | 129 | 54 | 183 |
| | | **C index** | **0.849** | | **C index** | **0.886** | | **C index** | **0.968** | |
| *In 2004 the comparability has been tested through the following research theme: "Are all subsidiaries included in the consolidation area, even if five cases of exclusions were allowed?" | | | | | | | | | | |

Even if the trend of the C index is slightly decreasing over time, it is almost close to 1 – full comparability – passing from 0.968 in 2004 to 0.926 in 2009.
The small reduction of the C index during 2005, 2006, 2007 and 2008 is probably due to the transition to the IAS 27, since the index increases in the subsequent 2009. In this sense, the Italian and Spanish firms appear *significantly harmonized.*

Moreover, the data show an almost complete level of compliance with the international accounting rules. In 2009 only a few firms, 4%, exclude the interests in subsidiaries from the consolidation area, for reasons that are not linked to the issues of materiality or limitations of control, even though the IASB guidelines, coherently with an *all inclusive* approach, impose the consolidation of all controlled entities. We suppose that such accounting behaviors are attributable to the previous accounting standards. In fact, before the mandatory introduction of the IAS/IFRS in Italy and Spain, the form prevailed over the substance, especially in the accounting for the consolidation purposes. As an example, until the 2007, the Italian law prohibited the consolidation of the subsidiaries that operated in industries different from the one of the parent, simply because their financial statement differed in their presentation.

With regard to the second research theme, *Table 5* shows the results.

*Table 5.* **The comparability for investments in associates**

| **T2) Associates** | | **2009** | | | **2008** | | | **2007** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| Are all associates consolidated with equity method? | | | | | | | | | | |
| | *Yes* | 97 | 40 | 137 | 83 | 40 | 123 | 85 | 39 | 124 |
| | *No* | 7 | 2 | 9 | 8 | 2 | 10 | 8 | 2 | 10 |
| | TOT | 104 | 42 | 146 | 91 | 42 | 133 | 93 | 41 | 134 |
| | | **C index** | **0.884** | | **C index** | **0.860** | | **C index** | **0.861** | |
| | | 2006 | | | 2005 | | | 2004 (local GAAP) * | | |
| | | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| | *Yes* | 86 | 38 | 124 | 80 | 41 | 121 | 89 | 42 | 131 |
| | *No* | 9 | 2 | 11 | 13 | 2 | 15 | 11 | 1 | 12 |
| | TOT | 95 | 40 | 135 | 93 | 43 | 136 | 100 | 43 | 143 |
| | | **C index** | **0.849** | | **C index** | **0.802** | | **C index** | **0.845** | |
| *In 2004 the comparability has been tested using the same research theme. | | | | | | | | | | |

The C index for the investments in associate companies, for the period 2004 - 2009, shows a growing trend, reaching very good values. It passes from 0.845 in 2004 to 0.884 in 2009, revealing a *high* level of *comparability* in the application of the equity method. The lowest degree of the index in 2005 can be explained mainly considering the transition to IAS 28 from the previous Italian rules which also allowed the alternative of the cost method for the evaluation of the interests in associates. We also observe an almost full level of *compliance* with the international accounting rules even if in 2009 about 7% of the Italian firms and about 2% of Spanish firms still used the cost method to account for the associates.

Referring to the interests in joint ventures, the results appear quite different (see *Table 6*).

Despite the accomplishment of the *maximum level of de jure harmonization* and even if the firms *fully comply* with the international accounting rules, the level of *de facto* harmonization in Italy and Spain is *not satisfactory* for this item, as the C index generally reveals a medium degree of *comparability*. Moreover, the index decreases from 0.569 in 2004 to 0.525 in 2009. Considering the data, during the period 2004 - 2009, the number of firms adopting the equity method is highest for Italy than Spain, despite the IASB recommends the proportional consolidation which better reflects the economic substance of the interests in jointly controlled entities - that is the control on economic benefits.

*Table 6.* **The comparability for investments in joint ventures**

| T3) Joint venture | 2009 | | | 2008 | | | 2007 | | |
|---|---|---|---|---|---|---|---|---|---|
| | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| Are all JV consolidated with one of the two available methods? | | | | | | | | | |
| *Proportional method* | 32 | 29 | 61 | 24 | 25 | 49 | 24 | 25 | 49 |
| *Equity method* | 31 | 6 | 37 | 27 | 8 | 35 | 25 | 8 | 33 |
| TOT | 63 | 35 | 98 | 51 | 33 | 84 | 49 | 33 | 82 |
| | **C index** | **0.525** | | **C index** | **0.508** | | **C index** | **0.513** | |
| | 2006 | | | 2005 | | | 2004 (Local GAAP) * | | |
| | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| *Proportional method* | 24 | 26 | 50 | 26 | 24 | 50 | 18 | 23 | 41 |
| *Equity method* | 25 | 5 | 30 | 21 | 5 | 26 | 16 | 2 | 18 |
| TOT | 49 | 31 | 80 | 47 | 29 | 76 | 34 | 25 | 59 |
| | **C index** | **0.525** | | **C index** | **0.544** | | **C index** | **0.569** | |

*In 2004 the comparability has been tested using the same research theme.

We observe that about 50% of the Italian firms largely preferred the equity method in the accounting for the associates, probably because of the greater simplicity that features the equity method, compared to the complexity concerning the application of the proportional method. To sum up, we can assert that having multiple choices in the election of an accounting treatment heavily affects the level of harmonization. This result seems to confirm the Assumption no. 2, according to which comparability decreases when firms can choose between multiple evaluation options allowed by international accounting rules, and the Assumption no. 3 whereby the harmonization of the accounting standards does not guarantee the comparability of financial statements.

Finally, considering the research theme no. T4 on the other equity investments, the results are summarized in the Table below (see *Table 7*).

IAS 39 requires the application of the *fair value* as the only method for the assessment of financial instruments which are classified as held for trading or available for sale, except when the fair value is not reliable. In such circumstances, IAS 39 allows the alternative cost method. The fair value application by the Italian and Spanish firms represents, undoubtedly, one of the greatest innovations introduced by IAS/IFRS. Our data disclose that 5 years after the mandatory adoption of the international accounting principles, the fair value is still scarcely employed compared to the cost method.

Considering the data, we find out that, even in 2009, the cost method is used approximately by 35% of the Italian and Spanish enterprises since, as they assert in the disclosures to the annual reports, the fair value is not reliable. Our findings reveal how the influence of the historical cost – as allowed by the previous national code rules – still persists, although the percentage of the firms which use it instead

of the fair value decreases over time (mainly for Italian firms, while for Spanish firms the trend appears almost constant). These results affect the C index, since it reaches, in the observed period, a medium level of more or less 0.50, except for 2004 when the index achieved a value of 1, which corresponds to full comparability.

*Table 7.* **The comparability for interests in other equity investments**

| **T4) Other equity investments** | **2009** | | | **2008** | | | **2007** | | |
|---|---|---|---|---|---|---|---|---|---|
| | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| Are all OEI valuated at fair value? | | | | | | | | | |
| *Yes* | 71 | 29 | 100 | 51 | 30 | 81 | 49 | 29 | 78 |
| *No* | 42 | 12 | 54 | 56 | 11 | 67 | 58 | 11 | 69 |
| TOT | 113 | 41 | 154 | 107 | 41 | 148 | 107 | 40 | 147 |
| | **C index** | **0.542** | | **C index** | **0.501** | | **C index** | **0.498** | |
| | 2006 | | | 2005 | | | 2004 (Local GAAP) * | | |
| | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT | ITALY | SPAIN | TOT |
| | | | | | | | | | |
| *Yes* | 45 | 27 | 72 | 42 | 26 | 68 | 115 | 37 | 152 |
| *No* | 62 | 12 | 74 | 65 | 12 | 77 | 0 | 0 | 0 |
| TOT | 107 | 39 | 146 | 107 | 38 | 145 | 115 | 37 | 152 |
| | **C index** | **0.497** | | **C index** | **0.498** | | **C index** | **1.000** | |

*In 2004 the comparability has been tested through the following research theme: "Are all OEI valuated at the lower between cost or market value?"

Our outcomes for interests in other equity investments contrast with a previous research conducted by Morais and Fialho (2008) who applied a regression analysis to identify the firms' specific characteristics that affect the level of convergence in the financial instrument reporting practices. The Authors adopted the Jaccard (JACC) index and observed a high level of harmonization between IAS 39 and the reporting practice of a broad-based sample of European-listed companies in 2005.

Our results suggest a conservative approach and lack of incentives to use fair value measurement for most companies. As a matter of fact, a reasonable explanation of our findings lies in the fact that both national Italian and Spanish GAAP, up to 2004, allowed only one accounting treatment which was the lower between cost or market value. In fact, until the introduction of the IAS/IFRS, the Italian and the Spanish accounting systems were based on the historical cost. The reference to the market values was allowed just to accomplish the prudence rule that prevailed on the accrual concept. The revaluations were not allowed unless authorized by specific laws.

Once more, we can assert that having multiple evaluation options heavily affects the level of accounting comparability. Our results still confirm the Assumption no. 2 according to which comparability decreases when firms can choose between multiple evaluation options allowed by international accounting rules, and the

Assumption no. 3 whereby the harmonization of the accounting standards does not guarantee the comparability of financial statements. Our findings are consistent with the recent study by Cairn *et al.* (2011), who observed how the use of the fair value option for other financial assets and other financial liabilities decreases comparability.

In conclusion, the degree of *de facto* harmonization, and thus of comparability, appears not acceptable from the point of view of the Italian and Spanish users of financial statements. These results add an interesting contribution to the debate about the improvement of the accounting harmonization and, therefore, about the enhancement of the accounting comparability as a result of the compulsory application of the IAS/IFRS (Thorsten & Gornik-Tomaszewski, 2006; Jagannath & Nanjegowda, 2008; Paananen & Henghsiu, 2009). Italian and Spanish companies have faithfully applied the prescribed financial accounting standards during the six years of observation, both for domestic accounting standards in 2004 and for international accounting standards during the period 2005 – 2009. Nevertheless, the financial statements of the inquired Italian and Spanish groups reveal a decreasing level of harmonization and comparability during the years following the adoption of the IAS/IFRS, not only referring to the consolidation of the investments in joint ventures, but also regarding the evaluation of the other equity investments.

## SUMMARY AND CONCLUDING REMARKS

The mandatory application of the same set of accounting standards does not necessarily lead to harmonization in the accounting practices. Thus, the pursuing of harmonization, and hence comparability, is entrusted to the standard setting process, as well as to the application of the standards themselves. Starting from these considerations, the objective of this paper was to test the level of comparability between two Code law countries, as a result of *de facto* harmonization, after the mandatory introduction of IAS/IFRS. The main research question was if *de jure* harmonization of the accounting standards in 2005 has led to comparable accounting practices in 2009, even when multiple evaluation options were provided.

We decided to conduct an empirical investigation to measure the level of comparability for consolidated financial reporting of listed companies in Italy and Spain, through some starting assumptions which refer to the application of IAS 27, 28, 31 and 39, during 6 years of observation. In order to measure the *de facto* harmonization, we selected the van der Tas Comparability C index since it is very simple, very easy to use and particularly suitable for the measurement of the harmony between two or more countries.

With regard to our empirical findings, the carried out investigation provides some interesting conclusions. In both cases of the consolidation of holdings in subsidiaries and associates, the index of compliance and harmonization is very high. Both the Italian and the Spanish corporate groups are fairly in compliance with IAS 27 and IAS 28 and, at the same time, harmonized in their accounting

behaviors. On the other hand, the case of the consolidation of interests in joint ventures, indicates that the groups proved to be 100% compliant with IAS 31, but fairly harmonized in their accounting choices, especially for the Italian firms, since they sometimes used the proportional consolidation criterion, but mostly they preferred the easier equity method. The alternative between the proportional method and the equity method, both provided by IAS 31, undermines the comparability of the accounting practices.

Similar results came out from the analysis of the evaluation of the other equity investments for the assessment of which the historical cost, although provided by IAS 39, whenever the fair value is not reliable, still prevails too much on the fair value. This is probably a heritage deriving from the previous national regulation, even if the trend is decreasing. In conclusion, the prescription of the cost method when the fair value is not reliable, represents a threat to the full comparability of financial reporting.

With reference to our starting assumptions, we can conclude as follows:
A1) We assume that Italian and Spanish companies have faithfully applied the prescribed financial accounting standards during the period 2005 – 2009, both for domestic accounting standards in 2004 and for international accounting principles. *Our first assumption is fully confirmed by the empirical evidence collected in the research themes T1, T2, T3 and T4.*
A2) We assume that comparability decreases when firms can choose between multiple evaluation options allowed by international accounting rules. *Our second assumption is fully confirmed by the empirical evidence provided by the investigation of the research themes T1, T2, T3 and T4.*
A3) Finally, we assume that if full *de facto* harmonization is expected to lead to comparability of financial statements, the harmonization of the accounting standards is not a guarantee of comparability. *Our third assumption is fully confirmed by the empirical evidence provided by the investigation of the research themes T3 and T4.*

The implications for theory and practice are as follows. The general conclusion of the present study is that our empirical evidence seems to confirm that *harmonized accounting standards do not necessarily lead to harmonized accounting practices.* These results are consistent with previous studies focused on other specific items (Mechelli, 2009; Cairns *et al*., 2011) and highlight the existence of factors, other than regulations, that can affect both the accounting practices and the value relevance of accounting information (Craswell & Taylor ,1992; Nobes, 1998b and 2006; Rahman *et al*., 2002; Morais & Curto, 2009). These factors are largely related to financial culture, accounting culture and regulatory culture, while others are susceptible to modulation by the principal parties. Anyway, they represent an obstacle to what Zeff (2007: 302) calls as "*genuine comparability*".

Furthermore, our study suggests that the Italian and the Spanish firms, having closer relationships with banks, less demand for information from capital markets and more concentrated ownership, resist IAS/IFRS mandatory adoption since, according to Christensen *et al.* (2008), they have no incentives to improve

accounting quality engaging in less earnings management and more timely loss recognition subsequent to IFRS adoption. These findings are consistent with prior literature and suggest that resisters have closer relationships with insiders (Ball *et al*., 2003). Therefore, the obtained results could be helpful for the decisions of institutional regulatory bodies. *Findings obtained through the investigation on the investments in subsidiaries, in associates, in joint ventures, and in other equity interests from 2004 to 2009,* lead us to conclude that *we are still quite far from the expected and desired comparability of financial statements within the European Union, that, in the intention of the European Legislator, should have resulted from the standard setting process.*

The observed behaviors for Italy and Spain appear to actually limit the required comparability of IAS/IFRS consolidated financial statements. In addition our outcomes rise several concerns about the role of the IASB, the European Commission and of the national regulatory bodies, both in the improvement of the European "*genuine international convergence and comparability*" (Zeff, 2007: 302) – merely by means of the enforcement of accounting standards – and in the consideration of the extent to which standards should permit multiple evaluation options.

As for the methodology applied in the measurement of comparability, on one side, the concentration indices concur to measure the level of *de facto* harmonization regarding specific categories of analysis, on the other one, their application reveals some problems. Eventually, we have to say that the current research presents two main limits.

The first limit is linked to the analysis of the comparability of annual reports on an item by item base. The extension of the test of comparability to the other transactions, events and accounting items would have concurred to enhance the actual obtained results; still, almost all researchers, as stated in section 3, have looked at comparability of financial statements applying the one item approach because, although this is a simplification of reality, it leads to more sophisticated results.

The second limit regards the application of the C index for the measurement of the harmonization and thus comparability which unfortunately shows a series of weaknesses:

- it is an aggregate index, so the rate of one country can affect the rate of other countries;
- the index depends on the number of companies studied;
- the index gives equal weight to the companies instead of countries;
- there is no gradation in comparability, two alternative accounting methods are either comparable or not and the differences between the alternative accounting methods are about the same size;
- if m includes "non disclosures" and "not applicable", the C index results in

comparability levels that are too conservative since it treats each non disclosing and not applicable company as not comparable. Ignoring these "non disclosures" and "not applicable" results in the same disadvantages as with the H index.
- the index is also affected by the increasing or decreasing number of the accounting items recognized in the balance sheet during the observed period.

Finally, our future research can be conducted regarding the following highlights:
- the analysis of the consolidated financial statements for the years 2010 and 2011;
- the comparison of the Italian and Spanish results with those of some Common law countries (e.g. Australia), in order to confirm the first results obtained for the two Code law countries, choosing the most suitable measurement methodology;
- the implementation of a correlation analysis in order to identify the factors which affect the observed behaviors.

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[i] A previous research paper on the level of harmonization in consolidated financial statements of banks and industrial companies highlighted a higher harmonization index for financial companies due to the superior *enforcement* exercised by Bank of Italy. For this reason, it has been considered more valuable to focus the present research on industrial groups (Catuogno & Mauro, 2009).

[ii] As of 1st January 2005 it is no longer possible to avoid applying the equity method in the presence of associate companies subject to serious and long-lasting restrictions, unless the restrictions are so serious that they could question the survival of the associate companies, decreasing the possibility to exercise any considerable influence. Moreover, whenever the participation in an associate company is held exclusively for a subsequent sale, there are the conditions for the application of IFRS 5, which concerns non current assets held for sale.

[iii] However, before subsequent amendments to the Spanish regulation, there was a difference on recognition as "*IFRS establish that such influence exists when the interest held is equal to or greater than 20%, while SAS establish a limit of 3% if the investee company is listed*" (Callao *et al*., 2010: 171).