Does the interaction between accounting method choice and disclosure affect financial analysts' information environment? The case of joint ventures under IAS 31

Abstract

IAS 31 allowed firms to choose between proportionate consolidation and the equity method to record joint ventures in the consolidated accounts of the venturer. Moreover, this election implied a decision about including information in the primary financial statements or in the notes. This paper investigates if financial analysts perceive accounting information differently depending on the method chosen conditioned to the disclosure of the required information in the notes. We analyze a sample of Spanish firms during 2005-2010. We not only consider earnings forecasts, but also examine target prices and stock recommendations. Furthermore, following Barron et al. (1998) we look at how this accounting choice affects analysts' information environment. Our results suggest that the choice of accounting regime does not affect the bias and accuracy of earnings forecasts, nor target prices nor stock recommendations, no matter if firms provide or not information in the notes. While the proportionate method implies lower dispersion in analysts' forecasts than the equity method, our tests do not allow us to confirm that the information environment depends on the accounting method. These results support the decision adopted in IFRS 11 to impose a unique method for the accounting of joint ventures.

Keywords: Proportionate consolidation; Equity method; Information disclosure; Earnings forecasting; Stock recommendations; Evaluating forecasts.

Clasificación JEL: M40, M41

¿Afecta la interacción de la elección del método contable y la divulgación de información al entorno informativo de los analistas financieros? El caso de los negocios conjuntos en la NIC 31

Resumen

La NIC 31 permitía elegir entre integración proporcional y el método de la participación para la inclusión de los negocios conjuntos en las cuentas consolidadas de los partícipes. Además, esta elección conllevaba la inclusión de cierta información sobre los negocios conjuntos en los estados financieros primarios o en la memoria. Este trabajo investiga si los analistas financieros perciben la información contable de forma distinta dependiendo del método elegido, condicionado a que se divulgue la información requerida en la memoria. Se analiza una muestra de empresas españolas en el periodo 2005-2010, y se considera la influencia de la decisión contable sobre las predicciones de beneficios, precios objetivo y recomendaciones sobre

acciones. Adicionalmente, siguiendo a Barron et al. (1998), se estudia si esta opción contable afecta al entorno informativo de los analistas. Nuestros resultados sugieren que la elección no afecta al sesgo ni a la precisión de las predicciones de beneficios, ni tampoco a precios objetivo ni a recomendaciones, al margen de que las empresas proporcionen o no información en la memoria. Pese a que la integración proporcional implica menor dispersión en las predicciones, los contrastes realizados no permiten confirmar que el entorno informativo se vea afectado por el uso de un método contable u otro. Estos resultados apoyan la decisión tomada en la NIIF 11 de imponer un único método para la contabilización de los negocios conjuntos.

Palabras clave: Integración proporcional; Método de la participación; Divulgación de información; Predicción de beneficios; Recomendaciones sobre acciones; Evaluación de predicciones.

1. INTRODUCTION

According to the International Accounting Standards Board (IASB) Conceptual Framework, comparability is one of the main attributes of financial information as it enhances usefulness, moreover "permitting alternative accounting methods for the same economic phenomenon diminishes comparability" (IASB 2010, paragraph QC25). Consequently, the IASB is aimed to eliminate alternative options to record economic transactions so that equal transactions are recorded equally. International Accounting Standard (IAS) 31 was a clear case in which an accounting choice existed; it allowed venturers to choose between proportionate consolidation (PC) and equity method (EM) to include in their consolidated accounts the investment in a joint venture (JV). Interestingly there was wide diversity in its application: "About half of the preparers with an interest in a jointly controlled entity apply the equity method, with the other half applying proportionate consolidation. Such a split varies according to jurisdictions: for example, France and Spain predominantly use proportionate consolidation and Germany and the United Kingdom predominantly use the equity method" (IASB 2011c, p.6).

As stated in IAS 31, under PC "the statement of financial position of the venturer includes its share of the assets that it controls jointly and its share of the liabilities for which it is jointly responsible. The statement of comprehensive income of the venturer includes its share of the income and expenses of the jointly controlled entity" (IASB 2003b, paragraph 33). While this became the recommended method as it "better reflects the substance and economic reality of a venturer's interest in a jointly controlled entity" (IASB 2003b, paragraph 40), IAS 31 also allowed the use of EM. However, one should look at IAS 28 to fully understand how this last method operates: "Under the equity method, on initial recognition the investment in an associate or a joint venture is recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The investor's share of the investee's profit or loss is recognised in the investor's profit or loss" (IASB 2003a, paragraph 10). Despite the differences, each method achieves the same figures for both net equity and net income, but obviously accounting ratios coming directly from primary financial statements differ. Thus, leverage ratios tend to be lower and economic profitability (return-on-assets: ROA) larger when EM is used in contrast to PC.

To compensate for the lack of information in the primary statements and to facilitate comparisons, IAS 31 required disclosure in the notes. When using EM, firms should disclose the aggregate amounts of assets and liabilities, classified in long-term and current, as well as income and expenses related to their interests in the JV (IASB 2003b, paragraph 56). When following the PC method, if the venturer recognized its interests in a JV using the line-by-line

reporting format (this is adding the elements to those of the venturer without providing any separation), the details required by EM should also be provided in the notes; this is particularly important to understand the performance of the JV, and in particular its contribution to total net income. Consequently, it is not possible to rank PC and EM in terms of information released. Indeed, this is the rationale behind the option allowed in IAS 31, which is subject to two assumptions, investors are indifferent to the alternatives and firms disclose the information required. In this study we consider how both aspects interact.

Notwithstanding the importance of the notes for professional equity investors, Cascino et al. (2013, p. 9) argue that "information recognized in the financial statements receives more attention than disclosure in the notes", what introduces doubts about the comparability of the information produced by both methods[1]. Regarding compliance, Hodgdon et al. (2008), among others, document significant non-compliance with the disclosure requirements of IFRS, however. Although prior studies do not look at IAS 31 disclosure, Tsalavoutas (2011) does. He also reports a general low level of compliance by Greek firms, and shows disclosure required by IAS 31 is in the lowest score quartile[2].

Soon after the IASB was created in 2001, one of the first projects was the elimination of the optionality in IAS 31, and about ten years later, in May 2011, International Financial Reporting Standard (IFRS) 11 Joint Arrangements was published, and precluded the use of PC for JVs (IASB 2011b). It is our view that further research is needed to analyze the effects of imposing a unique method for the accounting of joint ventures; in particular, we focus on its impact on an important stakeholders group, namely the financial analysts.

Financial analysts are among the most important users of financial reports and act as information intermediaries in the capital market. Processed information emitted by analysts as forecasts or recommendations is key to investors' decision making. Given that financial analysts may have an amplifying effect on the way financial statements are interpreted, it is crucial therefore to examine whether practitioners truly process all available information in an appropriate manner. Consequently, we aim to see if the two alternative accounting methods to record JVs have a differential effect on financial analysts' information environment, conditioned to the disclosure of the required information, and if this could affect their forecast abilities. Unfortunately, as discussed above, disclosure should not be taken for granted, and this paper

[1] Johansen and Plenborg (2013) provide evidence that Danish analysts highly value both financial statements and the notes. The authors make a cost-effectiveness analysis of disclosures in the annual report, but they do not consider information about joint ventures.
[2] Sample size is limited to the 18 firms out of 153 for which IAS 31 is relevant.

adds value to this type of research by investigating the interaction of an accounting choice, PC and EM, in the absence of footnote disclosure.

Next, we highlight some characteristics of the selected setting, Spain. Although the IFRS adoption brought an increase in the similarity of the financial reporting environment within the EU, Bilinski et al. (2103) provide evidence that analysts' accuracy still depends on the institutional and regulatory environment, being ownership concentration, enforcement, and legal origin potential explanations for different abilities amongst analysts. Spain is a country with high ownership concentration, very low enforcement, and a code law system. These are very different characteristics to those shared by countries where analysts' accuracy and the information environment have been under study so far[3]. Moreover, as shown by Ding et al. (2007), these factors are also potential explanations for the opportunity for earnings management, making the analyst's task more difficult than in other more transparent environments[4]. Regarding the topic of interest in this paper, the accounting model for JVs, it should be highlighted that before the adoption of IFRS, Spanish firms had total discretion to use either PC or EM for each JV. As reported by Giner and Veron (2012), before 2005 most of the transactions were recorded using PC (91%); there was a wide variety in the use of methods, however, and some companies consistently used one method while others combined both. Given that IAS 31 forced firms to follow the same method consistently for all JVs, we think this a perfect setting to explore how analysts interpreted the two different alternative methods.

In some way, this paper could be seen as an extension of another Spanish study, Espinosa et al. (2015), which does not detect differences in the value relevance of both methods, nor in its ability to predict future equity values and earnings. Interestingly, these authors suggest that the IAS 31 disclosure requirements have not been widely followed by Spanish firms during 2005-2010, which provides a natural setting to examine whether the analysts' information environment is affected by the accounting method in the absence of footnote disclosure. Thus, we identify if firms provide the required additional information or not and how this decision affects analysts' decisions.

This paper might be considered as a reaction to the comment made by Ramnath et al. (2008, p. 66) on how few studies "have addressed issues related to the impact of disclosure practices, enforcement standards, and accounting policy disclosures on analysts' forecasting activities", as well as a response to their suggestion to consider the effect of institutional and cultural

[3] Bilinski et al. (2013) report on Panel B Table 4 data regarding these factors. Spain is close in disclosure to the average (0.697, compared with 0.738), has more highly concentrated ownership than average (0.500 compared with 0.375), and has a very low enforcement, in fact the lowest index of the 16 countries under the study (-3.650 compared with an average of -0.818).

[4] Ding et al. (2007) show on Table 1 the so-called absence index, which is associated with earnings management, lack of transparency, and synchronicity of stock prices. Spain scores high in this index (28 compared with an average of 18.3).

differences on analysts' decisions. We analyze not only whether the accounting decision alters the ability of financial analysts to make earnings forecasts, but also price forecasts and recommendations. Following Barron, Kim, Lim, and Stevens (1998, BKLS hereafter) we also look at how the accounting decision affects analysts' information environment, specifically the quality of financial analysts' common and private information.

Our results do not provide evidence that bias and accuracy of forecasts depend on the accounting method used, however. Moreover, when making recommendations and providing target prices, success is not generally affected by the accounting method either. Nevertheless, when PC is applied to the JV, forecasts seem to be more concentrated around the consensus suggesting less differential information than when EM is used. Consistently with these results we also find that PC has more precision in common or public information than in private information, and even more than EM with regard to common information. These results are driven by the group of firms that do provide the footnote required by IAS 31, which is in accordance with the "limited attention notion" (Hirshleifer and Teoh 2003) and the "incomplete revelation hypothesis" (Bloomfield 2002). Despite the above, our regression results only confirm that the larger dispersion that EM conveys is related to the lack of footnote information required by IAS 31. Given that accuracy is not affected by the accounting method choice, it seems as if the aggregation process corrects any bias that might affect individual estimations. Our results point out that when there is disclosure, EM conveys more precision in private information than PC. Nevertheless, on the whole we cannot state that the accounting method affects the information environment measures, no matter if firms disclose information or not. In summary, our results do not suggest there are differences between the two methods allowed in IAS 31 to include a JV in the consolidated accounts of the venturer, and, in line with those of Espinosa et al. (2015), support the simplification achieved by imposing a unique method.

After this introduction, in section 2 we include the literature review and develop our hypotheses. Section 3 provides the research design and the sample. Section 4 is devoted to the results. Finally, in section 5 we outline our conclusions.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Literature review

Prior to the elimination of the PC method for the accounting of JVs in the consolidated accounts

of the venturer, there were some papers that argued about the advantages and disadvantages of the two methods (PC and EM), using different perspectives. Following a theoretical approach, Bierman (1992) argues that PC should be used for all investments, as it produces information closer to full consolidation. However, a strong criticism against PC for JVs is that the venturers do not have control over the assets (as there is joint control), and it is doubtful whether these elements could be considered theirs according to the IASB Framework. Nevertheless, despite the lack of consensus, the empirical literature is more in favor of PC. These papers normally use the reported statements and, based on the disclosed information, pro-forma statements under the other method are prepared for comparison purposes. Although none of the papers look at the impact on analysts' tasks, we briefly discuss them below as they might help to understand investors' views about both methods.

Comparing PC statements of Canadian firms and pro-forma statements prepared under EM, Graham et al. (2003) conclude that the former provides better predictions of future profitability; Kothavala (2003) shows they are more risk-relevant for explaining price volatility, but the opposite happens for explaining bond rating. On the contrary, Bauman (2007) concludes pro-forma PC statements of US manufacturing firms have greater relevance than EM statements for that purpose. The results of another US study by Stoltzfus and Epps (2005) confirm the superiority of PC for explaining bond ratings, but only for firms that guarantee the debt of JV investments. Based on a sample of French firms that use PC, Lourenço et al. (2012) find that the market views the assets and liabilities of the JV similarly to those of the venturer. Finally, looking at the Spanish listed firms, Espinosa et al. (2015) conclude that the two alternative methods, EM and PC, have similar valuation relevance and ability to forecast earnings. These papers use exclusively historical accounting data, but our study employs financial analyst forecasts, and does not rely on specific models (that impose severe conditions on the way prices impose accounting figures). Here we assume analysts read all the available information about firms (not just accounting data), and based on that make their own forecasts, without imposing any condition. Thus, our research is in line with Ohlson (2001), who highlights the importance of analysts' forecasts as a valuation input.

Prior literature has evidenced that the way information is presented in the financial statements influences the way company-specific information is processed and used, not only by non-professional investors, but also by experts (Acker et al. 2002, Hirst et al. 2004, Hodder et al. 2008). In addition, there is evidence that proves disclosure reduces analysts' forecast errors (e.g. Lang and Lundholm 1996, Higgins 1998, Hodgdon et al. 2008, Hope 2003a and b, Vanstralen et al. 2003). More recently, Lee et al. (2013) look at the impact of EM investments on the accuracy

and dispersion of analysts' forecasts in the US, and conclude that the results are worse than those obtained for firms without such investments[5]. It should be highlighted that they do not compare with the use of PC, but with firms that either maintain the investment at cost or consolidate. Using a subsample of firms with "Ownership near to 50 percent", the authors provide evidence that the non-consolidation of the EM investments undermines analysts' abilities to forecast investor earnings, although they cannot disregard that lack of disclosure could contribute to that result.

Such results can be explained using some theoretical arguments. Thus, Hirshleifer and Teoh (2003) posit investors are imperfect processors of publicly available information, and, owing to "limited attention", information that is presented in salient, easily processed form is assumed to be absorbed more easily than other less salient information, or that is only implicit in the publicly available information. It is generally understood that users can easily access and interpret accounting information contained in the primary statements. In addition, commercially available databases provide direct access to these statements, which facilitate computing relevant accounting ratios. In contrast, accounting information disclosed only in the notes is less straightforward. Here, investors and financial analysts must combine information from both sources to produce aggregated data to calculate ratios and other financial indicators as well as accruals, all of which are instrumental in predicting future earnings. Moreover, Bloomfield (2002) argues that the costs of extracting useful statistics from public data keep markets from fully revealing the meaning of those statistics. It is on the basis of the "incomplete revelation hypothesis", which "runs counter to the common assertion that accounting data are so widely analyzed that analysis costs could not possibly account for observed inefficiencies" (Bloomfield 2002, p. 242).

The interrelation between accounting policy choice and disclosure has also been studied. The discretion exercised by well-informed managers in disclosing information is perceived as a mechanism to mitigate the adverse selection in the capital market (Glosten and Milgrom 1985, Diamond and Verrechia 1991). In particular, the empirical studies have analyzed the relation between voluntary disclosure and financial information quality, but results depend on the measures used for both aspects (e.g. Francis et al. 2008). This paper deviates from this literature as it looks at compulsory information that derives from the accounting choice made by

[5] Lee et al. (2013) posit two non-mutually exclusive explanations. The "opacity effect" suggests the condensed information that EM produces in the primary financial statements (together with the lack of disclosure) increases information asymmetry. The "diversification effect" states that the diversification of the investor and its investee earnings streams enhances earnings predictability if both streams are not perfectly correlated and analysts forecast them independently. Their findings are consistent with both effects operating in the analysts' tasks, but the "opacity effect" dominates.

managers, and considers the analyst forecast abilities and the quality of the information environment based on BKLS measures. These constructs use error in the mean earnings forecast and dispersion of individual analysts' forecasts to calculate analysts' common and private information quality, and allow for a greater understanding of how financial analysts generate information and make decisions. Common information quality is affected not only by public corporate disclosures, including financial reporting and voluntary disclosures, but also by analysts' ability to process that information. On the other hand, private information quality is largely affected by analysts' ability to interpret public disclosures and acquire information from other sources. It is assumed that private information is unique to each analyst, but as Botosan et al. (2004) argue this is at odds with herding behavior.

BKLS measures have been used to analyze the impact of regulatory and accounting changes on the information environment (e.g. Mohanram and Sunder 2006, Begley et al. 2009, Beuselinck et al. 2010, Byard et al. 2011, Horton et al. 2013, Schaberl 2014). The evidence does not always suggest there is a persistent improvement in the quality of common information, while the impact on private information quality varies. Regarding IFRS adoption, Beuselinck et al. (2010), Byard et al. (2011), and Horton et al. (2013) conclude that there has been an improvement in both analysts' public and private information; although Byard et al. (2011) indicate that the evidence is greater for mandatory adopters with stronger reporting incentives. The relative importance of the increase in the precision of private and common information affects the impact on consensus, however. Thus, Horton et al. (2013) conclude that consensus decreases for mandatory adopters (due to the higher increase in private information precision compared to common precision), while Beuselinck et al. (2010) state that consensus does not change (as both changes are similar and compensate each other). Scharbel (2014) concludes that after SFAS 131, which increased the transparency of segment reporting by diversified firms, the precision of idiosyncratic information decreased, while consensus increased.

Compared with the vast literature on earnings forecasts, there are few papers that have focused on the influence of accounting related issues with other analysts' outputs, such as target prices and recommendations, although they evidence that investors pay close attention to them. To some extent, the success of target prices is related to the use of valuation models that incorporate earnings forecasts. Thus, Gleason et al. (2013, p. 82) conclude that "substantial improvements in price target investment performance occur when analysts appear to use a rigorous valuation technique rather than an heuristic". Demirakos et al. (2010) show that the choice of valuation model affects the accuracy of target prices in the UK, and the discounted cash flow model outperforms price-to-earnings models.

Target price accuracy has been studied in a few papers; neither Bonini et al. (2010) in their study on Italy nor Bradshaw et al. (2013) with regard to the US conclude that analysts accurately predict target prices on a persistent basis. In an international study, Bilinski et al. (2013) identify analyst- and country-specific characteristics that explain accuracy. Their results confirm that more skilled analysts have persistent and differential ability to issue more precise target prices, and accuracy is larger in countries with higher accounting disclosure quality (Spain is below the average disclosure index). They also find that target price accuracy improved after the 2005 IFRS adoption.

2.2. Hypothesis development

Given the importance of analysts in the allocation of economic resources through capital markets, we think it relevant to explore if they process equally efficiently the information about a JV regardless of its location in the financial report. Indeed, assuming firms disclose all information required by IAS 31, it is not possible to rank PC and EM in terms of information transmitted. This interpretation suggests that all analysts will make the effort or have the ability to read the notes and then make the necessary adjustments to transform this public data into private information; indeed, this is the rationale behind IAS 31. However, given that the location of the information differs under the two options allowed in IAS 31, the "limited attention notion" and the related "incomplete revelation hypothesis" suggest that they might affect differently to the analysts' information environment. Moreover, based on prior studies (e.g. Hodgdon et al. 2008, Tsalavoutas 2011, Mısırlıoğlu et al. 2013, Espinosa et al. 2015), we acknowledge firms might not disclose all required information. In particular, Espinosa et al. (2015) suggest that Spanish firms do not comply with the disclosure requirements in IAS 31; less than 50% of the largest firms listed in the Madrid Stock Exchange disclose that information.

Thus, our hypotheses consider cases without the footnote information required by IAS 31. As in Lee et al. (2013), we argue that the "opacity effect" mainly entailed in the EM method might create information asymmetry. This effect heightens the complexity of the forecasting task, which, as implied by the "limited attention notion", induces subjects to use simpler decision rules resulting in the incomplete use of available information and undermine performance; consequently PC would be superior to EM. The "diversification effect" leads to a contrary prediction, however. Given that EM separates the earnings associated with the investor from its share in the JV earnings, if the two streams are not perfectly correlated, independent forecast might be more accurate than the combined earnings figure. It leads us to the following null hypothesis:

$H1_0$: *On average, in the absence of the footnote information required by IAS 31, there is no difference in the quality of analysts' earnings forecasts as a result of the firm's decision to use either PC or EM to include a JV in its financial statements.*

Financial analysts do not limit their job to produce earnings forecasts, however. They also give recommendations to investors about buying, selling, or holding stocks, and provide target prices that should be consistent with their forecasts. To some extent it could be argued that earnings forecasts and price targets are merely supporting factors of stock recommendations, which is the analyst's ultimate goal (Schipper 1991). Accordingly, the IASB Conceptual Framework establishes that general purpose financial reporting should provide financial information about the reporting entity that is useful to existing and potential investors in making decisions about providing resources to the entity; among those decisions it specifically refers to buying, selling and holding equity, as well as debt instruments (IASB 2010, paragraph OB2).

Although one might think that there is no real reason to consider the three key summary measures in analysts' reports, these are not always aligned. Thus, we think it is convenient to analyze the impact of the accounting decision on each of them. The second null hypothesis is as follows:

$H2_0$: *On average, in the absence of the footnote information required by IAS 31, there is no difference in the success of recommendations and target prices made by analysts as a result of the firm's decision to use either PC or EM to include a JV in its financial statements.*

As long as target prices and recommendations reflect both accounting and non-accounting information, however, it is likely more difficult to find differences due to accounting data than when earnings forecasts are the output under study.

3. RESEARCH DESIGN AND SAMPLE SELECTION

3.1. Research design

In order to measure the quality of earnings forecasts, we have computed for each firm and year the bias and the accuracy of one-year ahead analysts' earnings forecasts[6]. The analysts' bias forecast error (FE) for each firm and year is measured as:

$$FE_{it+1} = (\text{Actual Earnings}_{it+1} - \text{Consensus Earnings Forecast}_{it+1}) / \text{Deflator}_{it+1} \quad (1)$$

where $\text{Actual Earnings}_{it+1}$ is the actual annual EPS for firm i in year t+1; $\text{Consensus Forecast}_{it+1}$

[6] The study has been replicated with a two-year horizon and results remain consistent with those reported in the paper.

is the median of all analysts' forecasts in period t for expected earnings in year t+1 for firm i; and $Deflator_{it+1}$ is the magnitude used to scale forecast errors. Regarding the deflator, we follow the Makridakis (1993)'s procedure, and use the average value of the actual earnings and the consensus earnings forecast, as this solution operates best in a majority of cases. It also satisfies theoretical and practical concerns; thus, it is able to mitigate scaling problems, and is robust from one data set to another, avoiding the influence of outliers (Leung 2011)[7].

We obtain the accuracy of analysts' forecasts by computing the absolute forecast error (AFE) for each firm and year as:

$$AFE_{it+1} = (|\text{Actual Earnings}_{it+1} - \text{Consensus Forecast}_{it+1}|)/\text{Deflator}_{it+1} \quad (2)$$

where the variables are explained in (1), the only difference being the absolute value in the numerator.

The two previous measures focus on the performance of the consensus forecasts, but neither FE nor AFE take into consideration the dispersion of each individual forecast around consensus (D); consequently, the same consensus forecast could be obtained with different dispersion values. We understand that dispersion could reveal relevant information about the accounting methods from the analyst's point of view, however. In order to obtain a first measure that captures this characteristic, we focus on the variance of individual earnings forecasts with regard the consensus, and deflate following Makridakis (1993), that is, using the average of the actual earnings and the consensus earnings forecast[8].

In addition, considering the incidence of dispersion jointly with errors in the consensus forecasts, we use the widely accepted BKLS (1998)'s measures. The forecast error is a construct used as a proxy for earnings surprise, and this measure together with the analysts' forecast dispersion proxy for the uncertainty among market participants. BKLS (1998) provide an analytical model that links these empirical proxies with the theoretical properties of the information environment; following the literature the quality of information refers to its precision (the inverse of its variance). We look at the BKLS measures to capture the quality of analysts' common or public information (COMMON) as well as private information (PRIVATE). COMMON and PRIVATE are measured using the expected forecast dispersion (D), the expected squared error in the mean forecast (SE), and the number of unique analysts issuing forecasts (N) as follows (see Barron et al. 1998, Corollary 1, p. 428):

$$\text{COMMON} = [SE - D/N]/[(1 - 1/N)* D + SE]^2 \quad (3)$$

[7] Results remain consistent when other deflators are used. In particular, we follow Leung (2011) and use: actual price, price in t+1, and EPS consensus in t+1.

[8] Results are similar if we deflate by the mean and use the coefficient of variation.

$$PRIVATE = D/[(1 - 1/N)* D + SE]^2 \quad (4)$$

The sum of both components gives the quality of total information; following BKLS (1998) the proportion of the total analysts' information that is due to common information is called CONSENSUS, being (1-CONSENSUS) a proxy for information asymmetry. Different to COMMON and PRIVATE, this measure of CONSENSUS is a non-dimensional measure, which is an important attribute in order to test the differences between subsamples in per share variables. Thus:

BKLS CONSENSUS = COMMON/(COMMON + PRIVATE) =

$$= [SE - D/N]/ [(1 - 1/N)* D + SE] \quad (5)$$

As in the prior literature to empirically estimate COMMON and PRIVATE, we substitute *ex-post* realized squared error (SE) and dispersion (D) as proxies for the expected values (see Barron et al. 2002b, p. 828):

$$SE_{it+1} = (\text{Actual Earnings}_{it+1} - \text{Consensus Earnings Forecast}_{it+1})^2 \quad (6)$$

$$D_{it+1} = \frac{1}{N-1} \sum_{s=1}^{N} (\text{Analysts}' \text{ Earnings Forecast}_{sit+1} - \text{Consensus Earnings Forecast}_{it+1})^2 \quad (7)$$

Where s= each unique analyst issuing forecasts (analyst 1, analyst 2, …, analyst N)

It should be noted that in consistency with the prior deflated errors, both SE and D are scaled by the average value of the actual earnings and the consensus earnings forecast[9]. There are some computational problems, however. First, it is possible to find negative values for the information quality measures; if SE < D/N, then the numerator of COMMON is negative. This occurs in approximately 20% of observations, and in these cases as in prior papers (e.g. Barron et al. 2002a, Begley et al. 2009, Beuselinck et al. 2010), we take SE as the numerator of COMMON. Barron et al. (2002a) show that this approximation is valid when the number of analysts that make predictions is greater than 8, and our sample has a mean value of 12. Therefore, significant biased results due to this approximation are not expected[10]. Second, as shown in Begley et al. (2009), the estimated values of COMMON and PRIVATE are highly skewed to the right. Therefore, as in that study, we use the square roots of the aforementioned figures as the information quality variables.

We first perform median tests and compare the forecast errors and the dispersion, as well as the information quality measures for the two groups of firms that use PC and EM. Through this comparison, we should be able to determine if bias and accuracy in analysts' forecast ability is

[9] Using unscaled D and SE, or scaling by the absolute actual earnings as well as stock price yield consistent results.
[10] If we delete these observations, we obtain similar results to those presented here.

associated with the accounting method. Furthermore, the BKLS measures will allow us to understand if the different information given by the two methods implies differences in analysts' public information, private information, or both. Next, we perform these analyses separating those observations that disclose and do not disclose the required footnote in order to test our hypothesis.

As a second step, we regress these measures over the variable of interest, the accounting method, and some controls, for the whole sample and for the two subgroups with and without the footnote. In particular, we control for the extent of analyst following, as more intense competition provides a greater incentive to accurately forecast earnings (Hope 2003b), and other variables reflecting managerial incentives, such as firm size, leverage and growth. Firm size is a proxy for the information set of a given analyst (Brown et al. 1987). Larger firms and growth firms tend to have greater analyst coverage and smaller forecast errors as well as forecast dispersion (Bhushan 1989, Capstaff et al. 1999). Leverage represents the extent of reliance on external finance that could affect the quality of a firm's external reporting (Preiato et al. 2013). As in Mohanram and Sunder (2006) and Begley et al. (2009) performance dummies are included because uncertainty about earnings is higher when earnings performance is poor. Thus, we use the following research design:

$$INF_{it} = \alpha_0 + \alpha_1 D\_meth_{it} + \alpha_2 N_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 D\_loss_{it} + \alpha_6 D\_miss_{it} + \alpha_7 MTB_{it} + e_{it} \quad (8)$$

where for each firm and year, INF: properties of the information contained in analysts' earnings forecasts (COMMON, PRIVATE, TOTAL, and CONSENSUS), as well as AFE, and D, as these measures have been used in prior related literature (e.g. Begley et al. 2009, Beuselinck et al. 2010; Byard et al. 2011); D_meth: dummy variable that takes a value of 1 if EM is applied, 0 otherwise; N: analyst following (number of unique analysts issuing forecasts); SIZE: natural logarithm of market capitalization; LEV: debt/total assets; D_loss: dummy variable that takes a value of 1 if actual earnings per share in period t is negative, 0 otherwise; D_miss: dummy variable that takes a value of 1 if the firm's actual earnings is below the consensus of analysts' forecasts for a given time horizon, 0 otherwise; MTB: market-to-book ratio which is the proxy for growth.

To reduce the influence of outliers and skewness, both the dependent and independent variables are standardized rank (0, 1) variables as in Barron et al. (2002b). The regressions use firm-clustered standard errors as in Petersen (2009) to control for the cross-sectional dependence of

observations[11]. The regression analysis is performed for the two groups that disclose and do not disclose the require footnote.

The second hypothesis refers to the financial analysts' success in recommending an action, or in estimating the target price conditioned to the existence of information in the notes. Next, we explain how we compute a summary indicator for the analysts' recommendation about a particular firm and how we establish their "success".

In order to summarize the recommendations, we use two scores: i) MARK, which is an average score varying between 1 (all recommendations are "Sell"), and 3 (all recommendations are "Buy"), and ii) REC, which is computed dividing the number of positive recommendations by the total number of positive and negative recommendations (excluding neutral). To determine the success, we compare both analysts' consensus scores with two different measures: i) the market return adjusted by dividends, $(P_{t+1} - P_t + div_t)/P_t$; and ii) the relative change in the book value of equity adjusted by dividends, $(BV_{t+1} - BV_t + div_t)/BV_t$, which is based on accounting data and avoids having to take market volatility into account. We consider their recommendations a success when the recommendation is positive -suggesting to buy- (negative -suggesting to sell-) and the return is positive (negative). Target price success measures whether a target price is met on the last day of the 12-month forecast horizon. The variable takes the value of 1 if the target price is above (below) the current price and the stock price on the last day is greater (lower) than the current price. In other words, the estimation is perceived as successful if an increase (or decrease) in price is expected and this condition is met at the end of the forecast period.

Finally, we measure the bias and accuracy in target prices by deducting the consensus target price from the actual 12-month-ahead closing stock price, and, as in our prior forecast error constructs, we use the Makridakis (1993)'s procedure for deflating[12]; we calculate both the signed and unsigned forecast error, which capture bias and accuracy respectively. For completeness, we calculate a measure of target price dispersion that is the variance of the individual target price estimates with regard the consensus, divided by the mean value of target price and actual price at the end of 12-month forecast horizon.

As in prior literature (e.g. Demirakos et al. 2010, Bilinski et al. 2013, Bradshaw et al. 2013) we also examine the explanatory variables of accuracy and dispersion in the target price estimates.

[11] Results do not vary if we do a decile rank regression as in Byard et al. (2011), they also remain consistent if robust errors are calculated instead of using Petersen (2009)'s procedure.
[12] We have considered two alternative deflators: actual price at the 12-month-forecast horizon, and target price. Results remain unchanged in both analyses.

As in our prior regression we not only use the accounting method, but also some control variables. Firm specific characteristics are captured through analyst following and size, which are proxies for the richness of the information environment, and leverage and market-to-book are used as proxies for the stock predictability. Following Bilinski et al. (2013), we add EPS forecast error, which is the main input into the valuation model used to produce the target price; and TP boldness, which captures how far from the current market consensus the analyst's prediction actually is. It is argued that the larger the EPS forecast error and the larger the TP boldness, the less likely a target price will be met. As in Demirakos et al. (2010) we also introduce the recommendation type for each stock/year. Consequently, we run the following regression:

$$INF_{it} = \alpha_0 + \alpha_1 D\_meth_{it} + \alpha_2 N_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 MTB_{it} + \alpha_6 AFE_{it}^{eps} + \alpha_7 Boldness_{it} + \alpha_8 Rec\_pos_{it} + e_{it} \quad (9)$$

where for each firm and year, INF: TP success constructs (AFE and Dispersion in target price estimates); D_meth: dummy variable that takes a value of 1 if EM is applied, 0 otherwise; N: analyst following (number of unique analysts issuing target price estimates); SIZE: natural logarithm of market capitalization; LEV: debt/total assets; MTB: market-to-book ratio; AFE^{EPS}: Absolute forecast error in one-year-ahead earnings forecasts; Boldness: the absolute value of the ratio of target price to the actual price on the TP issue date less 1; and Rec_Pos: percentage of positive recommendations over the neutral and negative recommendations.

As in (8) both the dependent and independent variables are standardized rank (0, 1) variables, and to control for the cross-sectional dependence of observations we use firm-clustered standard errors[13].

3.2. Sample selection

Our study refers to Spanish listed firms that are venturers in a particular type of JV, a jointly controlled entity with the legal status of a corporation, and focuses on the period 2005-2010. European firms subject to mandatory IFRS adoption were required to switch to IFRS for financial reporting purposes for fiscal years beginning on or after January 1, 2005. As mentioned above, IAS 31 was in force at that time and allowed the use of PC or EM for JVs in the consolidated accounts of the venturer. In May 2011 this standard was replaced by IFRS 11, which then imposed EM. Although the application of the new standard was not immediate[14], it should be noted that some firms might have changed their preference once they were aware that

[13] Results do not vary if robust errors are calculated using Petersen (2009)'s procedure instead, and if we run a decile rank regression.

[14] IFRS 11 was endorsed by the EC the 29 of December 2012, to be applicable the 1st of January 2014.

PC was being phased out. Thus, we limit our study to the six-year period 2005-2010.

The population under study includes all public companies registered on the Madrid Stock Exchange. Having downloaded their financial reports and read them carefully, we were able to identify which firms had invested in the selected type of JV; therefore, as in Espinosa et al. (2015), the initial sample of 147 firms was reduced to 100 firms. Given that not all firms had JVs each year, and for some firms there was no information for the six-year analysis period (while some became listed during the period, others ceased), the number of firm-year observations was reduced to 502. In order to perform the study, we require information regarding analysts' forecasts; we use the Factset Estimates database, which provides earnings forecasts as well as target prices and stock recommendations. Individual estimates for each analyst and the consensus of these individual predictions (mean, median, and standard deviation) are also available. In addition, the database provides data on actual values, which allows for comparison with analysts' forecasts in order to assess their accuracy. Due to the lack of analysts' forecasts for some firms, the final sample is reduced to a maximum of 385 firm-year observations[15], from 92 distinct firms. As is common in the literature, we have excluded the 7 observations with negative book value of equity.

To test whether the analysts' information environment is affected by the accounting method, in the absence of the required footnote disclosure, we have read the footnotes of all the 385 observations and computed a dummy variable D_discl that takes a value of 1 if a firm fulfills the disclosure requirements and 0 otherwise. We consider a firm satisfies IAS 31 when the aggregate amounts of current assets, long-term assets, current liabilities, long-term liabilities, income and expenses related to its interests in joint ventures are disclosed in the financial statements.

(Insert table 1 about here)

As we can see in Panel A Table 1 about three-fourths of firm/year observations followed PC, while one-fourth followed EM. This wide use of PC is in line with Giner and Veron (2012) and Espinosa et al. (2015). Only 142 observations provided the disclosure required by IAS 31, of which 118 used PC and 24 applied EM. Therefore, differences in the information available to financial statement users might result from differences in compliance with disclosure rules, rather than from the method chosen to account for JVs.

[15] This number is lower than in Espinosa et al. (2015), as they have 488 observations, but this should not come as a surprise given that the different methodological approaches require different databases, Compustat there and Factset here.

As shown in Panel B Table 1, the statistical significance test does not allow to reject that firms have equal mean size, measured as the natural logarithm of total assets, although the medians (which are not affected by outliers) are significantly different at 5%. Regarding the leverage ratio measured by debts divided by total assets (LEV), both debts and total assets are lower when EM rather than PC is used. The proportional impact of lower debts will be lower in total assets causing, ceteris paribus, a decrease in the ratio. In our samples, both mean and median leverage ratios are significantly smaller (at 1%) under EM. The comparison between market-to-book ratios for the two subsamples suggests that investors do not perceive differences either in the means or in the medians when firms use PC or EM.

This Panel B also shows measures based on earnings forecasts that will be used to capture the analysts' information environment and compare them between firms using PC and EM. Specifically, we report actual earnings per share (EPS), analysts' consensus forecasts of earnings per share (FEPS), the standard deviation of individual forecasts (STD), together with the number of issuing forecasts (N) from individual analysts. We consider Factset's consensus of earnings per share forecasts as the median value of all forecasts for individual analysts. Forecasts are taken two months after fiscal year end, to ensure that analysts know the last annual report, as this is the deadline to publish accounts in the Spanish security exchange commission. For the Spanish stock market, the average number (N FEPS) is about 13 and the maximum 42 (non reported). Given that the number of shares is an arbitrary number, the per-share figures are not directly comparable between companies and subsamples, and the tests should be read with caution. Mean and median difference tests suggest that the consensus forecast is larger when PC is used, and the dispersion of individual forecasts is larger in the EM subsample. The number of analysts issuing forecasts is not affected by the accounting method.

Finally, in this Panel B we include summary data about prices and recommendations. In particular, we report the number of positive (REC+) and negative recommendations (REC-), the mean of the recommendation score[16] (MARK), the market value per share (PRICE), the consensus of target prices, measured as the median of individual target price estimates as of two months after fiscal year end as explained before (TP), the standard deviation (STD TP), and the number of analysts issuing target price estimates (N TP). Despite the differences in means and medians for prices and target prices, the same caution expressed for the per share data should also be taken into account with these variables. Regarding dispersion measured through the standard deviation there are no differences between both groups of firms. Focusing on

[16] Factset Estimates database divides recommendations into five broad categories: Buy (1), Overweight (1.5), Hold (2), Underweight (2.5), and Sell (3) -in brackets the Factset's rate for each category-. The mean rate is computed using all individual recommendations. Although Factset gives the largest (lowest) value to the recommendation about selling (buying), we reverse the scores in order to have a positive correlation between the score and the recommendation.

recommendations, PC firms receive more positive recommendations than EM firms in mean terms, while EM firms receive more negative recommendations; but this is only statistically supported at 10% in mean terms for negative recommendations. In the case of the medians, this pattern disappears. Focusing on the MARK variable, which is an alternative way to summarize recommendations, there are no significant differences between the two subsamples. Finally, figures for the number of analysts issuing target prices are practically identical in both subsamples with no evidence of any differences in either means or medians.

4. EMPIRICAL RESULTS

Panel A Table 2 provides the bias of the earnings forecasts calculated as in (1), and Panel B the accuracy of the forecasts calculated as in (2). Median forecast errors are shown for the whole sample, as well as for the PC and EM subsamples, and for the two groups that indicate the footnote required by IAS 31 (D_discl=1) and do not provide such information (D_discl=0)[17]. Panel C Table 2 provides the same details for the dispersion in the unique earnings forecasts measured through the variance of individual earnings forecasts deflated by the average value of the actual earnings and the consensus earnings forecasts (as in Makridakis 1993)[18].

(Insert Table 2 about here)

The median difference tests do not indicate any statistical difference between forecast errors (both signed and unsigned) for those firms using PC and for those employing EM, no matter if they disclose information or not. As for dispersion, it is lower when PC rather than EM is used, which is consistent with the "opacity effect", but the differences are only statistically significant when the total sample is considered. The table also shows the differences between subgroups that disclose and do not disclose the required footnote; the dispersion is larger when there is no information, but is not statistically significant when we split between accounting methods. Interestingly when firms include the footnote, analysts are more pessimistic about the future than when firms do not include it.

Table 3 reports the median of the BKLS information quality measures: COMMON, PRIVATE, TOTAL, CONSENSUS, and ASYMMETRY for the PC and EM subsamples. In Panel A we provide the results for the whole sample, while in Panels B and C we separate between

[17] We provide the results with the median forecast errors as they are less influenced by extreme values than the mean errors; the results, however, do not vary when mean errors are used. Results are also consistent when we consider horizons of 2, 3 and 4 years, although few analysts make predictions for the longest horizons.

[18] Panel C Table 2 has been replicated using the standard deviation and similar results are found. Results do not vary if dispersion is measured through the coefficient of variation.

observations that disclose and do not disclose the information required by IAS 31 respectively. While neither the statistics of COMMON nor PRIVATE (nor TOTAL) differ between the two subsamples in Panel A, the medians of CONSENSUS (and ASYMMETRY) are statistically different at 10%. This result is consistent with the figures appearing in this panel for the precision of each type of information per method. Thus, the PC method has more precision with a greater CONSENSUS (0.53 vs 0.38) and lower ASYMMETRY (0.47 vs 0.62) in relation to the EM. Similar results are also obtained when firms use PC and disclose footnote information (Panel B); the CONSENSUS in PC is higher (0.59 vs 0.40) and the ASYMMETRY is lower (0.41 vs 0.60) than in EM. When there is no such information the differences appearing in Panel C are not statistically significant[19]. These results provide some evidence that although both methods transmit the same information, analysts do not use them equally. The larger consensus that PC achieves compared with EM is consistent with the "incomplete revelation hypothesis", as consensus relies on common information that requires less effort than obtaining idiosyncratic information.

(Insert Table 3 about here)

The unreported Spearman correlations between the BKLS measures of information precision (COMMON, PRIVATE, and TOTAL) and the accounting method (D_meth) are not statistically different from zero. Nonetheless, the correlation between the accounting method and the CONSENSUS is negative and statistically significant at a 10% level, suggesting lower consensus when EM is used, which is consistent with the results shown in Table 3. As for dispersion, in consistency with prior results, the correlation with D_meth is positive and significant, suggesting dispersion is higher when EM is used. The high correlations between the information constructs and many of the control variables suggest that is important to control for these factors in assessing the effect of the accounting method on these constructs[20]. To examine whether the correlations among control variables are problematic in regression estimations, we use variance inflation factors (VIFs) to diagnose multicollinearity. Overall VIFs are low, suggesting it is unlikely that this is a significant issue in interpreting the results of the regressions.

In Table 4 we provide the regression results using six dependent variables: the four BKLS constructs, as well as the information quality measures that capture accuracy and dispersion.

[19] Similar results are obtained if mean values are used instead of median values, with the only exception of COMMON, where there are significant differences (10%) between the two accounting methods, being lower for EM.

[20] Our correlation results are very similar to those in Begley et al. (2009), which report Spearman correlations for a US sample during the period 1997-2006.

Panel A reports the results for the complete sample; the explanatory power of the model ranges between 0.09 (for CONSENSUS), and 0.40 (for D); these values are comparable to those reported by Beuselinck et al. (2010) for the EU (0.06 for CONSENSUS, also the lowest, and 0.19 for D the largest), and for the US (0.034 for CONSENSUS and 0.184 for D); Begley et al. (2009) also report results for the US (0.125 for COMMON and 0.159 for D)[21].

The accounting method, our main explanatory variable, is only significant when dispersion is the dependent variable, and as expected, the sign is positive. Thus, firms using EM have larger dispersion than those using PC. These results are consistent with those shown in Table 2 Panel C. Regarding the two performance variables, D_loss is highly significant when the BKLS constructs are the dependent variables, and has the expected negative sign. So, the worse a firm's performance is, then the more difficult the analyst's task becomes. Not surprisingly when D is the dependent variable, the coefficient is also highly significant but positive. However, D_miss is not significant, except for the regression with the dispersion construct as a dependent variable; and the number of analysts and the market-to-book variables are significant in some of the regressions.

In Panel B and Panel C we report the results for the observations that provide the required footnote disclosure and do not provide it, respectively. The accounting method is only significant in Panel B (Panel C) when private (dispersion) is the dependent variable. The positive sign of D_meth in the dispersion regression in Panel C, also shown in Panel A, suggests that the larger dispersion that EM produces is due to the lack of the footnote required by IAS 31. This result is consistent with the "opacity effect" and suggests analysts differ in their abilities to use the accounting information as reported in the primary statements. The positive sign of D_meth with PRIVATE in Panel B indicates that EM has more precision in private information than PC when there is footnote disclosure, which is consistent with results presented in Table 3.

On a whole, no matter if the footnote disclosure required by IAS 31 is provided or not, there is not enough evidence to reject the first null hypothesis that both methods affect equally the ability to produce earnings forecast. Nevertheless, the larger dispersion, when EM is used and there is no disclosure, suggests some differential ability of analysts to use accounting information.

(Insert Table 4 about here)

[21] When comparing these results, one should take into account that the independent variables of interest differ between the papers, as they focus on different issues as explained in section 2 of this paper, but most of the control variables are the same.

Regarding the other outputs of the analysts' task, which are the focus of attention of hypothesis two, results of the success in the recommendations on buying, holding, or selling stocks appear in Table 5. We provide the results for the whole sample, and for the observations that disclose and do not disclose the information required by IAS 31. Panel A reports percentages of success when the variable REC is used, and Panel B when MARK is employed; results are very similar in both panels. As it happens with the evidence discussed above, in general we do not find statistical differences between using PC and EM (neither with all recommendations, nor even when they are classified into positive and negative)[22], no matter if information is disclosed or not, and regardless of whether we use MARK or REC.

When analysts anticipate increases in the book value of equity, the percentage of success is very high (close to 80% with both constructs) and not surprisingly higher than the success in anticipating increases in prices (close to 50% with both constructs). It is interesting to remark that, for positive recommendations, the percentages of success are slightly higher for those firms that disclose information; but there is no evidence of any difference between PC and EM. When the recommendation is negative, the success in predicting decreases in prices is about 60%, but when predicting decreases in book value the success is lower. In this case considering the whole sample there is a significant difference at 5% in the success when using PC (35.1% with REC and 34.4% with MARK) compared with EM (16.2% with REC and 12.9% with MARK), but it is in the subsample without footnote information that this difference is statistically significant, in line with the "opacity effect" associated with the use of EM (40.3% with REC and 41.3% with MARK when PC is used, while 18.8% with REC and 14.3% with MARK when EM is employed)[23].

As for the success in estimating target prices, Panel C Table 5 provides the percentages of observations in which the price changes towards the consensus target price. There are no differences between firms following EM and PC; both are slightly above 50%, although the percentage of success is larger in the group that provides information. If we only consider those cases where an increase in price is expected, the results are very similar, and the success remains close to 50%. The success is greater when a decrease in price is expected: 72.4% of success for the PC sample and 55% for the EM sample. The differences are never statistically significant. Results are similar when we distinguish between observations that include or not the required footnote, although when there is information, the difference in the success in predicting

[22] We consider a recommendation to be positive (negative) when the mean value of REC is >0.5 (<0.5), and for MARK when it is >2 (<2). The results do not vary if we use the median value instead.

[23] Note that in both Panels A and B when the recommendation is negative, a success of 0% is observed in the EM subsample with footnote disclosure and we compute an accounting return as the benchmark. This is due to the very small number of observations in that subgroup (firms that apply EM, are not recommended, but disclose the information). In all these few cases (5 or less) analysts fail in the recommendation; i. e. book value of equity increase in t+1 despite the bad recommendation opinion.

decreases in price made for the PC sample is significantly larger[24].

(Insert Table 5 about here)

The goodness of target price is based on the bias and accuracy of the estimations which are included in Table 6 Panels A and B respectively. For the whole sample, the median absolute forecast error is 0.29, lower than the figure obtained by Bilinski et al. (2013) for Spanish companies during 2002-2009, which is 0.349. There are no significant differences between predictions made for firms that use PC or EM. In these panels we also report the results for the two groups that provide the footnote required by IAS 31 and do not provide such information, and, although errors are less biased and more accurate when there is information, the differences are not statistically significant.

Panel C reports the same details, but for the dispersion of target prices. As with the earnings forecasts dispersion (on Panel C Table 2), price dispersion is lower when PC is used, the difference being statistically significant at 5% for the whole sample, suggesting this method provides more similar information to all analysts. When we compare the results for the observations that disclose and do not disclose, we observe that dispersion is larger when there is no information; this is mainly due to those firms that use PC.

(Insert Table 6 about here)

Finally, in Table 7 we report the results of the two price regressions with AFE and D; and, as in the prior results the accounting method is not significant. The first two columns report the results with the full sample, and in the other columns we separate between observations that disclose (D_discl=1) and do not disclose (D_discl=0). Size and number of analysts, as well as the absolute error of EPS, generally appear to be significant when both variables are used. Not surprisingly the larger the EPS error, the larger the error in target price and dispersion[25]. As we did before, we use variance inflation factors (VIFs) to diagnose multicollinearity between the independent variables. Overall the VIFs are low, suggesting it is unlikely that this is an issue in interpreting the regression results.

(Insert Table 7 about here)

Consequently, despite the larger dispersion of EM, our second null hypothesis cannot be rejected, consequently we cannot state that the analysts' task depends on whether they rely on

[24] As in Panels A and B there are few cases that apply EM, provide the required information in footnotes, and a decrease in price is expected. So, the null success (an increase in price is observed) should be interpreted with caution.
[25] Results remain consistent if variables are not standardized ranked.

PC or EM, as well as the disclosure of the required information.

4.1. Sensitivity analyses

In addition to all the robustness tests that have been discussed throughout the paper, we perform several additional sensitivity analyses. First, despite the relatively low number of observations, we run the regressions using industry-fixed effects (1-digit industry based on the Factset classification) and year-fixed effects, to control for the impact of the industry to which the firm belongs, and the year in which the firm operates, and the results remain consistent. Second, we eliminate observations where firms report losses, as prior literature has evidenced that analysts value firms differently (e.g. Hayn 1995, Collins et al. 1999, Joos and Plesko 2005), and results do not vary. Third, given that 2005 was the first year of IFRS adoption and that there could have been some confusion (not only for firms but also for analysts), we eliminate that year from our study; unreported results indicate that the exclusion of such year does not affect our results. Lastly, following Bilinski et al. (2013) we consider the impact of the financial crisis on the ability of analysts to make predictions. Consequently, we introduce an indicator variable, which takes the value 1 from 2008 to the end of our sample period, and 0 otherwise. Unreported results confirm that the new variable is not significant, suggesting that despite the higher uncertainty there are no differences in the analysts' information environment.

5. CONCLUSIONS

This paper aims to appreciate if analysts use efficiently financial information regardless of the use PC or EM to account for a JV in the consolidated statements of the venturer, and the compliance with the disclosure requirements in IAS 31. In particular, in this paper we question if the way the information is provided alters the ability of financial analysts to make earnings forecasts and provide price targets in terms of bias accuracy, and dispersion, as well as stock recommendations that, despite being valuable to investors, have received limited attention in this type of research. Following BKLS we also consider how the accounting decision affects analysts' information environment, specifically the quality of financial analysts' common and private information, as well as consensus and asymmetry. This approach allows us to enrich the results obtained in Espinosa et al. (2015) by focusing on the joint impact of the accounting method and the effective disclosure over the financial analysts' information environment.

Our results do not suggest that the accounting method affects the bias and accuracy of earnings forecasts, although it might affect estimations at the individual level, as we find dispersion tends to be larger when EM is followed. In particular, when firms do not provide the footnote, EM has more dispersion than PC, in line with the "opacity effect", but the provision of the required

footnote disclosure eliminates the potential bias. Moreover, when looking at the aggregation of all individual decisions, we find that accuracy is not affected by the choice of the accounting method, thereby suggesting that the aggregation process corrects any bias that might affect individual estimations. Furthermore, PC has more precision with regard to common or public information than private information, and more than EM for common information; these results are driven by those firms that do provide the footnote, which is consistent with the "limited attention notion" and the "incomplete revelation hypothesis". Regarding target prices, although our results suggest that the accounting method affects dispersion, being larger when EM is used, they do not provide robust statistical support to the assumption that analysts' target prices or recommendations are affected by the accounting method used, but success tends to be larger when information is disclosed. On a whole, our results do not allow us to sustain that the accounting method clearly affects the information environment measures, no matter if firms disclose information or not, although when there is no information it seems PC makes analysts' task more straightforward. As in Espinosa et al. (2015), these results concur with the IASB's decision to eliminate one method for the JV, as from the informational perspective there are no advantages of having such a dual system.

This is a rather unexpected result given the chosen setting. We had assumed that the Spanish institutional setting, characterized by high ownership concentration, very low enforcement and consequently lack of disclosure, and a code law system, could affect analysts' information environment in such a way that they would act in a less sophisticated fashion. We found this not to be the case, however. Despite dealing with a relatively large stock exchange, not all companies actively pursue JVs, thus, the small sample size is a limitation of this research, as it does not allow to focus on firms where JVs display an important role, for instance.

Before concluding, we would like to add some ideas for further research. The first one is enlarging the sample to consider European firms that use IFRS. As mentioned before we are aware that institutional differences across countries remain, but this should not be an issue as can be controlled for. Moreover, this could allow focusing on firms where JVs are relatively important. Another different approach could be to run a laboratory experiment where individuals were faced with information prepared using the two different accounting methods, allowing us to analyze the impact on forecast accuracy. Moreover, thorough interviews to analysts we could also find out the potential impact of processing costs, and if having different accounting methods could really affect their decision-making process. Finally, we refer to the changes after 2010 the introduction of FRS 11 and the banning of the PC method. Given that some firms had to change their accounting method, it is an interesting scenario to see if the

change affected the analysts' information environment.

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Table 1: Descriptive Statistics

D_meth: dummy variable that takes a value of 1 if equity method is applied, 0 otherwise; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied; Subsample PC: Number of firms / Firm-year observations that have applied proportionate consolidation; Subsample EM: Number of firms / Firm-year observations that have applied the equity method; Differences PC - EM: Tests of differences in means and medians of each variable between the two subsamples; Mean: Mean of the variable in each subsample; Median: 50th percentile of the variable in each subsample; Pv-mean: P-value of the t-test of difference in means; Pv-median: P-value of a rank-test of difference in medians; SIZE: Natural logarithm of total assets; *LEV: Leverage ratio measured by debt divided by total assets; MTB: Market to book ratio; EPS: Earnings per share of the year t; FEPS: Consensus one-year-ahead earnings per share forecasts; STD: Standard deviation of individual one-year-ahead earnings forecasts; N FEPS: Analyst following for the year t+1 (number of analysts issuing one-year-ahead earnings forecasts); REC +/-: Number of positive and negative recommendations; MARK: Mean recommendations scores (maximum = 3 (buy); minimum = 1 (sell) ; PRICE: Market value per share; TP: Consensus target price; STD TP: Standard deviation of individual target prices estimates; N TP: Number of analysts issuing target prices estimates.*

Panel A. Number of observations by accounting method (D_meth) and footnote disclosure (D_discl)

	D_meth=0 (PC)	**D_meth=1 (EM)**	**All**
D_discl=1	118	24	142 (37%)
D_discl=0	164	79	243 (63%)
All	282 (73%)	103 (27%)	385 (100%)

Panel B. Company characteristics and analyst information environment by accounting method

	Subsample PC (64 firms /282 observations)		**Subsample EM (28 firms /103 observations)**		**Differences PC - EM**	
	Mean	**Median**	**Mean**	**Median**	**Pv-Mean**	**Pv-Median**
SIZE	8.72	8.91	8.59	7.98	0.54	0.01
LEV	0.38	0.37	0.29	0.29	0.00	0.00
MTB	2.65	2.03	3.02	1.98	0.29	0.89
EPS	0.80	0.86	0.86	0.53	0.88	0.02
FEPS	1.23	0.89	0.86	0.55	0.02	0.00
STD	0.17	0.11	0.25	0.14	0.02	0.08
N FEPS	13.17	13.00	11.81	13.00	0.56	0.87
REC+	6.71	4.50	5.69	5.00	0.12	0.69
REC-	3.55	3.00	4.51	3.00	0.07	0.32
MARK	2.13	2.24	2.13	2.16	0.99	0.31
PRICE	20.79	12.68	13.15	9.57	0.00	0.02
TP	22.29	14.40	14.72	10.80	0.01	0.01
STD TP	0.17	0.14	0.17	0.15	0.78	0.34
N TP	12.15	11	12.59	12	0.64	0.44

Table 2: Evaluation of earnings per share forecasts

All: Firm-year observations; Subsample PC: firm-year observations that have applied proportionate consolidation; Subsample EM: firm-year observations that have applied the equity method; D_meth: dummy variable that takes a value of 1 if equity method is applied, 0 otherwise; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied; FE_{it+1}*: Earnings forecast error for period t+1 calculated as in (1);* AFE_{it+1}*: Absolute earnings forecast error for period t+1 calculated as in (2); D: Dispersion of the individual forecasts measured as the variance of individual earnings forecasts deflated by the average value of the actual earnings and the consensus earnings; Pv-medians: P-value of a rank- test of difference in medians between the PC and the EM subsamples and between the D_discl=1 and D_ discl=0 subsamples, based on a ji-squared distribution*

Panel A: Bias of one-year-ahead earnings per share forecasts

Median Forecast Error (FE)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	0.06	0.06	0.06	0.97
D_ discl =0	-0.06	-0.06	-0.06	0.88
All	-0.01	-0.02	-0.02	0.72
Pv-medians D_ discl =1 vs D_ discl =0	0.00	0.10	0.00	

Panel B: Accuracy of one-year-ahead earnings per share forecasts

Median Absolute Forecast Error (AFE)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	0.18	0.11	0.18	0.64
D_ discl =0	0.26	0.40	0.29	0.29
All	0.23	0.35	0.26	0.50
Pv-medians D_ discl =1 vs D_ discl =0	0.50	0.12	0.20	

Panel C: Dispersion of earnings per share forecasts

Median Dispersion (D)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	0.01	0.03	0.02	0.12
D_ discl =0	0.03	0.04	0.03	0.25
All	0.02	0.03	0.02	0.02
Pv-medians D_ discl =1 vs D_ discl =0	0.11	0.63	0.05	

Table 3. BKLS information quality measures

All: Firm-year observations; Subsample PC: Firm-year observations that have applied proportionate consolidation; Subsample EM: Firm-year observations that have applied the equity method; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied; Pv-med: P-value of a rank-test of difference in medians between the PC and EM subsamples based on a ji-squared distribution; COM: Common information measured as the square root of [SE − D/N]/ [(1 − 1/N) D + SE]^2 where D is the dispersion of the individual forecasts, SE is the squared error in the median forecast, and N and the number of unique analysts issuing forecasts ; PRIV: Private information measured as the square root of D/[(1 − 1/N)* D + SE]^2 ; TOT: Total information measured as the sum of common and private information; CNS: Consensus information computed as COM/(COM+PRIV); ASY: Information asymmetry measured as 1 - CNS.*

Panel A. BKLS information measures by accounting method

Median Values	All	PC	EM	Pv-med
COM	1.46	1.56	1.28	0.17
PRIV	1.46	1.45	1.46	0.66
TOT	3.72	3.77	3.39	0.60
CNS	0.50	0.53	0.38	0.06
ASY	0.50	0.47	0.62	0.06

Panel B. BKLS information measures by accounting method for observations with IAS 31 disclosure requirements (D_ discl =1)

Median Values	All	PC	EM	Pv-med
COM	1.62	1.77	1.34	0.66
PRIV	1.67	1.46	2.47	0.19
TOT	4.00	4.00	4.95	0.58
CNS	0.58	0.59	0.40	0.07
ASY	0.42	0.41	0.60	0.07

Panel C. BKLS information measures by accounting method for observations without IAS 31 disclosure requirements (D_ discl=0)

Median Values	All	PC	EM	Pv-med
COM	1.38	1.47	1.17	0.29
PRIV	1.36	1.44	1.32	0.72
TOT	3.53	3.66	2.73	0.40
CNS	0.45	0.48	0.38	0.45
ASY	0.55	0.52	0.62	0.45

Table 4. Information quality measures regressions

This table reports results of the following OLS regressions, in which we transform the dependent and independent variables into standardized rank (0,1) variables:

$INF_{it} = \alpha_0 + \alpha_1 D\_meth_{it} + \alpha_2 N_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 D\_loss_{it} + \alpha_6 D\_miss_{it} + \alpha_7 MTB_{it} + e_{it}$

INF: Properties of the information contained in analysts' earnings forecasts (COM, PRIV, TOT, CNS, AFE and D); COM: Common information measured as the square root of [SE − D/N]/ [(1 − 1/N) D + SE]^2 where D is the dispersion of the individual forecasts, SE is the squared error in the median forecast, and N and the number of unique analysts issuing forecasts ; PRIV: Private information measured as the square root of D/[(1 − 1/N)* D + SE]^2 ; TOT: Total information measured as the sum of common and private information; CNS: Consensus information computed as COM/(COM+PRIV); AFE_{it+1}: Absolute earnings forecast error for period t+1 calculated as in (2); D: is explained above; D_meth: Dummy variable that takes a value of 1 if equity method is applied, 0 otherwise; N: Number of analysts issuing earnings forecasts; SIZE: Natural logarithm of market capitalization; LEV: Leverage ratio measured by debt divided by book value of equity; D_loss: Dummy variable that takes a value of 1 if actual earnings per share in period t is negative, 0 otherwise; D_miss: Dummy variable that takes a value of 1 if the firm's actual earnings is below the consensus of the analysts forecasts for a given time horizon, 0 otherwise; MTB: Market to book ratio; Adj. R2: Adjusted R-squared of the regression; Nobs: Number of available observations. D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied.*

*(*** Significant at 1%: ** at 5%; *at 10%)*

Panel A. BKLS Measures of one-year-ahead forecasted earnings per share (Nobs=276)

	COM	PRIV	TOT	CNS	AFE	D
Intercept	0.27***	0.31***	0.25***	0.44***	0.80***	0.80***
D_meth	-0.06	0.00	-0.03	-0.04	0.02	0.07*
N	0.16	0.21*	0.20*	-0.25**	-0.20*	-0.09
SIZE	0.11	0.02	0.11	0.29**	-0.19	-0.29**
LEV	-0.07	-0.06	-0.08	0.01	-0.01	0.08
D_loss	-0.22***	-0.17***	-0.20***	-0.11*	0.12**	0.16***
D_miss	-0.02	0.00	-0.02	-0.04	0.02	0.05*
MTB	0.32***	0.20**	0.30***	0.11	-0.23***	-0.32***
Adj. R2	0.31	0.15	0.30	0.09	0.25	0.40

Panel B. BKLS Measures one-year-ahead forecasted earnings per share *for observations with IAS 31 disclosure requirements (D_ discl =1)* ***(Nobs=105)***

	COM	PRIV	TOT	CNS	AFE	D
Intercept	0.28*	0.32*	0.28	0.36***	0.80***	0.84***
D_meth	0.03	0.13*	0.10	-0.12	0.12	-0.02
N	0.08	0.10	0.13	-0.11	-0.18	-0.13
SIZE	0.16	0.11	0.14	0.20	-0.11	-0.22
LEV	-0.17	-0.14	-0.20	0.11	0.14	0.14
D_loss	-0.24***	-0.15	-0.18*	-0.18**	0.01	0.17**
D_miss	0.00	0.07	0.02	-0.07	-0.06	0.05
MTB	0.37***	0.18**	0.32	0.18	-0.31**	-0.45***
Adj. R2	0.27	0.07	0.21	0.13	0.12	0.43

Panel C. BKLS Measures of one-year-ahead forecasted earnings per share *for observations without IAS 31 disclosure requirements (D_ discl =0)* ***(Nobs=171)***

	COM	PRIV	TOT	CNS	AFE	D
Intercept	0.27**	0.27***	0.24**	0.54***	0.79***	0.75***
D_meth	-0.09	-0.06	-0.08	-0.01	0.04	0.09*
N	0.21	0.20	0.18	-0.21	-0.17	-0.07
SIZE	0.06	0.15	0.19	0.09	-0.27*	-0.28**
LEV	-0.02	-0.07	-0.08	0.04	-0.03	0.05
D_loss	-0.20***	-0.11**	-0.16***	-0.14*	0.10*	0.14*
D_miss	-0.03	-0.03	-0.04	-0.02	0.06*	0.05
MTB	0.31***	0.23**	0.30***	0.09	-0.20***	-0.28***
Adj. R2	0.31	0.23	0.37	0.02	0.34	0.36

Table 5. Percentage of success based on analysts' recommendations and target prices

All: Firm-year observations; Subsample PC: firm-year observations that have applied proportionate consolidation; Subsample EM: firm-year observations that have applied the equity method; D_meth: dummy variable that takes a value of 1 if equity method is applied, 0 otherwise; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied; Market or accounting return success: if after a positive (negative) recommendation, the return increases, (decreases) (market returns are computed as the variation of prices one year adjusted by dividends, while accounting returns are computed as the variation of equity one year adjusted by dividends); Subsample PC: Firm-year observations that have applied proportionate consolidation; Subsample EM: Firm-year observations that have applied the equity method; Pv-means: P-value of the t-test of difference in means between the two subsamples. REC: Percentage of positive recommendations over the positive and negative recommendations; MARK: Mean of recommendation scores (maximum = 3 (Buy); minimum = 1 (Sell); Target price reversion: % of success in the target price estimation, if the price moves towards target price; TP>P: increase in price expected, i.e., consensus target price is higher than actual price at period t; TP<P: decrease in price expected, i.e., consensus target price is lower than actual price at period t. Nobs: Number of available observations.

Panel A: Percentage of success based on REC (Nobs=314)

	Market return			Accounting return		
	All	*D_discl=1*	*D_discl=0*	All	*D_discl=1*	*D_discl=0*
Subsample PC	53.1%	51.1%	58.6%	64.6%	66.7%	61.7%
Subsample EM	54.6%	55.6%	56.7%	55.7%	61.1%	51.5%
Pv-means	0.79	0.73	0.80	0.11	0.65	0.17
Subsample PC - REC>0.5	48.5%	52.4%	48.6%	78.0%	87.3%	81.1%
Subsample EM - REC>0.5	51.7%	61.5%	51.4%	80.0%	84.6%	82.4%
Pv-means	0.67	0.55	0.79	0.74	0.80	0.88
Subsample PC - REC<0.5	62.6%	48.4%	69.1%	35.1%	23.3%	40.3%
Subsample EM - REC<0.5	59.5%	40.0%	62.5%	16.2%	0.0%	18.8%
Pv-means	0.74	0.74	0.52	0.03	0.24	0.03

Panel B: Percentage of success based on MARK (Nobs=314)

	Market return			Accounting return		
	All	*D_discl=1*	*D_discl=0*	All	*D_discl=1*	*D_discl=0*
Subsample PC	50.5%	47.9%	55.0%	64.9%	65.6%	63.1%
Subsample EM	54.6%	66.7%	53.7%	57.7%	72.2%	51.5%
Pv-means	0.48	0.15	0.86	0.20	0.59	0.11
Subsample PC - MARK>2	46.7%	50.0%	45.5%	77.4%	84.8%	80.8%
Subsample EM - MARK>2	51.5%	66.7%	48.7%	78.8%	86.7%	78.9%
Pv-means	0.50	0.25	0.74	0.81	0.86	0.82
Subsample PC - MARK<2	59.3%	42.9%	66.7%	34.4%	18.5%	41.3%
Subsample EM - MARK<2	61.3%	66.7%	60.7%	12.9%	0.0%	14.3%
Pv-means	0.85	0.45	0.59	0.02	0.43	0.01

Panel C: Percentage of success based on target prices (Nobs=314)

	Target Price reversion		
	All	*D_discl=1*	*D_discl=0*
Subsample PC	54.1%	57.0%	52.2%
Subsample EM	50.6%	55.6%	49.2%
Pv-means	0.59	0.91	0.70
Subsample PC - TP>P	48.0%	54.7%	42.9%
Subsample EM - TP>P	49.1%	58.8%	45.2%
Pv-means	0.87	0.76	0.80
Subsample PC - TP<P	72.4%	66.7%	75.0%
Subsample EM - TP<P	55.0%	0.00%	57.9%
Pv-means	0.15	0.00	0.19

Table 6. Evaluation of target prices

All: Firm-year observations; Subsample PC: firm-year observations that have applied proportionate consolidation; Subsample EM: firm-year observations that have applied the equity method; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied; FE: Price forecast error of company i measured as $(PRICE_{12j} - TP_i) / DEF_{it+j}$ *where* $PRICE_{ii12}$ *is price per share of company i at the end of 12-month forecast horizon;* TP_i *is the consensus target prices for company i;* DEF_{it+j} *is a deflator measured as the average value of* $PRICE_{i12}$ *and* TP_{it+j}*; AFE*$_{it+j}$*: Absolute price forecast error of company i; D: dispersion of the individual forecasts measured as the variance of individual target prices deflated by* DEF_{it+j}*; Pv-medians: P-value of a rank-test of difference in medians between PC and EM subsamples, and between the D_discl=1 and D_ discl=0 subsamples, based on a ji-squared distribution.*

Panel A: Bias of target prices

Median Forecast Error (FE)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	-0.15	-0.12	-0.13	0.61
D_ discl =0	-0.19	-0.12	-0.17	0.36
All	-0.18	-0.12	-0.15	0.30
Pv-medians D_ discl =1 vs D_ discl =0	0.59	0.99	0.81	

Panel B: Accuracy of target prices

Median Absolute Forecast Error (AFE)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	0.26	0.27	0.26	0.99
D_ discl =0	0.32	0.34	0.33	0.76
All	0.28	0.31	0.29	0.60
Pv-medians D_ discl =1 vs D_ discl =0	0.18	0.59	0.24	

Panel C: Dispersion of target prices (in %)

Median Dispersion (D)	PC Subsample	EM Subsample	All	Pv-medians PC vs. EM
D_ discl =1	0.08	0.18	0.09	0.28
D_ discl =0	0.19	0.29	0.23	0.13
All	0.14	0.25	0.17	0.02
Pv-medians D_ discl =1 vs D_ discl =0	0.02	0.12	0.02	

Table 7. Target price regressions

This table reports results of the following OLS regressions, in which we transform the dependent and independent variables into standardized rank (0,1) variables:

$$INF_{it} = \alpha_0 + \alpha_1 D\_meth_{it} + \alpha_2 N_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 MTB_{it} + \alpha_6 AFE_{it}^{eps} + \alpha_7 Boldness_{it} + \alpha_8 Rec\_pos_{it} + e_{it}$$

INF: Properties of the information contained in target price estimates (AFE and D); AFE_{it+1}: Absolute price forecast error of company i for year t+1 measured as the absolute value of $(PRICE_{12j} - TP_i)$ $/DEF_{it+j}$ where $PRICE_{ii12}$ is price per share of company i at the end of 12-month forecast horizon; TP_i is the consensus target prices for company i; DEF_{it+j} is a deflator measured as the average value of $PRICE_{i12}$ and TP_{it+1}; D: dispersion of the individual target price estimates measured as the variance of individual target prices deflated by DEF_{it+j}; D_meth: Dummy variable that takes a value of 1 if equity method is applied, 0 otherwise; N: Number of analysts issuing target price estimates; SIZE: Natural logarithm of market capitalization; LEV: Leverage ratio measured by debt divided by book value of equity; MTB: Market to book ratio; AFE_{it}^{eps}: Absolute earnings forecast error calculated as (2) for horizon=1 year ; Boldness: absolute value of the ratio of target price to the actual price on the TP issue date less 1*; Rec_pos:* percentage of positive recommendations over the neutral and negative recommendations; *Adj. R2: Adjusted R-squared of the regression; Nobs: Number of available observations; D_discl: dummy variable that takes a value of 1 if disclosure requirement in financial statements is satisfied.*
*(*** Significant at 1%: ** at 5%; *at 10%)*

	All firms		*D_ discl =1*		*D_ discl =0*	
	AFE	**D**	**AFE**	**D**	**AFE**	**D**
Intercept	0.35***	0.84***	0.50***	0.87***	0.26***	0.78***
D_meth	0.02	0.03	0.03	0.02	0.01	0.01
N	-0.31***	0.27**	-0.16	0.22*	-0.34***	0.22
SIZE	0.20**	-0.48***	-0.03	-0.40*	0.34***	-0.32***
LEV	0.08*	0.07	0.03	-0.04	0.04	0.03
MTB	0.02	-0.40***	0.02	-0.42*	0.01	-0.42***
$\boldsymbol{AFE^{eps}}$	0.30***	0.15*	0.18**	0.06	0.41***	0.21**
Boldness	-0.08	0.03	-0.26*	0.16	0.01	-0.01
Recpos	0.05	-0.21***	0.16	-0.23**	-0.01	-0.20**
Adj. R2	0.12	0.51	0.01	0.41	0.15	0.52
Nobs	272	272	96	96	164	164