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# **IAS/IFRS AND FINANCIAL REPORTING QUALITY: LESSONS ON THE EUROPEAN EXPERIENCE**

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## **Abstract**

This paper discusses the effects of the adoption of IAS/IFRS in Europe on the quality of financial reporting. In doing so, it adopts the perspective of stock market investors and focuses on value-relevance research.

The adoption of IAS/IFRS in Europe is an example of accounting standardization among countries with different institutional frameworks and enforcement rules. This allows investigating whether, and to what extent, accounting regulation *per se* can affect the quality of financial reporting and lead to convergence in financial reporting.

This is a key issue for standard setting purposes as IAS/IFRS have been adopted in very diverse countries all over the world and many others are likely to adopt them in the near future.

**KEYWORDS:** Financial Reporting Quality, IAS/IFRS, Value-Relevance, European Regulation 1606/2002

**JEL CLASSIFICATION:** M41, G10

## **1. INTRODUCTION**

Standard setters, regulators and policy-makers all have a vital interest in the effect of financial reporting on the economy. This interest is due to the economic consequences associated with financial information. Financial information influences investors' behaviour with respect to portfolio selection, which in turn affects security prices and, therefore, the terms on which a firm obtains additional financing.

Empirical research has shown the importance of markets that work well for efficient capital allocation (Wurgler, 2000). When the market works well, pricing of securities is correct, the allocation of capital in the economy is efficient and everyone is better off.

Financial reporting regulation is one of the mechanisms used to promote the operation of securities markets. Just as a used car dealer who develops a reputation for honesty and fair dealing will enjoy higher sales prices, a firm with a credible policy of high quality information is expected to enjoy higher share prices and lower cost of capital. This is because high quality disclosure reduces investors' concerns about inside information.

The purpose of this paper is to identify, consider, evaluate and comment on existing research on the effects of the adoption of IAS/IFRS on the quality of financial reporting. In doing so, this paper adopts the perspective of stock market investors and focuses on value-relevance research. Moreover, it focuses on the European experience. Starting from 2005, the European Regulation 1606/2002 has mandated the adoption of IAS/IFRS in all the member states of the European Union with the ultimate goal of increasing transparency in financial reporting. IAS/IFRS adoption in the European Union therefore represents an extraordinary event for empirical research on the quality of financial reporting for two main reasons. First of all, IAS/IFRS adoption in the European Union has been mandatory. Secondly, it has involved different countries with different accounting standards.

To date, there is no exhaustive literary review examining the effects of the mandatory adoption of IAS/IFRS in the European Union. Soderstrom and Sun (2007), for instance, concentrate on voluntary IAS/IFRS adoption and on stock market perception of announcements relative to IAS/IFRS adoption in the European Union. Their analysis has yielded important results, which highlight that accounting quality is a function of the firm's overall institutional setting, including the legal and political system of the country where the firm resides. However, findings on voluntary IAS/IFRS adoption cannot be generalized in the case of mandatory IAS/IFRS adoption. This is because voluntary adopters self-select to follow

IAS/IFRS after considering the related costs and benefits, the transparency of information being only one of them. On the contrary, mandatory adopters in the European Union switched to IAS/IFRS because this was required by Regulation 1606/2002.

Pope and McLeay (2011), instead, report evidence on the effects of mandatory IAS/IFRS adoption in the European Union, but limited to the 2007 – 2010 period, and with a specific focus on findings from the European Commission-funded INTACCT project<sup>1</sup>. In line with Soderstrom and Sun, Pope and McLeay document that the effects of mandatory IAS/IFRS adoption largely depend on preparer incentives and local enforcement<sup>2</sup>.

Bruggemann *et al.* (2012) also provide a review on the mandatory adoption of IAS/IFRS in the European Union, which however considers a wide range of effects, ranging from compliance and accounting choices in implementing IAS/IFRS to capital markets and macroeconomic consequences. As a result, whether or not IAS/IFRS improve the quality of financial reporting has not been completely addressed with specific regard to their mandatory adoption in Europe.

Academic research is an important tool for standard setters and policy-makers as it can provide evidence helpful to informing the debate and the decision-making process on financial reporting issues. The purpose of this review is therefore to present a comprehensive overview of accounting studies investigating the effect of mandatory IAS/IFRS adoption on accounting quality, to assist accounting researchers and all the participants in the financial reporting process. In doing so, this paper focuses on value-relevance studies, which investigate the usefulness of accounting information to equity market investors.

This paper extends prior literature in different ways. First of all, it complements previous reviews on the effects of IAS/IFRS adoption by examining a wider range of recent studies on the value-relevance of IAS/IFRS for European firms. By focusing on the European context, this review also helps policy-makers assess whether the European Regulation 1606/2002 has effectively achieved its objective of improving the quality of financial reporting. According to such a Regulation, the goal of adopting IAS/IFRS in the European Union is in fact to ensure a

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<sup>1</sup> INTACCT was a research network among European Universities supported by the European Commission over the period 2007-2010. Its purpose was to conduct research on IAS/IFRS compliance and enforcement as well as on the accounting and real economic consequences of IAS/IFRS adoption in the European Union.

<sup>2</sup> Enforcement is defined by the Committee of European Securities Regulation as the combination of supervision and sanctioning in cases of non compliance with the rules (Ball *et al.* 2003).

higher level of transparency of information which, in turn, should lead to a more effective and efficient functioning of the capital market.

Finally, IAS/IFRS adoption in the European Union is an example of accounting standardization among countries having different institutional frameworks and enforcement rules. As a result, this literary review allows inference on whether, and to what extent, accounting regulation *per se* can affect the quality of financial reporting. As will be seen, empirical findings show that the quality of IAS/IFRS implementation and the economic consequences of their adoption depend on enforcement mechanisms and institutional factors, which are far from uniform across Europe.

This is a key issue given the widespread acceptance of IAS/IFRS all over the world. IAS/IFRS or local variants have been adopted in jurisdictions as diverse as Australia, Canada, Hong Kong, Central and Eastern Europe, including Russia, parts of the Middle East and Africa. India, Japan and much of South America are in the process of discussing and deciding mandatory adoption of IAS/IFRS, at least for part of their economies. Several other countries have not adopted IAS/IFRS, but have established convergence projects<sup>3</sup>. Moreover, in 2007 the Securities and Exchange Commission (SEC) in the United States of America eliminated reconciliation from IAS/IFRS to U.S. GAAP required to foreign companies listed on the U.S. markets. The SEC also announced that IAS/IFRS would be permitted in the U.S. markets as an alternative to U.S. GAAP, although in this case the timescale is lengthy and subject to various conditions. The details vary, but the trend towards IAS/IFRS as a single set of globally accepted accounting standards is therefore clear and strong.

In order to identify relevant studies for this literature review, I have selected the following key words: IAS/IFRS adoption, value-relevance, accounting quality, capital market research, Regulation 1606/2002. These search terms were used in editorial databases, such as Elsevier, Springer, Taylor and Francis, and Wiley, as well as in the Social Science Research Network (SSRN), JSTOR and Business Premiere databases. Moreover, the list of references in the paper identified through the abovementioned databases have been used to identify additional papers relevant to this review.

The paper is organized as follows. Section 2 defines accounting quality and describes how it is measured by value-relevance studies. Section 3 describes the main differences between

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<sup>3</sup>For instance, since 2007 China requires all listed companies to report under a new set of Chinese Accounting Standards which is recognized by the IASB as having achieved substantial convergence with IAS/IFRS.

European domestic GAAP and IAS/IFRS. Section 4 provides an analysis of the effects of adopting IAS/IFRS in Europe on the quality of financial reporting, whereas Section 5 concludes with specific guidance for future accounting research and the policy-making debate.

## **2. FINANCIAL REPORTING QUALITY: DEFINITION AND EMPIRICAL MEASURE IN VALUE-RELEVANCE RESEARCH**

This paper reviews empirical research on the mandatory adoption of IAS/IFRS in Europe by adopting the perspective of stock market investors and therefore focusing on value-relevance research. This choice is consistent with both the IASB Framework and the European Regulation 1606/2002 mandating IAS/IFRS in the European Union.

According to IASB (2010), the two primary qualitative characteristics of information in financial statements are relevance and faithful representation. Information in financial statements is relevant when it is capable of making a difference to a financial statement user's decisions. Relevant information has confirmatory or predictive value. Faithful representation means that the information reflects the real-world economic phenomena that it purports to represent. Relevance and faithful representation make financial statements useful to the reader. There are also some enhancing qualitative characteristics, which are complementary to the fundamental characteristics: comparability, verifiability, timeliness and understandability. Enhancing qualitative characteristics distinguish more useful information from less useful information. They enhance the decision-usefulness of financial reporting information that is relevant and faithfully represented.

Usefulness of financial reporting underlies the all IASB's conceptual framework. IASB (2010 BC 1.16) states that the main objective of financial reporting is to provide information that is useful to investors, creditors and others in making investment, credit and similar resource allocation decisions. However, although financial reporting users include a large numbers of subjects, IASB focuses on the needs of participants in capital markets. More specifically, investors are considered those who are most in need of information from financial reports, given that they cannot usually request information directly from the firm. Moreover, as investors provide risk capital to firms, the financial statements which meet their needs also meet most of the needs of other users. Investors' needs are therefore considered as highly representative of the needs of a wide range of users (IASB 2010 BC 1.16). As a result, in the last decades, empirical research has long been focusing on the relationship between different

accounting standards and share prices, or returns, with the purpose of identifying the best accounting policies.

The research stream that compares different accounting standards by examining their association with securities prices is also called “value-relevance” research (Holthausen and Watts, 2001). As outlined by Barth *et al.* (2001), in the accounting literature an accounting number is defined as value-relevant if it has a predicted association with share prices. This, in turn, happens only if the amount reflects information relevant to investors in valuing a firm and is measured reliably enough to be reflected in share prices. Equity values therefore reflect an accounting amount only if the two are correlated. Moreover, value relevance research interprets accounting amounts that are more value-relevant as being of higher quality (Barth *et al.* 2008).

Of course, there are a variety of other ways researchers can operationalize relevance and reliability, or the secondary dimensions of these primary criteria that standard setters consider when making standard setting decisions. For instance, some research investigates accounting quality by focusing on earnings management or timely loss recognition (e.g. Leuz *et al.* 2003, Burgstahler *et al.* 2006, Barth *et al.* 2008). However, in large part because of the development of the notion of market efficiency (Fama 1970), value-relevance studies have been dominant.

A value-relevance approach in examining the effects of the mandatory adoption of IAS/IFRS in Europe also finds support in the European Regulation 1606/2002. Such regulation states that *“in order to contribute to a better functioning of the internal market, publicly traded companies must be required to apply a single set of high quality international accounting standards” (...)* For the purpose of this Regulation ‘international accounting standards’ shall mean International Accounting Standards (IAS), International Financial Reporting Standards (IFRS) (.....) adopted by the International Accounting Standards Board”. Along the same lines, the IFRS Foundation states that IAS/IFRS are aimed at insuring that firms publish high quality reports (IFRS Foundation 2010). IAS/IFRS are therefore considered to be of higher quality than domestic GAAP, an issue into which value-relevance research can provide useful insight. Furthermore, the ultimate goal of Regulation 1606/2002 adopting IAS/IFRS is *“to improve the efficient and effective functioning of capital markets”*, which is consistent with the focus of value-relevance research on the needs of capital market investors.



Holthausen and Watts (2001) distinguish value-relevance studies into relative association tests, incremental association tests, and marginal information content studies. Relative association tests compare the association between stock market values (or returns) and accounting numbers prepared according to different accounting standard sets. The accounting numbers with the greater  $R^2$  are described as being more value-relevant. Value-relevance studies normally focus on the book value of equity and net income as they are key drivers in firm valuation (Feltham and Ohlson 1995, 1996; Ohlson 1999, 2000). Incremental association tests investigate whether the accounting number is helpful in explaining stock market values (or returns) given other specified variables. That accounting number is typically deemed to be value-relevant if its estimated regression coefficient is significantly different from zero. Incremental association tests are usually used to test the reconciliation adjustments from one accounting standard set to another. Finally, marginal information content studies investigate whether a particular accounting number adds to the information set available to investors. They typically use event studies to determine if the release of an accounting number (conditional on other information released) is associated with value changes. Price reaction are considered evidence of value relevance.

Table 1 reports the list of the value-relevance studies on IAS/IFRS adoption in Europe summarizing for each of them: the adoption mode (mandatory or voluntary); the research setting (single or multi-countries); the sample, the time period and the accounting measures under investigation; the type of value-relevance test (relative or incremental test, or marginal information content study); the empirical specification of the models; their findings on the effects of IAS/IFRS adoption.

### **3. MAIN DIFFERENCES BETWEEN EUROPEAN DOMESTIC GAAP AND IAS/IFRS**

Regulation 1606/2002 requires that, for each financial year starting on or after 1 January 2005, companies governed by the law of a member state prepare their consolidated accounts in conformity with IAS/IFRS if, on their balance sheet date, their securities are admitted to trading on a regulated market of any member state. The Regulator has also provided an option for member states to permit or require the application of international accounting standards in the preparation of annual accounts and to permit or require their application by unlisted companies.

Prior regulation for listed companies in Europe was based on the fourth and seventh European Directives. The objective of the Directives was to harmonize financial disclosure, that is, to reduce the number of differences in accounting standards across the European Union member states. However, the Directives did not require that the same rules be applied in all member states, but that the prevailing rules were compatible with those in other member states. Given this flexibility, the implementation of the accounting Directives has differed from country to country.

According to Regulation 1606/2002, the fourth and seventh European Directives could not ensure a high level of transparency in financial reporting, which is a necessary condition for building an integrated capital market that operates effectively and efficiently. This implies that requiring IAS/IFRS for listed companies is expected to improve the quality of financial reporting.

The former chairman of IASB, Mr. Tweedie, explains the reasons underlying the switch from the European Directives to the IAS/IFRS as follows: *“For too long, earnings have been smoothed in an effort to show investors a steady upward trajectory of profits. While this approach provides a simple and understandable model, it simply is not consistent with reality. Publicly traded companies are complex entities, engaged in a wide range of activities and subject to different market pressures and fluctuations. Accounting should reflect these fluctuations and risks (...) The current direction we are taking will be what I like to call, “tell it like it is” accounting. This means an increasing reliance on fair values, when these values can be determined accurately”.*

As a matter of fact, the European Directives are more concerned with the protection of debt holders and mandate more conservative accounting methods. Under the Directives, prudence prevails over accrual and historical cost is the basic criterion for financial reporting, whereas IAS/IFRS are more focused on equity investors and conceive financial reporting in a more dynamic way. They make large use of fair value accounting and require a fuller disclosure than the European Directives.

Compared to the legalistic and politically and tax-influenced standards that have historically typified accounting in Europe, IAS/IFRS reflect more economic substance than legal form; they make economic gains and losses more timely, and curtail managers' discretion in setting provisions, creating hidden reserves and smoothing earnings. IAS/IFRS require the entire liability to be on the balance sheet, all the companies controlled, even

when they carry out different activities, to be fitted within the consolidated area and to be consolidated line by line, and they require assets to be written at their fair value, when this value can be determined accurately.

In particular, fair value accounting is expected to provide investors with useful information to predict the capacity of firms to generate cash flow from the existing resource base. Fair value should therefore play a key role in reducing the informative asymmetry between firms and investors, thus improving the quality of information. By adopting fair value accounting, the concept of income changes from income produced to mixed income, which also includes potential revenues. The concept of net capital is divested of its strictly juridical connotation and takes a more economic meaning. In fact, the introduction of fair value makes net capital converge toward its market value.

Fuller accounting policies and explanatory notes are also expected to play a key role in reducing information asymmetries and improving firm value. For instance, IAS 36 "*Impairment of assets*" includes, among the information to be provided for each class of assets, the amount of impairment losses recognised or reversed, the recoverable amounts, the values in use and the discounting rate used in their estimation. In any case, financial statement users have to be provided with information concerning the evaluation models being used, which are otherwise handled within the company and kept strictly confidential. IAS 37 "*Provisions, Contingent Liabilities and Contingent Assets*" requires detailed information about contingent liabilities such as the estimation of their financial effects as well as the uncertainties about the amount or timing of the resulting outflows. The disclosure required by IFRS 7 "*Financial instruments: disclosures*" with regard to the financial instruments appears to be even more detailed. It consists of a considerable supply of information, ranging from basic issues such as the amount, the nature and general conditions of each financial instrument, to information on fair value and on risk management policies, especially with regard to interest rate and credit risk. IAS 14 "*Segment reporting*" establishes principles for reporting financial information by segment, that is information about the different types of products and services a firm produces and the different areas in which it operates. As stated by IAS 14, the explicit objectives of such detailed information are "*to help users of financial statements to better understand the firm's past performance, to better assess its risk and returns and make more informed judgements about the firm as a whole*" (IAS 14). As a consequence, with IAS/IFRS adoption,

part of the information previously used exclusively for management control purposes is now given to the market in order to improve the quality of public information.

#### **4. THE EFFECTS OF IAS/IFRS ADOPTION ON FINANCIAL REPORTING QUALITY**

##### ***4.1. Research on IAS/IFRS adoption prior to the European Regulation 1606/2002***

Several studies have investigated the effects of adopting IAS/IFRS in Europe on investors' perception of accounting quality already prior to Regulation 1606/2002, providing evidence in favour of their adoption.

By means of disclosure quality scores provided by reputed experts Daske and Gebhardt (2006) report, for instance, an increase in accounting quality for a sample of Austrian, German and Swiss firms switching to IAS/IFRS in the period prior to their mandatory adoption in Europe. Similar results are provided by value-relevance studies such as the ones by Bartov *et al.* (2005) and Jermacowicz *et al.* (2007), which document an increase in the value-relevance of earnings for German firms adopting IAS/IFRS. Barth *et al.* (2008) also compare domestic GAAP and IAS/IFRS across 21 countries, suggesting that firms applying IAS/IFRS exhibit less earnings management, more timely loss recognition, and more value-relevant accounting measures.

However, all these studies refer to voluntary adoption of IAS/IFRS, which might be the result of corporate incentives to increase transparency. Ashbaugh (2001), for instance, documents that the decision to report under IAS/IFRS is positively related to corporate size, the number of foreign equity markets on which the firm's shares are traded, and the additional issuance of equity shares. Similar findings are reported by Cuijpers and Buijink (2005) and Gassen and Selhorn (2006). For a sample of European non-financial firms voluntarily adopting IAS/IFRS, Cuijpers and Buijink (2005) document that foreign listing and geographical dispersion of operations are important drivers. Gassen and Selhorn (2006) also show that size, international exposure, dispersion of ownership and IPOs are important determinants of voluntary IAS/IFRS adoption by publicly traded German firms. Findings therefore suggest that companies voluntarily shifting to IAS/IFRS have incentives to improve transparency and the quality of financial reporting. Along the same lines, Covrig *et al.* (2007) document that foreign mutual fund ownership is significantly higher among IAS/IFRS adopters, which suggests a voluntary switch to IAS/IFRS aimed at attracting foreign investors by providing them with both more information and information that is more familiar to them.

Self-selection bias could also explain mixed results in research, such as in the case of Hung and Subramayam (2007), who fail to find – as opposed to Bartov *et al.* (2005) and Jermacowicz *et al.* (2007) – significant differences in the value-relevance of accounting numbers under domestic GAAP or IAS/IFRS for their selected sample of German firms.

Since the same incentives are not likely to be found when IAS/IFRS adoption is mandatory, results referring to voluntary shifts may not extend to mandatory adoption cases. Christensen *et al.* (2008), for instance, provide evidence consistent with this view. They investigate voluntary and mandatory shifts to IAS/IFRS in Germany, where firms were allowed to switch to IAS/IFRS prior to 2005, and find that voluntary adoption is associated with an increase in accounting quality, measured by earnings management and timely loss recognition, whereas such an improvement is not observed in the case of mandatory shifts. Their findings therefore suggest that high quality accounting standards such as IAS/IFRS do not necessarily lead to higher quality accounting, at least when firms do not perceive net benefits from IAS/IFRS adoption. This evidence is in line with Daske *et al.* (2012) who also find that changes in firms' reporting incentives play a significant role in the commitment to increased disclosure for firms voluntarily adopting IAS/IFRS. As firms have considerable discretion in how they implement the new standards, some of them can make very few changes and adopt IAS/IFRS more in name than as a strategy to increase their commitment to transparency (Daske *et al.* 2012).

#### **4.2. Research on mandatory IAS/IFRS adoption in the European Union**

The adoption of IAS/IFRS required by European Regulation 1606/2002 for all listed companies in the European Union represented an extraordinary event for empirical research, as it became possible to investigate the effects of financial reporting under IAS/IFRS with specific regard to mandatory adoption at a European level.

Early evidence documents that equity investors already perceived the benefits of IAS/IFRS adoption before the enforcement of Regulation 1606/2002. Comprix *et al.* (2003), for instance, identify 11 dates between 2000 and 2002 that signal the likelihood or the timing of the IAS/IFRS adoption in the European Union and find that the stock market reacted positively to news that increased the probability of IAS/IFRS adoption. Armstrong *et al.* (2010) also investigate the European stock market reactions to 16 events associated with the adoption of IAS/IFRS in Europe, such as the European Parliament Resolution requiring all EU listed companies to use IAS/IFRS, or the endorsement of all IAS/IFRS except for IAS 32 and

39, or the IAS 39 endorsement with carved out provisions. They find that the stock market reaction was significantly positive (negative) in reaction to events that increased (decreased) the likelihood of the adoption, and that the reaction was stronger for firms that did not cross-list in the United States. In contrast to the three-day window test in Armstrong *et al.*, Pae *et al.* (2008) focus on the reduction of Tobin's Q associated with agency costs in a long-window test over the period when the European Union moved to IAS/IFRS. They find that from 1999 to 2003 Tobin's Q increased more for European firms that were not listed in the United States, were family-controlled and had a low analyst following. Pae *et al.* attribute these findings to the announcements of IAS/IFRS adoption in the European Union, which led to expectations of reduced future agency costs.

A certain number of value-relevance studies have investigated the effects of mandatorily adopting IAS/IFRS by focusing on different European countries contemporarily. Aubert and Grudnitski (2011), for instance, examine 13 countries in the European Union and 20 industries at the same time, but fail to document a statistically significant increase in the value-relevance of accounting information after IFRS adoption. Devalle *et al.* (2010) focus on companies listed on five European stock exchanges - Frankfurt, Madrid, Paris, London, and Milan - and find mixed evidence: the value-relevance of earnings on share price increased following the introduction of IFRS in Germany, France, and the United Kingdom, while the value-relevance of book value decreased, except for the United Kingdom. Agostino *et al.* (2011), instead, report positive effects of IAS/IFRS adoption on the value-relevance of accounting data for a sample of European banks.

Some value-relevance studies have investigated the mandatory IAS/IFRS adoption in individual countries, with the important advantage of reducing the problem of omitted variables. In fact, examining individual country limits possible confounding effects due to a wide range of country-related factors which might affect the value-relevance of accounting numbers. Nevertheless, studies on individual countries have also provided controversial results: some of them have found that IAS/IFRS are more value-relevant than domestic GAAP, others found them to be otherwise, still others did not find any significant difference between IAS/IFRS and domestic GAAP.

Callao *et al.* (2007), for instance, do not find that the value-relevance of financial reporting improved for a sample of Spanish firms, whereas comparability even worsened after IAS/IFRS implementation. Similar results are provided by Morais and Curto (2008), who

report a negative impact of IAS/IFRS adoption on the value-relevance of accounting numbers for a sample of Portuguese firms, and by Paananen and Lin (2009) for a sample of German firms. Jarva and Lantto (2012) also fail to find systematic evidence that mandatory IFRS adoption resulted in improved accounting quality for a sample of Finnish firms. Finland is particularly well suited for assessing the IAS/IFRS usefulness as it already had a high quality reporting environment, although domestic standards differed significantly from IFRS. Gjerde *et al.* (2008), instead, find mixed results for firms listed on the Oslo Stock Exchange. Their analysis provides little evidence of increased value-relevance for IAS/IFRS numbers when comparing and evaluating the two accounting sets unconditionally. When evaluating the change in accounting figures, the reconciliation adjustments to IAS/IFRS are found, instead, to be marginally value-relevant.

In contrast, some research has provided evidence of the beneficial effects of adopting IAS/IFRS. Horton and Serafeim (2010), for instance, find that reconciliation amounts to IAS/IFRS are value-relevant for a set of English firms. Iatridis and Rouvolis (2010) also document that IFRS-based financial statement measures have higher value-relevance than those prepared under Greek GAAP, whereas Karampinis and Hevas (2011) report some small, although positive effects of IAS/IFRS adoption on the value-relevance of accounting income.

(Insert Table 1 about here)

Several studies have tried to find out the reasons for such mixed results. Some of them have highlighted the important role of methodological issues. One of these relates to the omitted variable problem. For instance, Bartov *et al.* (2005) use a regression of returns on earnings, in which book value could be the omitted variable that is correlated with earnings, thus biasing the coefficient on earnings.

Barth and Clinch (2009) have highlighted the important role of model specification. Based on simulated data, Barth and Clinch (2009) show that the undeflated and share-deflated specifications of the Ohlson model perform better than the equity market-to-book ratio, price-to-lagged price, returns and equity market value-to-market value ratio specifications. The undeflated and share-deflated specifications consistently result in correct inferences relating to whether the coefficients equal zero and in lower bias and mean absolute errors in the coefficients and regression  $R^2$ .

Finally, some studies have pointed out that regression models used to compare different accounting standards (e.g. before and after IAS/IFRS adoption) may be mis-specified because the relationship between prices and accounting measures is not linear. Ashbaugh and Olsson (2002) provide consistent evidence by showing that the violation of clean surplus accounting makes regressions based on the Ohlson model (1995) mis-specified. Clarkson *et al.* (2011) also document increased nonlinearity in the relationship between share prices and accounting data subsequent to IFRS adoption, which alters statistical inference based on a traditional linear pricing model.

Some other studies have instead shown the major role played by enforcement regimes and firms' reporting incentives for capital market benefits from IAS/IFRS adoption. Daske *et al.* (2008), for instance, document modest, but economically significant capital market benefits around IAS/IFRS mandatory adoption. However, such market benefits occurred only in countries where firms had incentives to be transparent and where legal enforcement was strong. In addition, the capital market effects of IAS/IFRS adoption were larger for firms in countries with domestic standards of lower quality and differing more from IAS/IFRS. Daske *et al.* (2012) also show the important role of reporting incentives around mandatory IAS/IFRS adoption in determining whether firms resist changing their reporting practices.

Although in the context of voluntary adoption, Barth *et al.* (2008) suggest that, even if IAS/IFRS are higher quality standards, the effects of features of the financial reporting system other than the standards themselves, including enforcement and litigation, can eliminate any improvement in accounting quality arising from IAS/IFRS adoption.

Among value-relevance studies, Prather-Kinsey *et al.* (2008) provide evidence on the heterogeneity in the capital market consequences of mandatorily adopting IAS/IFRS by showing that firms from code law countries experienced more significant market benefits from implementing IFRS than firms from common law countries. For a sample of European firms from 14 different countries, Morais and Curto (2009) document that the value-relevance of financial information increased after IAS/IFRS adoption, although to a different degree according to specific factors in the country in which the companies were based. In particular, they document that the relationship between tax and accounting influences the value-relevance of accounting information, with value-relevance being higher for countries where accounting and tax are less aligned. Finally, Aharony *et al.* (2010) focus on three accounting information items for which measurements under IAS/IFRS are likely to differ



considerably from measurements under domestic GAAP: goodwill, research and development expenses (R&D), and asset revaluation. By using valuation models that include these three variables in addition to book value of equity and earnings, Aharony *et al.* show that adopting IAS/IFRS increases their value-relevance to investors. However, findings also provide additional evidence of cross-country differences in the incremental value-relevance of IAS/IFRS, with investors benefitting most from the implementation of IAS/IFRS for such items in the European Union countries where local standards deviated more from IAS/IFRS. These results are in line with Kvaal and Nobes (2010), who find significant evidence that pre-IAS/IFRS national practices continue where this is allowed within IAS/IFRS, thus documenting the existence of national patterns of accounting within IAS/IFRS.

Taken as a whole, empirical evidence suggests that if, on the one hand, there are arguments to support an improvement in accounting quality under IAS/IFRS, on the other hand there are also reasons to think that mandatory adoption by itself is not sufficient to increase the quality of financial reporting. Accounting quality is not only the result of the quality of accounting standards, but also of the countries' legal and political systems as well as financial reporting incentives.

This conclusion also finds support in the research stream that investigates the role of legal and political framework in shaping financial information and investors' protection. Cairns (1999) and Street and Grey (2001), for instance, provide early evidence that lax enforcement result in limited compliance with IAS, thereby limiting their effectiveness. La Porta *et al.* (1998, 2000, 2002, 2006), Francis and Wang (2008) as well as Ball *et al.* (2003) also suggest that adopting high-quality standards might be a necessary condition for having high-quality information, without being a sufficient one. Ding *et al.* (2007) document that simply adopting IAS/IFRS may not necessarily improve national accounting systems unless countries implement profound changes in economic development policy, corporate governance mechanisms, and financial market functioning in general.

Along the same lines, Ball (2006) provides a list of important dimensions in which the world still looks considerably more local than global, with the important effect of making IAS/IFRS adoption uneven. Some of these relate to the political, legal and enforcement systems, some others are due to different historical and cultural backgrounds, still others are the result of some, or all these factors. Local dimensions include, for instance, the extent and nature of government involvement in the economy; government involvement in financial reporting

practices such as the political influence of managers, corporations, labour unions, and banks; legal systems such as common law versus code law and shareholder litigation rules; securities regulation and regulatory bodies; the structure of corporate governance such as relative roles of labour, management, and capital; the extent of private versus public ownership of corporations, of family-controlled businesses and of corporate membership in related company groups; the extent of financial intermediation; the role of small shareholders versus institutions and corporate insiders; the use of financial statement information, including earnings, in management compensation; the status, independence, training, and compensation of auditors. The above list is far from complete, but it gives some sense of the fact that the primary driving forces behind the majority of actual accounting practices are domestic. As a result, cross-country differences in accounting quality are likely to remain after IAS/IFRS unless institutional differences at least are removed.

Research examining other dimension of accounting quality has also come to the same conclusions. Leuz *et al.* (2003), for instance, document that countries with stronger investor protection enact and enforce accounting and securities standards in a way that reduces earnings management. Burgstahler *et al.* (2006) also report that strong legal systems are associated with less earnings management. Likewise, Cai *et al.* (2008) indicate that countries with stronger enforcement mechanism generally have less earnings management after the IAS/IFRS adoption. Additionally, IAS/IFRS adoption in countries with weak enforcement mechanisms damages their perceived quality of IAS/IFRS, whereas strong IAS/IFRS enforcement regimes put great pressure on management and auditors to act faithfully and truthfully to comply with the standards (Sunder 1997). Evidence therefore suggests that changes in accounting standards can play a role, but only coupled with proper reporting incentives and legal enforcement.

## **5. CONCLUSIONS**

This paper discusses extant empirical research on the effects of IAS/IFRS adoption on financial reporting quality. It adopts a value-relevance perspective and focuses on the European experience, where IAS/IFRS have been mandated for consolidated financial statements of listed companies starting from 2005.

This literary review yields two main findings. First, viewed together, empirical evidence suggests some beneficial effects from the mandatory adoption of IAS/IFRS in Europe. In fact, empirical studies provide some support to the notion that adopting IAS/IFRS improves the

quality of financial reporting, thereby increasing its usefulness to investors. The second main finding is that these effects differ according to the institutional setting of firms adopting IAS/IFRS. Factors different from accounting regulation play a key role in determining financial reporting quality and have actually led to an application of IAS/IFRS which is not uniform across Europe, with consequences on accounting quality both in absolute and relative terms. Empirical findings suggest that cross-country differences in accounting are likely to remain also after IAS/IFRS adoption.

This paper also shows that academic research is a valuable resource which can help standard setters and policy-makers better understand the possible effects of accounting standards. Accounting research cannot answer the question: what should the standard be? Rather, research aids in identifying issues, helps standard setters structure their thinking about such issues, and provide evidence that can inform the debate.

According to this view, this paper concludes by providing some guidance for future research and policy-making debate.

First of all, this paper argues that, while empirical evidence on the role of institutional settings and firms' incentives in shaping accounting quality is quite compelling, some caution must be shown in drawing definite conclusions on the effects of mandatory IAS/IFRS adoption on financial reporting quality. Although the literature on mandatory IAS/IFRS adoption in Europe has developed rapidly over the past years, it is still immature. In fact, extant research generally covers the period immediately subsequent to IAS/IFRS adoption in Europe, whereas it leaves the recent financial crisis out.

One of the mechanisms through which IAS/IFRS are expected to affect the quality of financial reporting is fair value accounting. Fair value accounting is supposed to ensure a higher degree of transparency in financial statements, which should lead to a higher value-relevance of accounting data and a better capability of financial markets to reflect the actual value of a firm. However, critics argue that fair value accounting based on models is not reliable, therefore raising some doubts regarding its usefulness to investors (Penman 2007, Benston 2008, Kolev 2009, Goh et al. 2009, Palea and Maino 2013).

The value-relevance of financial reporting under IAS/IFRS in Europe during the recent economic crisis and its specific link to fair value accounting is a key issue, especially with respect to the banking sector, which has not yet been investigated completely. Many papers have discussed the role of fair value accounting in the financial crisis (e.g. Bis 2009, Novoa et

al. 2009, Laux and Leuz 2009, Shaffer 2010, Pinnuck 2012), but none of these reports specific evidence on fair value accounting usefulness to investors. This paper argues that, in order to fully evaluate the effects of mandatory IAS/IFRS adoption in Europe on the quality of financial reporting, more analysis is needed. Empirical research covering a longer period, which includes both economic up- and downturns, as well as financial market turmoil, is necessary to draw more definite conclusions on this issue. In fact, as many have argued (e.g. Milburn 2008, Song *et al.* 2010, Palea and Maino 2013), when liquid market prices are not available, mark-to-model accounting introduces “model noise”, due to imperfect pricing models and imperfect estimates of model parameters. Consistent with this view, prior research has shown that investors are aware of that and therefore assign less relevance to fair value estimates, which are considered as less trustworthy (e.g. Petroni and Wahlen 1995, Nelson 1996, Eccher *et al.* 1996).

Another topic which deserves further scrutiny is the relative informativeness of IAS/IFRS versus US-GAAP. European Regulation 1606/2002 states that *“it is important for the competitiveness of capital markets to achieve convergence (...) This implies an increasing convergence of accounting standards currently used internationally with the ultimate objective of achieving a single set of global accounting standards”*. In this perspective, IASB has long been working closely with the US standard-setter, FASB, to converge the IAS/IFRS and US GAAP requirements. As a result, today the two set of accounting standards are more aligned than they were a decade ago. For this reason, the US Security Exchange Commission (SEC) allows non-US firms listed on the US stock market to use IFRS. However, while research indicates that accounting quality under IAS/IFRS generally exceeds that of domestic standards-based accounting amounts, empirical studies on the relative informativeness of IAS/IFRS versus US-GAAP have provided mixed evidence (e.g. Bartov *et al.*, 2005; Gordon *et al.*, 2010; Harris and Muller, 1999; Hughes and Sander, 2007; Van der Meulen *et al.*, 2007). Moreover, many of the differences investigated have been eliminated in the meantime. As a result, this literature needs substantial updating.

The only recent study related to this topic is that provided by Barth *et al.* (2012), who find that value-relevance comparability between IAS/IFRS and US GAAP has increased over time, although some differences still persist, thus providing some support to the standard setters' efforts. Barth *et al.* however focus their analysis only on net income, book value and cash flows. This paper argues that a key challenge is now to ensure that standard-setting activities

– especially major agenda decisions and discussion papers – are preceded by an effective evidence-gathering phase. Constructive engagement between academic research and standard setters is essential to make informed decisions. In this perspective, this paper claims that research should now focus on specific financial statement items. A single set of global accounting standards should be the result of those single accounting standards which are found to be most value-relevant, that is to best suit the information needs of investors. As a result, empirical research should turn to the specific IASB and FASB joint projects, with the purpose of providing evidence which can support standard setting decisions on specific issues. For instance, accounting for financial instruments, revenue recognition and leases accounting are currently up for discussion and therefore deserve attention from academic research.

Finally, as highlighted by Ball (2006), a single set of high quality global accounting standards would provide different advantages. It would provide easier access to foreign capital markets and would make cross-border acquisitions and divestitures easier. Moreover, it should lower the cost of capital for companies both in absolute terms and in comparison with other firms by increasing international comparability. As a result, a single set of global accounting standards should make capital markets more efficient and level the playing field for firms worldwide. On the other hand, empirical research has widely documented that financial reporting quality is only one of the factors necessary to build a more integrated capital market. Differences in national enforcement regimes, legal systems, auditing practices, corporate governance, ethical norms and financial service industries raise doubts on how much a single set of accounting standards can achieve without the mechanisms for securing uniform implementation and enforcement.

Undoubtedly, the lack of a global regulator to ensure uniform adoption and enforcement reduces the benefits of common accounting standards. Therefore, there is a need to develop mechanisms that contribute to really making capital markets more integrated and to maximising the efficacy of international accounting standards.

If building an integrated capital market both at a European and global level is a real desirable goal, then convergence in at least some aspects of the regulatory framework, such as investor protection, market supervision and regulation, tax regulation, or corporate governance standards, should be further promoted starting from Europe itself. This paper therefore argues that, in line with the European Commission's goals, market integration at a

European Union level should be further fostered in order to complete the creation of a single market. Harmonization of the legal enforcement systems, competition rules, market access conditions, and effectiveness of the legal systems are factors that appear better able to guarantee comparable accounting practices across countries. This is a key issue which deserves further scrutiny and discussion not only at an academic but most of all at a policy-making level.

The G20 governments also have a key role to play in this process, as do national and regional standard-setters and regulators. The G20 governments have endorsed the aim of establishing a single set of high-quality global accounting standards at their London summit in April 2009, in the early days of the global financial crisis, and they have reiterated it several times. Effective political support is critical to this project, as whether the world gets a single set of accounting standards will be determined by governments, not by standard setters.

Having said this, it must also be taken into account that IAS/IFRS will in any case be a global language with many different dialects. An important feature of IAS/IFRS is in fact that they are primarily principle-based, that is they establish broad rules and guidance on a conceptual basis for accountants to follow, instead of specifically outlined rules. IAS/IFRS are quite open and flexible, and therefore able to fit diverse institutional settings and traditions. This is critical when applying IAS/IFRS on an international scale, as effective use of IAS/IFRS varies greatly with the context. As a result, differences in IAS/IFRS implementation will no doubt persist as we do not live in a homogeneous world. However, as long as high accounting standard quality is maintained, we should not worry about the emergence of local dialects, so long as they are close enough to their mother tongue to be understood without difficulty.

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**Table 1 – Value-relevance studies on IAS/IFRS adoption in Europe**

Paper	Adoption mode	Single/multi-country setting	Sample	Period	Accounting Measures	Type of value-relevance study	Model	IAS/IFRS effect
Aharony <i>et al.</i> (2010)	Mandatory	Multi	14 European Countries	2004-2006	Book value of equity, earnings, goodwill, research and development expenses, revaluation of property, plants and equipment (per share)	Relative and incremental association tests	Price and return regressions	Positive
Aubert and Grudnitski (2011)	Mandatory	Multi	15 European Countries	2004-2005	Earnings per share	Incremental association test	Return regression with a dummy variable for accounting standards	None
Agostino <i>et al.</i> (2011)	Mandatory	Multi	15 European Countries	2000-2006	Book value of equity and earnings per share	Incremental association test	Price regression with a dummy variable for accounting standards	Mainly positive
Barth <i>et al.</i> (2008)	Voluntary	Multi	Worldwide (13 European Countries)	1994-2003	Book value of equity and earnings per share	Relative association test	Price regression and reverse regression of earnings on share price	Positive
Bartov <i>et al.</i> (2005)	Voluntary	Single	Germany	1998-2000	Earnings (deflated by the market value of equity at the beginning of the year)	Incremental association test	Return regression with a dummy variable for accounting standards	Positive
Callao <i>et al.</i> (2007)	Mandatory	Single	Spain	2004 (interim reconciled statements)	Book value of equity	-	Comparison of differences in the book-to-market ratio before and after IAS/IFRS adoption	None
Clarkson <i>et al.</i> (2011)	Mandatory	Multi	13 European Countries and Australia	First time adoption from 2005 onwards (reconciled statements)	Book value of equity and earnings (per share)	Relative association test	Nonlinear price regression	None
Devalle <i>et al.</i> (2010)	Mandatory	Multi	5 European Union countries	2002-2007	Book value of equity and earnings (per share)	Relative association test	Price and return regressions	mixed evidence
Gjerde <i>et al.</i> (2008)	Mandatory	Single	Norway	2005 (reconciled statements)	Book Value of equity, earnings, operating	Relative and incremental association	Price, return and abnormal return regressions	Mixed evidence

					revenue, operating costs, net financial costs, net unusual income (per share)	tests and marginal information content studies		
Horton & Serafeim (2010)	Mandatory	Single	UK	2005 (reconciled statements)	Book value of equity and earnings (per share)	Incremental association test and marginal information content study	Price and abnormal return regressions	Mainly positive
Hung & Subramanyam (2007)	Voluntary	Single	Germany	1998-2002	Book value of equity and earnings	Relative and incremental association tests	Market value of equity regression	None
Iatridis & Rouvolis (2010)	Both voluntary and mandatory	Single	Greece	2004- 2006	Book value of equity and earnings (per share)	Relative association test	Price and return regressions, and reverse regression of earnings on stock prices	Positive
Jarva & Lantto (2012)	Mandatory	Single	Finland	2005 (reconciled statements)	Book value of assets, book value of liabilities and earnings	Relative and incremental association tests	Market value of equity regression (All variables are deflated by market capitalization)	None
Jermacowicz <i>et al.</i> (2007)	Voluntary	Single	Germany	1995-2004	Book value of equity and earnings	Relative association test	Market value of equity regression (All variables are deflated by market value of equity at the beginning of the period)	Positive
Karampinis & Hevas (2011)	Mandatory	Single	Greece	2002-2007	Book value of equity and earnings, accruals and cash flow from operations (per share in price regression, deflated by market value of equity in return regression)	Relative association test	Price and Return regressions	Minor improvements
Morais & Curto (2008)	Mandatory	Single	Portugal	1995-2005	Book value of equity and earnings (per share)	Relative association test	Price regression	Negative
Morais & Curto (2009)	Mandatory	Multi	14 European Union Countries	2000-2005	Book value of equity and earnings (per share)	Relative association test	Price regression (All variables are deflated by the book value of equity)	Positive



Paananen & Lin (2009)	Both voluntary and mandatory	Single	German	2000-2006	Book value of equity and earnings (per share)	Relative association test	Price regression and reverse regression of earnings on price (All variables are scaled by share price 6 months after the preceding year-end)	Negative
Prather-Kinsey <i>et al.</i> (2008)	Mandatory	Multi	16 European Countries	2004-2006	Book value of equity and earnings	Relative association test and marginal information content study	Market price regression (All variables are deflated by market value of equity at the beginning of the year)	Positive