

# The Impact of Governance on IFRS Restatement Quality

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## Abstract

As prior research mainly focused on the influence of IFRS adoption on accounting quality and its economic effects (Leuz and Verrecchia, 2000; Daske, 2006; Barth et al. 2007; Christensen et al. 2008), this paper examines the impact of corporate governance on the quality of the IFRS restatement process itself. The unique feature of this study is our ability to investigate accounting quality through our focus on three features of the IFRS restatement process: (1) the disclosure quality of the IFRS restatement process; (2) the immediate adoption of an IFRS standard, even though an extended adoption period is allowed; and (3) the earnings management activity by restating financial figures from local GAAP to IFRS. Thereby we hypothesize that in a changing accounting environment, better governed firms will provide a better financial restatement quality. Our results largely confirm this prediction. It turns out that high quality governance firms are more likely to disclose the equity, earnings and cash flow impact of IFRS in detail, are less likely use the extended adoption period of IAS 39 (but only when the effect on equity is negative) and do not engage in earnings management around the time of adoption but instead apply IFRS in a rigorous manner. Interestingly, the composition of the board and the quality of the audit committee in particular determine the quality of IFRS restatements.

Key Words: International Accounting, IFRS Restatements, Corporate Governance, Disclosure, IAS39, Earnings Quality

JEL classifications : G14, G15, G30, M38, K22

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## 1. Introduction

This study investigates the impact of corporate governance on the quality of the IFRS restatement process. The quality of the restatement process is assessed by three of its components: (1) the disclosure quality of the restatement process, (2) the immediate adoption of IAS39, even if an extended adoption period is allowed, and (3) the earnings management activity around the time of IFRS adoption.

The adoption of IFRS was made mandatory by the European Commission from 1 January 2005 onwards. Under IFRS 1 firms are required to restate their previous year's financial figures in accordance with IFRS for reasons of comparability and to allow investors to evaluate performance over time. In practice, this means that financial figures are available using local and IFRS numbers for the year 2004. Furthermore, next to doing the restatement, companies are required to disclose a detailed explanation in the notes of the main adjustments made due to the IFRS transition. Finally, with the introduction of IFRS the EU allowed an extended adoption period for IAS 39, i.e. immediate application in 2004 or postponement of the application until 2005<sup>1</sup>. This change in the accounting environment from local to international standards, with a choice for application of IAS 39, offers us the possibility to evaluate the quality of the restatement process on several distinct aspects: the quality of disclosure, the immediate application or the use of the extended adoption period and the earnings management behaviour in this transition phase.

Prior research mainly focuses on the question whether the introduction of IFRS led to real economic effects, by investigating its market (Leuz and Verrecchia 2000; Daske 2006) as well as its accounting consequences (Barth et al. 2007; Christensen et al. 2008). Barth et al. (2007) find significantly positive effects of IFRS with respect to

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<sup>1</sup> The IAS39 standard deals with the recognition and valuation of financial instruments and turned out to be one of the most debated and contested standards because of its effect on equity value in some cases, especially for banking and insurance companies. Gebhardt et al. (2003) reckon that, contrary to assertions from the industry, hedge accounting adequately reflects the economics of banking activities.

the value relevance, accrual quality and conservatism component of earnings. Building further on this literature, this paper investigates not only whether IFRS results into a better accounting quality but also evaluates the accounting quality of the restatement process itself. This is done by comparing hand-collected local GAAP data with IFRS financial information for a constant sample of 152 listed European manufacturing and service firms from the MSCI Pan Euro Index. The use of hand-collected data in this context enables us to provide an answer to the following questions: (1) Is the restatement process itself used to manipulate earnings? (2) If there is an application choice for a particular standard, do firms apply this standard immediately or not? (3) To what extent do firms disclose information about the restatement process? (4) What is the role of corporate governance in this restatement process? We contribute to IFRS literature by investigating the quality of the restatement process itself and by searching for potential determinants. Furthermore, an appealing feature of our study is the combination of a disclosure element, an early adoption issue of a new standard and an earnings quality component in one setting<sup>2</sup>. Finally, building on previous studies investigating the link between financial statement quality and corporate governance, we focus on the role of governance in an accounting change process for a diverse spectrum of accounting quality proxies.

Our descriptive results show a significant relation between corporate governance quality, disclosure quality of IFRS restatements and the level of earnings management in the restatement phase. In a second step we analyse each of these three components separately. We find significant evidence that governance quality is positively associated with disclosure quality. Next, we show that firms with high quality governance are more likely to adopt IAS39 in a timely manner, only when the impact of the standard on equity is negative. If not so, there is no relation between early adoption choice and governance. Finally, we report findings consistent with the notion that earnings management activity is less prevalent in environments with high

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<sup>2</sup> Horton and Serafeim (2007) notice significant differences between firms with respect to the timing of IFRS disclosures. We do not consider the timing of IFRS restatements. Timing is not relevant in our setting since we investigate the impact of corporate governance on the quality of the restatement process instead of valuation effects.

quality governance. Board independence, board functioning and quality of the audit committee in particular appear to be important single governance indicators in explaining differences in restatement quality across firms. Evidence for our hypothesis is confirmed when we introduce the financial and insurance companies in the sample. These results hold when accounting for possible endogeneity issues. Finally, in order to assess the overall quality of the restatement process we use the benefit-of-the-doubt method (Cherchye et al., 2008) to aggregate the three components in one score. We report an average overall quality of the restatement process of 82.5%.

The remainder of the paper is structured as follows. Section 2 reviews relevant prior literature and builds the hypothesis. Section 3 discusses the sample selection. Section 4 provides variable definitions and Section 5 the descriptive statistics. Section 6 presents regression results. Section 7 provides results on extensions. Section 8 concludes the study.

## **2. Literature and motivation**

Prior research on IFRS mainly focuses on the question whether the introduction of IFRS entails significant capital market (Leuz and Verrecchia, 2000; Daske, 2006) and accounting quality effects (Barth et al., 2007; Christensen et al., 2008). No uniform proof is found that IFRS results into a better accounting quality. Bartov et al. (2005) find evidence that accounting numbers using IFRS are more value relevant than those based on German GAAP. Conversely, Eccher and Healy (2003) find no evidence that IFRS earnings are more value relevant than local GAAP ones, for a sample of Chinese firms owned by foreign investors. Also, Hung and Subramanyam (2007) detect no significant IFRS effect in Germany. The potential reason for the lack of consistent evidence is that not all firms adopt IFRS in a serious and rigorous manner, but rather consider IFRS a label and not as a commitment to provide investors with higher quality financial information (Daske et al., 2007). The finding that earnings quality increases considerably more for voluntary than for mandatory adopters (Christensen et al., 2008) also supports this argument. Finally, serious

adoption and real economic effects are more likely to occur in strong institutional environments (Ball et al., 2003; Burgstahler et al., 2006; Daske et al., 2008).

In assessing earnings quality effects, Barth et al. (2007) compare earnings management, timely loss recognition and value relevance pre and post IFRS using a constant sample of firms. They find that the variability of net income and the variability of net income relative to cash flows increase around the time of IFRS adoption, suggesting an improvement in accounting quality. Building on this study and further contributing to IFRS literature, this paper investigates whether IFRS results into a better accounting quality *around* the time of IFRS adoption, and not *after* the adoption. In other words, we evaluate the quality of the accounting restatement process itself. We do so by comparing local GAAP figures with IFRS figures for a constant sample of large European firms using financial data from one and the same fiscal year. As a consequence, we can produce a clean measure of the level of earnings management when IFRS is applied for the first time. Furthermore, this approach allows us to answer research questions that have not been studied yet in IFRS literature, such as: (1) Do firms use the restatement process itself as a means to manage earnings? (2) If an extended adoption period for a certain standard is allowed, do firms apply this standard early or not? (3) Is this choice opportunistically done? (4) How detailed do firms disclose restatement information? (6) What is the impact of corporate governance on the quality of this restatement process? Next to the feature of investigating the quality of the restatement process itself, our study combines a disclosure issue, an early adoption issue of a new IFRS standard and an earnings management issue in one setting, which is quite unique in our mind<sup>3</sup>.

Specifically, we focus on corporate governance as a potential driver of restatement quality, next to the role of country governance. While the impact of country governance has been documented in literature (e.g. Daske et al., 2008), firm-specific governance has been far less the subject of investigation. However, corporate

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<sup>3</sup> Horton and Serafeim (2007) notice significant differences between firms with respect to the timing of IFRS disclosures. We do not consider the timing of IFRS restatements. Timing is not relevant in our setting since we investigate the impact of corporate governance on the quality of the restatement process instead of valuation effects.

governance mechanisms and structures are potentially important determinants of accounting quality (e.g. Klein, 2002; Larcker et al., 2007). Therefore, in this study we mainly focus on the impact of corporate governance on restatement quality, thereby controlling for country-specific governance measures.

Corporate governance is typically defined as a set of structures that monitor a firm's operations (Shleifer and Vishny, 1998; Larcker et al., 2007) and limits agency problems, originating from the separation of ownership and control within a firm. Agency problems between insiders and outsiders can be limited by providing more transparent information. Prior literature has documented that effective governance mechanisms are positively associated with disclosure quality (e.g. Karamanou and Vafeas, 2005; Marques, 2006) and earnings quality, although results are rather weak in some cases (Larcker et al., 2007). Klein (2002) and Chtourou et al. (2001) find a negative association between earnings management and corporate governance measures such as board independence and functioning of the audit committee. Fan and Wong (2002) report significant negative relations between earnings quality and a firm's degree of ownership concentration. DeFond and Jiambalvo (1991) report that the overstatement of earnings is less likely among firms with audit committees. Evidence on the impact of corporate governance on the early adoption of a new accounting standard is non-existent although previous literature shows that early recognition of a new accounting standard is encouraged when it results into an increase in earnings (Langer and Lev, 1993 and Amir and Ziv, 1997a and 1997b). In sum, we contribute to literature by investigating the impact of corporate governance on accounting quality in a changing accounting environment (i.e. the mandatory adoption of IFRS), thereby considering a broader spectrum of accounting quality proxies. This results in the following hypothesis:

*Hypothesis:* Better firm-specific governance mechanisms and structures result into an IFRS restatement process of a higher quality, i.e. good corporate governance leads to (1) a more detailed disclosure on the impact of IFRS; (2) an immediately application of the standards with an

extended adoption period; and (3) lower incentives to manage earnings around the time of adoption.

### **3. Sample design and data**

The sample we use to investigate our hypothesis contains all companies which are part of the MSCI Pan Euro Index over the period January 1<sup>st</sup> 2005 until June 30<sup>th</sup> 2006<sup>4</sup>. From the initial sample of 299 firms, 89 financial and insurance firms are eliminated due to specific industry characteristics. Furthermore, 39 early IFRS adopters and 15 US GAAP are withdrawn as no IFRS restatement information is available for the year 2004. Finally, 4 firms are eliminated due to lack of IFRS restatement information. This results in a final sample of 152 firms shown in Table 1. The majority of firms belong to the French (71) or the English (60) institutional oriented environment.

To provide information to different stakeholders about the impact of IFRS on accounting numbers, firms have different communication channels. In this study, the quality of the IFRS restatement process is assessed using the financial statements since the latter remains an important public channel for providing information to different stakeholders (Chang et al., 2007). Furthermore, as the information provided in the annual report is audited, this information source guarantees a high level of reliability (Francis and Wang, 2007).

As stated in our hypothesis, we assess the quality of the restatement process by means of three different elements. While electronic databases such as Thomson Datastream could be used to measure the earnings management behaviour around the IFRS restatement as well, information on the disclosure quality and on the immediate application of IAS standards can only be gathered using the hard copy version of the

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<sup>4</sup> The MSCI Pan-Euro Index contains 287 securities with a free float-adjusted market capitalization of € 4,348 billion, selected from 16 European countries.

financial statements<sup>5</sup>. On order to be consistent in the information source used for each of the three components, we collect all information on the restatement process from the hard copy version of the financial statements. Finally, as IFRS became compulsory in 2005 and early appliers are eliminated from the sample, the notes of financial statements from the year 2005 are the main source to evaluate the quality of the restatement process<sup>6</sup>. As only for the year 2004 local and IFRS figures are available reflecting the same economic event, the 2004 data will be used to evaluate the quality of the IFRS restatement process.

To test for corporate governance as a determinant of restatement quality, we consider the corporate data base from Risk Metrics (formerly known as the Deminor database) which contains detailed corporate governance information for the MSCI Pan Euro Index<sup>7</sup>. The rating is based on more than 300 corporate governance criteria and the maximum score is 40. Appendix A provides a detailed overview of the different items included in the corporate governance score.

#### 4. Model development

To answer our research question, we develop a regression model in which corporate governance (CORPGOV) is linked to the different proxies for the quality of the IFRS restatement process (QRIFRS). The general form is the following one:

$$QRIFRS_i = \alpha + \beta_1 CORPGOV_i + \beta_2 ControlVariables_i + \varepsilon_i \quad (1).$$

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<sup>5</sup> Although restated figures are available in Datastream in most cases, they contain a serious amount of error.

<sup>6</sup> For firms not voluntarily adopting IFRS with a fiscal year-end not equal to 31st of December, the pre-adoption year is 2004, the transition year is 2005 and the adoption year is 2006. From now on we refer to the pre-adoption, transition and adoption year as being 2003, 2004 and 2005 for all firms in the sample.

<sup>7</sup> Deminor Ratings have been used in prior studies such as Bauer et al., (2004), Van der Bauwhede and Willekens (2008) and Renders and Gaeremynck (2008).

CORPGOV stands for the company corporate governance rating from Risk Metrics of 2004<sup>8</sup>. Based on previous literature (Klein, 2002; Karamanou and Vafeas, 2005; Larcker et al. 2007) we predict a positive coefficient for the corporate governance variable, as governance has the purpose to decrease asymmetry in information by providing more transparent and accurate information.

Our dependent variable QRIFRS either measures (1) the quality of the disclosure on IFRS restatements (DISCL), (2) the early adoption of IAS39 (EARLYADOP) or (3) the use of the restatement process to manage earnings (DIFFACC). Consequently, we define three separate regression models. In our core analyses, we prefer testing separate regression models above one aggregated model, as control variables differ across our three restatement quality measures. In sensitivity analyses, we use the benefit-of-the-doubt method to aggregate these three quality elements to aggregate them into one overall restatement quality score (also referred to as QRIFRS).

To measure the disclosure quality of the restatement process, we construct a disclosure score based on quantitative information about the IFRS restatement process in the first regression. The disclosure index is based on 5 items relevant for financial statements users: the effect on the (1) net income of IFRS in 2004 (2) the book value of equity at the beginning of 2004 (= book value at the end of 2003), (3) the book value of equity at the end of 2004, (4) the total revenues or sales of 2004 and (5) the operating cash flow of 2004<sup>9</sup>. We choose to focus on net income and equity as these two measures are frequently used for valuation purposes. Moreover, firms were mandated by IFRS 1 to provide information on the restatement of these financial items. Conversely, disclosure on cash flow and sales restatements was to a large extent voluntary. However, in our opinion restatement information on these

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<sup>8</sup> Results prove to be robust for using 2004 or 2005 ratings. This is not surprising, as corporate governance tends to be rather 'sticky' over time. For 10 observations the corporate governance rating of 2005 has to be used as the 2004 rating was not available. Regression results remain qualitatively the same without those 10 observations.

<sup>9</sup> In the disclosure index equity is considered twice as important as the other two items, net income and operating cash flows because previous evidence shows that the restatement to IFRS has the largest impact on equity. In the sensitivity analysis the disclosure index on three items (sales, net income and operating cash flows of 2004) is computed. Results remain the same.

items is potentially important for investors and other stakeholders. Operating cash flow is an important alternative performance measure for net income. The sales figure is also relevant, because it determines the size of a firm's market share. In this respect, our disclosure score consists of mandatory (net income and equity figures) and voluntary disclosure items (cash flow and sales figures).

To receive a '1' for one of those items, a firm has to allocate the differences between the IFRS and the previous local GAAP number to the each specific international standard provoking (part of) this difference. In other words, the mere disclosure of the difference between the two numbers on itself (which is required under IFRS 1) is not sufficient to receive a '1' for that specific item. The disclosure of the restatement information for net income and book value of equity done by the Spanish company Grupo Ferrovial is depicted in Appendix B as a 'best practice' example. We define this score as DISCL.

Based on previous literature, we introduce both country and firm control variables in the disclosure model. Most notably, we construct a composite indicator IPR using 4 institutional variables from LaPorta et al. (1998 and 2006) to control for country-specific differences in the institutional environment (see Appendix C for methodological details on composite indicators and a definition of the single institutional variables capturing investor protection). In this case, we prefer a composite indicator above the use of single indicators because it provides us with a more accurate institutional measure (Cherchye et al., 2008). Among others, it helps us to avoid multicollinearity problems between different institutional variables.

The materiality of the IFRS restatement is the first firm control variable. We predict a positive sign for the absolute value of the impact of IFRS on net income ( $ABS(\Delta NI)$ ) and for book value of equity ( $ABS(\Delta BVE)$ ), as firms experiencing a large impact are expected to disclose more information (Chang et al., 2007). We further control for firm size (LNMV) (Raffournier, 1996; Brown et al., 1999; Holland, 2005), firm age (LNAGE) (Holland, 2005), sales growth (SLSGR), performance (ROA), amount of debt (LEVERAGE), ownership diffusion

(OWNDIFF) and a US GAAP dummy variable (US GAAP). Finally, we introduce industry dummies in the disclosure model to control for industry effects (INDUSTRY). The subsequent regression model testing disclosure looks as follows:

$$DISCL_i = \alpha + \beta_1 CORPGOV_i + \beta_2 IPR_c + \beta_3 ABS(\Delta NI)_i + \beta_4 ABS(\Delta BVE)_i + \beta_5 LNMV_i + \beta_6 LNAGE_i + \beta_7 ROA_i + \beta_8 SLSGR_i + \beta_9 LEVERAGE_i + \beta_{10} OWNDIFF_i + \beta_{11} USGAAP_i + \sum \beta_j INDUSTRY_j + \varepsilon_i \quad (2).$$

The second aspect of IFRS restatement quality under consideration is the choice of early application of IAS39 in 2004. This quality aspect is defined as EARLYADOP. If a firm immediately applies the IAS 39 standard in 2004, the EARLYADOP gets a value of 1. A value of 0 is assigned if the firm prefers the extended adoption period and only applies the standard for the first time in 2005<sup>10</sup>.

In this case, our main variable of interest remains CORPGOV. Further, we introduce a variable that measures the signed impact of IAS39 on equity (IMP(IAS39)). We expect a positive sign because the higher IMP(IAS39), the more likely IAS39 will be applied immediately. Consistent with the previously developed early adoption models (Langer and Lev, 1993; Amir and Ziv, 1997a and 1997b), and the disclosure model, the total IFRS effects on net income and on equity are introduced in the model, together with firm-specific control variables. Subsequently, we test the following regression model:

$$EARLYADOP_i = \alpha + \beta_1 CORPGOV_i + \beta_2 IMP(IAS39)_i + \beta_3 IPR_c + \beta_4 \Delta NI_i + \beta_5 \Delta BVE_i + \beta_6 LNMV_i + \beta_7 LNAGE_i + \beta_8 ROA_i + \beta_9 SLSGR_i + \beta_{10} LEVERAGE_i + \beta_{11} OWNDIFF_i + \beta_{12} USGAAP_i + \varepsilon_i \quad (3).$$

Finally, the third component of the restatement quality reflects whether the restatement process is used to manage earnings. As opposed to Barth et al. (2007) who compare the accruals in the year of adoption using IFRS with accruals in the pre

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<sup>10</sup> Additionally, as a robustness check, we provide firms that experience a negative impact on equity value of IAS39 and early adopting the standard with a '2', as these firms are clearly having an incentive not to adopt the standard early. Results prove to be robust.

adoption year using local standards, we employ hand-collected data from one and the same fiscal year (the transition year 2004). Measuring accruals under IFRS and under local GAAP for 2004 provides us with a cleaner estimate of earnings management behaviour around the time of adoption<sup>11</sup>. Following Leuz et al. (2003), Francis and Wang (2007) and Daske et al. (2007), we consider both the signed and unsigned difference in magnitude of accruals calculated under local GAAP ( $|ACC_{LocalGaap(0)}|/|TA_{LocalGaap(0)}|$ ) and calculated under IFRS ( $|ACC_{IFRS(0)}|/|TA_{IFRS(0)}|$ ) to assess earnings management behaviour<sup>12</sup>. To calculate the signed difference in accrual magnitude, we subtract local GAAP accruals from IFRS accruals. A higher level for this difference is considered as an indication of more earnings management when firms restate. When considering the unsigned difference, we interpret larger difference values as evidence of a more rigorous application of IFRS for the first time. Firms showing practically no difference between their accruals under IFRS and local standards are suspected to use the discretion available under IFRS. We define this third quality measure of the restatement process as DIFFACC (signifying the signed difference) and |DIFFACC| (signifying the unsigned difference).

Two important remarks have to be made with respect to the DIFFACC measures. First, accruals under IFRS are based on net income figures excluding any influence from IAS39 because the early application influences the amount of accruals. Second, accruals are calculated as net income minus net operating cash flows and scaled by the firm's total assets as done in Hribar and Collins (2002).

Similar to our previous models, the composite indicator IPR is introduced as an institutional measure. Control variables are also similar to the disclosure and the early adoption model except for the variable ACC(PREADOP) indicating the level of

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<sup>11</sup> When comparing accruals of different years with each other, the amount of accruals can be different not only because of a change in the accounting standards but also because of economic transactions. By investigating differences in accruals of the same year, the economic base is the same and the difference in accruals can be more cleanly attributed to the change in accounting standards from local GAAP to IFRS.

<sup>12</sup> We choose to scale by total assets from the current year, because these are available under IFRS. Scaling both accrual measures with lagged total assets (under local standards) does not alter results. As a robustness check, we redo all analyses scaling by absolute value of operating cash flows. Again, results remain qualitatively the same.

earnings management in the pre-adoption year. Our third regression model looks as follows:

$$DIFFACC_i = \alpha + \beta_1 CORPGOV_i + \beta_2 IPR_c + \beta_3 ACC(PREADOB)_i + \beta_4 LNMV_i + \beta_5 ROA_i + \beta_6 SLSGR_i + \beta_7 OWNDIFF_i + \beta_8 USGAAP_i + \varepsilon_i \quad (4).$$

In this respect, we acknowledge that the difference between local GAAP and IFRS accruals is also influenced by the difference between the local GAAP and the IFRS accounting regime, and not only by how serious firms apply IFRS. Therefore, in additional tests we use a two-stage regression to deal with this issue. In a first stage  $DIFFACC$  and  $|DIFFACC|$  are regressed on the country-level variable  $DISTANCE$ , measured as the average rank of the number of inconsistencies and absences that exist between the local standards and IFRS, based on a comparison study of big 4 audit firms (GAAP 2000 and 2001; Wulandari and Rahman, 2004). The larger a country's  $DISTANCE$ , the larger we expect the difference to be between local GAAP accruals and IFRS accruals. In the second step, the residual of the first stage is considered as a proxy for the level of earnings management around the time of IFRS adoption. Results prove to be consistent with our main analysis.

To summarize, Table 2 provides a list of all relevant variables and their definition used in the different models.

## 5. Descriptive statistics

Panel A of Table 3 details firm-specific descriptive statistics of the restatement quality indicators, the corporate governance rating and the control variables. Descriptive statistics show the existence of large differences across the sample for all three restatement quality items. While the average firm scores 3.82 on 5 for the  $DISCL$  variable, only 44% immediately applies IAS 39 in 2004. Finally, as expected, the average and median  $DIFFACC$  is negative (resp. -0.0075 and -0.0050), indicating lower accruals under IFRS. In absolute terms, this difference ( $|DIFFACC|$ ) amounts to 1.73% on average. The mean  $CORPGOV$  score equals 25.47, on a maximum of

40. Also, the standard deviation (5.6) and quartile range (11.25) of CORPGOV are quite large indicating a considerable variation in the sample in terms of overall governance quality, despite these being all large and mature firms.

Further, Panel A of Table 3 reveals that  $\Delta NI$  (the signed impact of IFRS adoption on net income) is positive with an average 1.28% of market value.  $ABS(\Delta NI)$  is on average 1.62% of a firm's market value<sup>13</sup>.  $\Delta BVE$  is significantly negative with a value of 1.93%. Its magnitude ( $ABS(\Delta BVE)$ ) is quite large with an average of more than 5% of market value. For a quarter of our sample,  $ABS(\Delta BVE)$  is 7.37% or above, in terms of market value. The median impact of IAS39 on book value of equity ( $IMP(IAS39)$ ) is slightly positive, but not significantly different from zero (0.13% of market value).  $ABSIMP(IAS39)$  reaches an average of 1.4% of market value. As an additional measure, we calculate the impact of IAS39 in 2004 on a firm's equity/debt ratio, as this standard also influences liabilities. Contrary to the average impact on equity, the mean equity/debt impact is negative as the ratio decreases by an average of 0.83% (not reported). Further, the average firm in our sample is 62 years old ( $AGE$ ), has a market value above 2 billion USD ( $MV$ ), a return on assets of 5.67% ( $ROA$ ), a sales growth of almost 9.3% ( $SLSGR$ ) and a leverage ratio of 66.68% ( $LEVERAGE$ ). The average free float is 65.65% ( $OWNDIFF$ ). Only 4% of the companies previously reported under US GAAP.

Panel B of Table 3 provides median values on country level of the restatement quality, governance indicators and restatement magnitudes. We select country type following La Porta et al. (1998) and distinguish between law systems according to their English, French, German or Scandinavian origin.  $DISCL$  is lowest in German countries (2.33 on 5) and highest in the English environment (4.00). Individually, France obtains the highest score (4.39), followed by Ireland (4.33) and the Netherlands (4.18), whereas South-European companies disclose the lowest amount of restatement information. Only 25% of the English law firms apply IAS39 early,

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<sup>13</sup> We prefer to scale all IFRS effects with market value of the firm as this is the only true scale measure of a firm (Easton and Sommers, 2003), instead of measuring an index (e.g. Gordon and Weetman, 2006) which is subject to unwanted scale effects.

while all German firms do so. More interestingly, we discover large differences between countries in terms of DIFFACC. In German countries, accruals are slightly larger under IFRS than local standards resulting in a positive DIFFACC (0.009), while for the UK and Ireland the median difference is negative (-0.013). Regarding French and Scandinavian law countries, the sign of DIFFACC varies across countries but is negative on average (-0.004 in both cases). The unsigned accrual difference is largest for the UK and Ireland once again, indicating that these countries have made the largest restatements.

The following four columns of Panel B depict differences between countries for  $\Delta NI$ ,  $\Delta BVE$ ,  $ABS(\Delta NI)$  and  $ABS(\Delta BVE)$ . Interestingly, in all countries except Belgium, Greece and Portugal, IFRS adoption leads on average to higher earnings. Conversely, IFRS brings along a lower book value of equity in most countries, as  $\Delta BVE$  is on average -0.54%. Portuguese firms experience the largest negative effect (-19.35%). In absolute terms, Portuguese and Norwegian firms exhibit the largest  $ABS(\Delta NI)$  with values of 3.03% and 1.34%, respectively. For most countries,  $\Delta BVE$  is larger than  $\Delta NI$ . Overall, we conclude that the impact of IFRS on earnings and equity is considerable in magnitude and varies significantly across countries. We also report corporate and country governance quality figures in Panel B of Table 3. Governance is of a higher quality in a common law environment than in a code law one. Dutch (24.52), French (21.48) and Scandinavian (23.44) companies also give proof of high CORPGOV values. Swiss (14.81), Portuguese (16.53), Greek (18.34) and German (18.51) firms generally engage in low quality corporate governance mechanisms. Investor protection (IPR) is measured by a composite indicator (see Appendix 3 for details). The UK, France and the Netherlands offer the highest investor protection (100%), while Germany, Belgium and Greece score lowest on IPR (below 70%).

Panel C of Table 3 shows that detailed equity and earnings effects of IFRS are disclosed by most firms, while only 64.5% and 35.5% of the firms disclose the effect on total revenues and operating cash flows, respectively. A third of the sample firms provide details on all five disclosure items (47 out of 152), while 12.5% of the firms

only provide details on two items or less (19 out of 152). Three firms do not provide restatement details at all in their annual report.

Panel D of Table 3 reports how firms differ in their choice to early adopt IAS39, depending on the impact the standard has on their book value of equity (left part) and on their equity/debt ratio (right part). Overall, results indicate that the choice of applying IAS39 early is to a large extent driven by the standard's effect on equity and liabilities. In other words, this result is consistent with the notion of an opportunistic choice. Of all firms for which  $IMP(IAS39)$  is smaller than zero, a majority of 71% delays the adoption. This rate is only 43% when the impact is positive. This difference proves to be highly significant ( $p=0.001$ ). Our results are qualitatively the same when considering the equity/debt ratio ( $p=0.000$ ).

Panel E of Table 3 compares accrual magnitude and its association with cash flows between local and international standards. These metrics have been used in prior studies (e.g. Barth et al., 2007 and Leuz et al., 2003). Recall that we compare data from one and the same fiscal year. Firstly, mean and median accruals are smaller in magnitude under IFRS than under local GAAP (one-sided p-values are 0.038 and 0.027 respectively), providing evidence for the notion that earnings discretion is lower under IFRS. Secondly, the Pearson and rank correlations between signed accruals and cash flows are more negative under local GAAP than under IFRS indicating less smoothing activity; although differences are not significant (p-values are 0.13 and 0.19).

Table 4 shows Pearson and rank correlations between the four restatement quality components, our governance measures and all relevant control variables. Already, these univariate tests provide evidence consistent with our hypothesis, as  $CORPGOV$  correlates positively with  $DISCL$  (0.376) and  $|DIFFACC|$  (0.165). The correlation between  $CORPGOV$  and  $DIFFACC$  is significantly negative, as predicted (-0.314). Finally,  $EARLYADOP$  does not correlate positively with  $CORPGOV$  as hypothesized.

Table 5 provides further univariate support for the relationship between corporate governance and the quality of the IFRS restatement process. In this case, we split the sample into four equally-sized groups depending on the firms' governance ratings. Class 0 contains the quarter of the sample with the worst governance ratings (mean CORPGOV is 17.9), while we classify companies with the highest governance quality in class 3 (mean CORPGOV is 32.5). Results shown in Table 5 confirm our hypothesis, as firms in class 3 provide the most detailed financial restatements (DISCL is 4 or 5 on 5 in 92% of the cases) and exhibit the largest declines in total accruals (median DIFFACC equals -1.61% of total assets). Contrary to our prediction, firms in class 3 adopt IAS39 early in only 26% of the cases, whereas this percentage is 58% for class 0 firms. Most British firms do not adopt the financial standard in a timely manner. For class 0 firms, the median DIFFACC is not significantly different from zero (-0.06% of total assets) and the median |DIFFACC| is lower as compared to better governance firms (0.8%). In classes 1 and 2, the difference is significantly negative (resp. -0.45% and -0.84%), but not of the same magnitude as class 3. Differences between all classes are significant in most cases. These results support the notion that in firms with low quality governance mechanisms managers use the discretion provided under IFRS to manipulate financial statements. Mean figures confirm this result as can be derived from the second part of Table 5.

## **6. Regression results**

Regression results for the disclosure model (model 2) are depicted in Table 6. In the control model (specification 1), the  $R^2$  reaches 47.4%. In the second specification, CORPGOV, our main variable of interest, is added and found to be positively significant ( $p=0.014$ ). We note an increase in adjusted  $R^2$  value of 3.5%. Thereby, we also control for country governance quality (IPR), which also has a significantly positive coefficient ( $p=0.000$ ). As for the other control variables, LNMV ( $p=0.040$ ) and several industry dummies appear to be significant. Different from what we expected, the materiality of the IFRS restatement captured by  $ABS(\Delta NI)$  and

ABS( $\Delta$ BVE) does not influence the quality of the disclosure on the restatement process. It does not come as a surprise that several control variables are insignificant in explaining this disclosure variable. We do not consider all information a firm is disclosing, but only that fraction of the annual report dealing with the IFRS transition process.

In the third specification, a two stage least square model (2-SLS) is used to control for possible endogeneity problems found in previous corporate governance studies (Bhagat and Black, 2002; Durnev and Kim, 2005; Black et al., 2006). In a reduced form equation (5), we choose country-level characteristics (captured by country dummy variables) as instruments, similar to Klapper and love (2004)<sup>14</sup>. Afterwards, in the second stage, CORPGOV is replaced by its predicted value from the first stage represented by equation (5). As a consequence, IPR is left out of the model, because country effects are already introduced as instruments in the first stage. CORPGOV carries, consistent with our expectations, a significantly positive coefficient ( $p=0.002$ ).

The results are robust for adding other variables, such as market to book value (as an alternative performance or growth measure), capital intensity, intangible assets, internationality (measured as the percentage of foreign sales on total sales) and a dummy variable for early adopters. Auditor type is not considered since all sample firms have BIG 4 auditors.

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<sup>14</sup> The reduced form equation from the first stage looks as follows:

$$CORPGOV_i = \alpha + \sum \beta_c COUNTRYDUMMY_c + \varepsilon_i \quad (5).$$

A good instrument is typically strongly correlated with the endogenous variable, but not with the error term of the structural equation. In practice, it is impossible to find a perfect instrument: either the instruments are not exogenous (semi-endogenous instruments) or they have a low correlation with the endogenous variable (weak instruments). We prefer country dummies above alternatives, as they are exogenous and prove to be a strong instrument (as the  $R^2$  is about 0.65 in the first stage). In sensitivity analyses, we employ legal origin (as in Durnev and Kim, 2005) and our composite investor protection indicator IPR as alternative instruments. IPR is a strong instrument but not an exogenous one, while legal origin is an exogenous but weak instrument. As another sensitivity check, we include the exogenous control variables from the second stage (in this case industry dummies and firm age).

Results for the early adoption model are depicted in Table 7. In the control model (first specification), we notice that the signed impact of IAS39 on equity,  $IMP(IAS39)$ , is a significant driver of the early adoption choice ( $p=0.012$ ). This finding is consistent with results found in Panel D of Table 3 and robust for the use of the signed impact of IAS39 on the equity-debt ratio. In the second specification,  $CORPGOV$  has a marginally significant negative coefficient ( $p=0.086$ ). At first sight, this finding looks counterintuitive as better governance firms are *a priori* expected to early adopt the standard. Looking closer, this result is due to the large number of British firms present in our sample and reluctant to apply IAS39 early.

In the third specification,  $IMP(IAS39)$  is dropped and replaced by a dummy variable ( $D\_IMP(IAS39)$ ) that equals 1 if the firm experiences a negative impact on its book value of equity from applying IAS39, and zero if the equity effect is positive. An interaction variable between  $CORPGOV$  and  $D\_IMP(IAS39)$  measures how governance incrementally influences the choice of early adoption for firms having a negative effect. We expect the coefficient on the interaction variable to be positive as we hypothesize that high governance quality firms will be more willing to apply the standard early, even if these firms have an incentive not to, as opposed to firms with worse governance practices. In addition, the unsigned IAS39 impact is included as a control variable in specifications 3 and 4 ( $ABSIMP(IAS39)$ ).

Interestingly, in the third specification the dummy intercept  $D\_IMP(IAS39)$  has the expected negative sign ( $p=0.001$ ). We detect a significantly positive coefficient on the interaction variable, indicating a positive *incremental* effect of corporate governance on the chance of early adoption, for firms having a negative impact ( $p=0.008$ ). The *overall* impact of corporate governance on the chance of early application for firms with a negative effect is positive, as the sum of  $\beta_1$  and  $\beta_3$  is +0.43 (-0.162+0.205). For firms that have a positive IAS39 effect, corporate governance appears to play a negative role, as  $\beta_1$  is negative ( $p=0.006$ ). The negative coefficient on  $ABS(\Delta BVE)$  shows that the larger the restatement due to other standards is, the more reluctant firms are to apply IAS39 in 2004 ( $p=0.021$ ). In the fourth specification, we estimate a 2-SLS model. Consistent with previous results

and predictions, the impact dummy remains negative ( $p=0.002$ ) and the interaction variable continues to show a significantly positive coefficient ( $p=0.013$ ). Overall, regression results shown in Table 7 illustrate the positive impact of the quality of corporate governance in the choice to early apply IAS39 when its impact on equity value is negative.

Finally, in Table 8 the results for the earnings management model (4) are shown. In Panel A (Panel B), we report regression results with  $DIFFACC$  ( $|DIFFACC|$ ) as dependent variable. In each test we drop extreme values of  $DIFFACC$  (1% on each side), because they may have unwanted effects on estimated coefficients. Results do not change when leaving these extremes in the sample. Recall that we interpret higher (lower) values of  $DIFFACC$  ( $|DIFFACC|$ ) as more earnings management and a less accurate or rigorous first time application of IFRS.

In the first specification of Panel A, the coefficient on  $IPR$  is significantly negative ( $p=0.010$ ). Control variables are not significant in most cases. In the second specification the coefficient on  $CORPGOV$  is negative as predicted ( $p=0.002$ ). This result confirms the notion that better corporate governance leads to a more rigorous application of IFRS. The adjusted  $R^2$  value rises from 6.4% to 12.2% when including  $CORPGOV$  in the model. Entering the predicted governance score from the reduced equation (2-SLS), confirms the result as the coefficient on  $CORPGOV$  carries a negative and highly significant coefficient ( $p=0.000$ ).

The equivalent analyses shown in Panel B convey similar results.  $CORPGOV$  carries as predicted a significantly positive sign, even when controlling for country-specific governance quality ( $p=0.035$ ). This result confirms findings from Table 5 and holds when executing a 2-SLS regression ( $p=0.001$ ). Overall, we conclude that results in Table 8 support the notion that better corporate governance mechanisms lead to a more rigorous application of IFRS, providing managers with less incentives to manipulate earnings during the restatement. However, we acknowledge that these regressions are not without its shortcomings. Foremost, we are unable to refer to any prior literature, and therefore we interpret regression results of Table 8 with a degree

of caution<sup>15</sup>. Further, the use of accrual measures for earnings quality has always been up for debate in accounting literature (e.g. Guay et al., 1996).

## 7. Additional analyses

A drawback of previous analyses is each of the three elements of financial restatement quality is estimated separately. Therefore, it is difficult to obtain an overall measure of a firm's restatement quality. In this first of four additional analyses, we test a model that explains variation in overall restatement quality, assessed by means of composite indicators. An appealing feature of the use of composite indicators is that restatement quality is measured by means of one single figure capturing information from multiple relevant characteristics. We apply the benefit-of-the-doubt methodology to construct the indicators, using flexible weighting (see also Cherchye et al, 2008). In Appendix C we provide details on this procedure.

The outcome of the analysis is  $QRIFRS_i$ , a variable between 0 and 1, where higher values signify a better overall restatement quality. The average firm attains an overall restatement quality of 82.5%, indicating that the average firm is 17.5% removed from the best restatement quality firms. The median overall restatement quality is 83%, the minimum 43% and the maximum 100%. We test a tobit specification as the composite indicator varies between 0 and 1. We execute the regression with  $CORPGOV$  as our main variable of interest, in addition to the common control variables used in the three previous analyses. In the control model shown in Table 9,  $IPR$  ( $p=0.002$ ),  $LNMV$  ( $p=0.003$ ),  $USGAAP$  ( $p=0.099$ ) and  $OWNDIFF$  ( $p=0.095$ ) are significant variables, all carrying the predicted signs. The second regression and the 2-SLS regression confirm our hypothesis:  $CORPGOV$  carries a significantly

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<sup>15</sup> In explaining differences in abnormal accruals, Geiger and North (2006) control for changes in earnings, cash flows, and other firm control variables. All studies investigating change in accruals measure these changes over two years. However, in our setting, we measure differences in accruals from the same fiscal year.

positive coefficient ( $p=0.020$  and  $p=0.009$ ). Also, the introduction of CORPGOV leads to an increase in  $R^2$  of almost 3%.

All of the previous analyses were done with nonfinancial firms, as it is difficult to measure earnings quality in a comparable way for financial, insurance and nonfinancial companies. However, as financials represent 28% of the initial sample, the disclosure and the early adoption model are rerun for the total sample of 223 firms (18 from the 89 financial and insurance firms disappear due to the lack of restatement data). We even expect more significant results as financial firms usually experience a larger impact from IAS39. Control variables differ somewhat because certain variables are not comparable between financial and nonfinancial firms. We replace SLSGR and ROA by respectively market-to-book value (MTBV) and a loss dummy (LOSS). LEVERAGE is dropped<sup>16</sup>.

Panel A of Table 10 reports the results of the disclosure model for the total sample. It should be noted that in this case DISCL is a firm-specific disclosure score on 4 instead of 5. Disclosure of the IFRS impact on total revenues is not considered in this case because these are less relevant for financial firms and less comparable with nonfinancial firms' sales numbers. As expected, the significance of the CORPGOV further increases with or without control for endogeneity. Panel B of Table 10 shows the EARLYADOP results for the full sample. Again, we find evidence stroking with our research hypothesis. For firms possessing higher quality governance mechanisms, disclosure on IFRS restatements appears significantly higher and the early adoption of IAS39 is more likely, when the impact on equity is negative. Moreover, results prove to be stronger than those previously reported in Tables 6 and 7. Finally, results are confirmed by the two stage approach accounting for a possible endogeneity problem.

As a third extension, we investigate how the four categories of corporate governance quality each explain variation in restatement quality. The governance ratings contain

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<sup>16</sup> Leaving leverage and return on assets in the equation however, does not change the results.

criteria from 4 categories of governance mechanisms: (1) shareholders' rights and duties, (2) range of takeover defences, (3) board structure and functioning and (4) disclosure on corporate governance (for details see Appendix A). *A priori*, we predict a significant impact from the shareholders rights' rating and from the board structure and functioning rating (Chtourou et al., 2000 and Bhagat and Black, 2002). Furthermore, we predict board independence and the quality and functioning of the audit committee to be the most important single drivers of these two corporate governance indicators (Klein et al., 2002; Dechow et al., 1996; DeFond and Jiambalvo, 1991)<sup>17</sup>.

Our results (not shown in tables) convey that in the second stage, in which the preceding first stage is still equal to equation (5), board functioning is highly significant in explaining the level of DISCL. In determining EARLYADOP, board characteristics turn out to be the most explicative variable of all four ratings, as its interaction coefficient with D\_IMP(IAS39) is positive and significant in the second stage. Further, investigating specific governance indicators reveals that the proportion of independent directors has the highest impact on DISCL and DIFFACC. In comparison with board structure indicators, board functioning measures are less significant in explaining DISCL, but highly significant in determining EARLYADOP. The separation of CEO and chairman of the board does not appear to be significant. Consistent with our predictions, we find a significantly positive (respectively negative) association between the quality of the audit committee and DISCL (respectively DIFFACC). The size, workings and composition (i.e. independence) of the audit committee all turn out to be the most relevant single corporate governance determinants of IFRS restatement quality.

In a final extension, we investigate the disclosure of IAS39 effects for the 85 late adopters. These firms are required to report the impact of the financial standard on their equity value at the beginning of 2005. As it turns out, these firms disclose this information in a varying degree of accuracy, once again. We investigate the

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<sup>17</sup> We are restricted to use 2005 data for these specific governance indicators, as detailed governance data of 2004 are not available.

disclosure quality of this specific item and to which extent governance plays a role in this particular disclosure process. We make a distinction between four disclosure levels of IAS39 effects. Firms reporting the impact on each balance sheet item and making the impact immediately visible on their key financial statements (i.e. on the balance sheet, not in the notes of the 2005 annual report) represent the highest disclosure class. Firms reporting the impact of IAS39 only on book value of equity, but disclosing the impact on the balance sheet construct the second class. Firms reporting on IAS39 effects only in their notes are placed in the third class. The last class contains firms that report nothing about the impact of the financial standard. The number of firms in each class is 14, 42, 23 and 6, going from the highest to the lowest disclosure group. Consistent with predictions, our results (not shown in tables) convey that governance quality plays a significant role in determining disclosure quality on the impact of IAS39.

## **8. Conclusion**

This study documents on the properties and determinants of the quality of the IFRS restatement process. While previous literature mainly focused on the accounting quality and economic consequences of the IFRS, this paper studies the quality of the IFRS restatement process itself. This process provides us with a unique setting to further investigate IFRS adoption since two sets of financial statements under local GAAP and IFRS are available for one and the same fiscal year. Around the adoption timing, firms have to make choices about the level of disclosure on the restatement process, the early adoption of IAS39 or not, and the extent to which they use the restatement process as an opportunity to manage earnings. In particular, we investigate to what extent corporate governance influences the outcome of the restatement process.

Using a hand-collected dataset of large listed European firms, our descriptive analyses show that disclosure quality of the restatement process is quite high, the choice to apply IAS39 early or extendedly is done opportunistically and there is a significant amount of earnings management around the time of the adoption.

Regression results further confirm our hypothesis that well governed firms (i) disclose more information on restatement process, (ii) choose to adopt IAS39 early, but only when experiencing a negative impact from this standard, and (iii) engage less in earnings management around the time of adoption and apply IFRS more seriously. Furthermore, results hold when financial companies are added to the sample. Finally, board functioning, board independence and quality of the audit committee turn out to be significant drivers of the quality of the restatement process.

Our results are potentially interesting for policy makers. If new IFRS standards are introduced leaving firms a choice to apply them or not, standard setters may expect firm to choose opportunistically, especially those lacking governance quality. Our study also shows that corporate governance can fulfil the role of an enforcement mechanism in a reporting change process.

We acknowledge that this study is subject to a number of caveats. First, as we do not investigate economic consequences of IFRS restatements, we are constrained in our conclusions about the accounting quality effects of IFRS. Another limitation is the external validity of our findings, as only large listed companies are included in the sample. However, if the results hold for large companies, which are more likely to install an optimal level of governance, it can be argued that governance will have an impact on the quality of the restatement process in smaller companies as well.

## References

- Amir E. and A. Ziv (1997a) "Economic consequence of alternative adoption rules for new accounting standards" *Contemporary Accounting Research*, Vol 14, pp. 543-68.
- Amir E. and A. Ziv (1997b) "Recognition, disclosure or Delay: Timing the adoption of SFAS NR 106", *Journal of Accounting Research*, Vol. 35, pp. 61-81.
- Archambault, J.J., and Archambault, M.E., (2003) "A multinational test of determinants of corporate disclosure", *The International Journal of Accounting*, 38, 173-194.
- Ashbaugh, H., and M. Pincus (2001), "Domestic Accounting Standards, International Accounting Standards, and the Predictability of Earnings", *Journal of Accounting Research* 39, 417-434.
- Ball R., S.P. Kothari and A. Robin (2000), "The Effect of International Factors on Properties of Accounting Earnings", *Journal of Accounting and Economics* 29, 1-52.
- Ball, R., Sadka, G. and Robin, A. (2006) "Is Financial Reporting Shaped by Equity Markets or by Debt Markets? An International Study of Timeliness and Conservatism", Working Paper.
- Barth, M.E., W.R. Landsman and M.H. Lang (2007), "International Accounting Standards and Accounting Quality", Working Paper, Stanford University and University of North Carolina.
- Bartov, E., S.R. Goldberg, and M. Kim (2005) "Comparative value relevance among German, U.S., and International Accounting Standards: A German stock market perspective", *Journal of Accounting, Auditing and Finance* 20(2): 95-119.
- Bauer, R., Günster, N., Otten, R. (2004) "Empirical evidence on corporate governance in Europe: The effect on stock returns, firm value, and performance", *Journal of Asset Management* 5, 91-104.
- Bhagat, S. and B. Black (2002) "The non-correlation between board independence and long-term firm performance", *Journal of Corporate Law* 27, 231-272.
- Burgstahler, D.C., L. Hail, and C. Leuz (2006), "The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms", *The Accounting Review* 81, 983-1017.
- Cherchye, L., A. Gaeremynck and A. Verriest (2008), "Institutional Characteristics and Firm Profitability", Working paper, Katholieke Universiteit Leuven.

- Christensen, Hans Bonde Lee, Edward and Walker M. (2007), "Do IFRS/UK-GAAP Reconciliations Convey New Information?" *International Journal of Accounting*
- Chtourou, M., Bedard, J. and Courteau, L. (2001), "Corporate Governance and Earnings Management", working paper.
- Daske, H. (2006) "Economic Benefits of Adopting IFRS or US-GAAP – Have the Expected Costs of Equity Capital really decreased?" *Journal of Business Finance & Accounting* 33, 329–373.
- Daske, H., Hail, L., Leuz, C. and Verdi, R. "Adopting a Label: Heterogeneity in the Economic Consequences of IFRS Adoptions" Working paper.
- Daske, H., Hail, L., Leuz, C. and Verdi, R. "Adopting a Label: Heterogeneity in the Economic Consequences of IFRS Adoptions" Working paper.
- Dechow, P., and I. Dichev. 2002. The quality of accruals and earnings: The role of accrual estimation error. *The Accounting Review* 77: 35-59.
- DeFond, and C. W. Park. 2001. The reversal of abnormal accruals and the market valuation of earnings surprises, *The Accounting Review* 76 (July): 375-404.
- Diamond, D. and Verrecchia, R., 1991, Disclosure, Liquidity and the cost of capital, *Journal of Finance* 46, 1325-1360.
- Fan, Joseph P. H., and T. J. Wong. 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics* 33 (August): 401–26.
- Francis J.R., and D. Wang. 2007. The joint effect of investor protection and big 4 audits on earnings quality around the world. *Contemporary Accounting Research* (forthcoming).
- GAAP 2000: A survey of national Accounting rules in 53 countries. Arthur Andersen, BDO, Deloitte Touche Tohmatsu, Ernst and Young International, Grant Thornton, KPMG, and PricewaterhouseCoopers; editor: Nobes, C.W.
- GAAP 2001: A survey of national Accounting rules in 53 countries. Arthur Andersen, BDO, Deloitte Touche Tohmatsu, Ernst and Young International, Grant Thornton, KPMG, and PricewaterhouseCoopers; editor: Nobes, C.W.
- Geiger, M.A., and D.S. North (2006). Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review* 81.
- Gompers, P., Ishii, J., Metrick, A., 2001. Corporate governance and equity prices. *Quarterly Journal of Economics* 116, 107-155.

Hail, L. and C. Leuz (2006). International Differences in Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter? *Journal of Accounting Research* 44, 485-531.

Healy, P, and Palepu, K (2001). "Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature", *Journal of Accounting and Economics* 31, 405-440.

Horton, Joanne and Serafeim, George, "Market Reaction & Valuation of IFRS Reconciliation Adjustments: First Evidence from the UK", Working Paper.

Hribar, P., and D.C. Nichols. "The use of unsigned earnings quality measures in tests of earnings management." Working Paper. Cornell University, 2006.

Hung, M. (2001). Accounting Standards and Value Relevance of Financial Statements: an International Analysis. *Journal of Accounting and Economics*, 30(3), pp. 401-420.

Hung, M., and K.R. Subramanyam, 2007, Financial Statement Effects of Adopting International Accounting Standards: The Case of Germany, *Review of Accounting Studies*, forthcoming.

Jaggi B. and P. Low (2000). Impact of Culture, Market Forces, and Legal System on Financial Disclosures. *The International Journal of Accounting*, 35(4), pp. 495-519.

Jensen, M.C. and Meckling, W.H. (1976), 'Theory of the firm; managerial behavior, agency costs and ownership structure', *Journal of Financial Economics*, 4(3), pp. 305-360

Karamanou, I. and N. Vafeas (2005) 'The association between corporate boards, audit committees and management earnings forecasts: an empirical analysis', *Journal of Accounting Research*, Vol. 43, N. 3, pp. 453-486.

Klapper, L., Love, I., 2004. Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance* 10, 703-728.

Klein, A. (2002) 'Audit committee, board of director characteristics and earnings managements', *Journal of Accounting and Economics*, Vol. 33, pp. 375-400.

Langer, R. and B. Lev (1993), 'The FASB's Policy of Extended Adoption for New Standards: An Examination of FAS Nr 87,' *The Accounting Review*, Vol. 68, pp. 515-33.

Larcker, D., Richardson, S., Tuna, I., 2006. How important is corporate governance? Working Paper, University of Pennsylvania.

- La Porta, R., F. Lopez-De-Silanes, A. Shleifer and R. Vishny (1997). Legal Determinants of External Finance. *Journal of Finance*, 52, 1131-1150.
- La Porta, R., F. Lopez-De-Silanes, A. Shleifer and R. Vishny (1998). Law and Finance. *Journal of Political Economy*, 106(6), 1113-1154.
- La Porta, R., F. Lopez-de-Silanes, A Shleifer, AND R. Vishny. (2000) “Investor protection and corporate governance.” *Journal of Financial Economics* 58 (October/November 2000): 3-27.
- La Porta, R., F. Lopez-de-Silanes, AND A Shleifer. “What works in securities laws?” *Journal of Finance* 61 (February 2006): 1-32.
- Lambert, R.A., C. Leuz, and R.E. Verrecchia, 2007b, Information Asymmetry, Information Precision, and the Cost of Capital, Working paper, University of Pennsylvania and University of Chicago.
- Leuz, C. (2003). IAS versus US GAAP, Information Asymmetry-Based Evidence from Germany’s New Market. *Journal of Accounting Research*, Vol. 41, No. 3 (June), pp. 445-472.
- Leuz, C., D. Nanda and P.D. Wysocki (2003). Earnings Management and Investor Protection: An International Comparison. *Journal of Financial Economics*, Vol. 69, pp. 505–527.
- Leuz, C., and R.E. Verrecchia, 2000, The Economic Consequences of Increased Disclosure, *Journal of Accounting Research* 38, 91–124.
- Marques, A. (2006) ‘SEC interventions and the frequency and usefulness of non-GAAP financial measures’, *Review of Accounting Studies*, forthcoming.
- Renders, A. and A. Gaeremynck (2008), A Cross-country Study of the Impact of Corporate Governance on Company Performance, Working Paper.
- Shleifer, A., Vishny, R., 1997. A survey of corporate governance. *Journal of Finance* 52, 737-783.
- Vander Bauwhede H and M. Willekens (2008). Disclosure on corporate governance in the European Union, *Corporate Governance*.
- Van Tendeloo, B., and A. Vanstraelen, 2005, Earnings management under German GAAP versus IFRS, *European Accounting Review* 14, 155–180.
- Weetman, P. and P. Gordon. 2006. Communicating significant change in accounting measurement: the transition to IFRS in the UK. Working paper.

**Table 1: Sample Outline**

Country Type	Country	No Observations
English	Ireland	3
	UK	57
French	Belgium	1
	France	36
	Greece	1
	Italy	8
	Netherlands	11
	Portugal	1
	Spain	13
German	Germany	5
	Switzerland	1
Scandinavian	Denmark	3
	Finland	2
	Norway	2
	Sweden	8
Total		152

**Table 2: Variable Definitions**

<i>Dependent var.</i>	<i>Definition</i>
DISCL	= Disclosure measure equalling the number of restatement items from a list of four (net income of transition year, book value at the end of pre-adoption year, book value at end of transition year and operating cash flow of transition year) of which detailed IFRS restatement information is provided; maximum score is 4. An example is provided in Appendix B.
EARLYADOP	= Dummy variable taking the value of 1 for firms early adopting IAS 39.
DIFFACC	= $ \text{ACC}_{\text{IFRS}(0)} /  \text{TA}_{\text{IFRS}(0)}  -  \text{ACC}_{\text{LG}(0)} /  \text{TA}_{\text{LG}(0)} $ , with $\text{ACC}_{\text{IFRS}(0)}$ calculated as restated transition year net income ( $\text{NI}_{\text{IFRS}(0)}$ ), before IAS 39, minus restated net cash flow from operating activities ( $\text{CFO}_{\text{IFRS}(0)}$ ).
DIFFACC	= Absolute value of DIFFACC
<i>Independent var.</i>	
CORPGOV	= The corporate governance rating from Deminor on firm level, based on a grid of 300 criteria; maximum score attainable is 40; see Appendix A.
IPR	= Composite indicator measuring investor protection on country level. For measurement of the composite indicators, see Appendix C for details.
$\Delta\text{NI}$	= Net income of the transition year under IFRS minus net income under local GAAP, scaled by market value.
$\Delta\text{BVE}$	= Book value of equity of the transition year under IFRS minus book value of equity under local GAAP, scaled by market value.
$\text{ABS}(\Delta\text{NI})$	= Absolute value of $\Delta\text{NI}$ .
$\text{ABS}(\Delta\text{BVE})$	= Absolute value of $\Delta\text{BVE}$ .
$\text{IMP}(\text{IAS}39)$	= The effect of IAS 39 on book value of equity in the transition year, scaled by market value.
$\text{D\_IMP}(\text{IAS}39)$	= Dummy variable equal to 1 if firm has negative effect of IAS39 on book value of equity.
$\text{ABSIMP}(\text{IAS}39)$	= Absolute value of $\text{IMP}(\text{IAS}39)$ .
$\text{LN}(\text{MV})$	= $\text{Ln}(\text{market value of equity at end of the transition year in thousands of USD})$
$\text{LNAGE}$	= $\text{Ln}(\text{transition year} - \text{year of foundation or incorporation})^{18}$
ROA	= Net income on total assets <sup>19</sup>
SLSGR	= Average growth in sales over last 5 years prior to adoption year
LEVERAGE	= $1 - (\text{book value of equity (local GAAP)} / \text{total assets})$
OWNDIFF	= Percentage of shares not closely held by directors or big shareholders
US GAAP	= 1 if company reported previously under US GAAP
INDUSTRYD	= Set of industry dummy variables based on two-digit SIC codes

<sup>18</sup> For more than half of the firms, the foundation year is available. If the date is missing, we use the date of incorporation. If neither of these two are available, we take the year the firm was available in Datastream.

<sup>19</sup> Net income, book value of equity and total assets, required to calculate ROA and LEVERAGE, are local GAAP figures for the transition year.

**Table 3: Descriptive Statistics**

Panel A shows descriptive statistics on all test and control variables, defined in Table 2. Panel B lists descriptive data of the four restatement quality variables (DISCL, EARLYADOP, DIFFACC and |DIFFACC|) and two governance indicators (CORPGOV and IPR) per country. For DISCL and EARLYADOP, the mean figures are depicted. For the accrual difference measures and the restatement variables of net income and equity, the median figure is shown instead of the mean to avoid the influence of outliers. Panel C provides data on the disclosure quality per item investigated, together with the number of firms per disclosure score. Panel D shows the percentage firms applying IAS 39 early, depending on the impact firms experience on their equity value (BVE) and their equity/debt ratio and significance levels of the difference. Panel E depicts accrual properties of local GAAP earnings and IFRS earnings of the transition year.  $|ACC_{(0)}|/TA_{(0)}$  is the absolute level of accruals scaled by total assets. Accruals are measured by subtracting operating cash flows from net earnings. Lower values of  $|ACC_{(0)}|/TA_{(0)}$  signify lower earnings discretion. Both mean and median values are shown, together with significance levels of the difference.  $\rho(ACC_{(0)},CFO_{(0)})$  is the correlation between signed accruals and operating cash flows, both scaled by current year total assets. Larger negative values of  $\rho(ACC_{(0)},CFO_{(0)})$  signify more earnings smoothing. Both ordinary and rank correlations are measured, together with the significance of the difference.

## Panel A:

	N	Mean	Median	MIN	MAX	Q1	Q3	STDEV
DISCL	152	3,82	4,00	0,00	5,00	3,00	5,00	1,14
EARLYADOP	152	0,44	0,00	0,00	1,00	0,00	1,00	0,50
DIFFACC	152	-0,0075	-0,0050	-0,1085	0,1877	-0,0164	0,0021	0,0280
DIFFACC	152	0,0173	0,0105	0,0001	0,1877	0,0039	0,0216	0,0231
CORPGOV	152	25,47	24,99	12,99	35,96	20,50	31,75	5,60
$\Delta$ NI	152	0,0128	0,0069	-0,0565	0,1534	0,0004	0,0195	0,026
$\Delta$ BVE	152	-0,0193	-0,0043	-0,3891	0,1722	-0,0485	0,0225	0,080
ABS( $\Delta$ NI)	152	0,0162	0,0088	0,0000	0,1534	0,0029	0,0206	0,024
ABS( $\Delta$ BVE)	152	0,0532	0,0331	0,0001	0,3891	0,0127	0,0737	0,063
IMP(IAS39)	152	0,0013	0,0003	-0,1508	0,1299	-0,0067	0,0065	0,026
ABSIMP(IAS39)	152	0,0140	0,0066	0,0000	0,1508	0,0015	0,0159	0,022
MV in '000\$	152	24064060	12013065	1432864	209475900	7949500	23003870	33853667
AGE in years	152	62	55	1	261	17	102	47
ROA	152	0,0567	0,0459	-0,1172	0,3538	0,0278	0,0814	0,0596
SLSGR	152	9,2886	7,3500	-23,9000	98,0700	2,3050	13,8400	13,6726
LEVERAGE	152	0,6668	0,6854	0,2173	1,2332	0,5605	0,7864	0,1648
OWNDIFF	152	65,65	64,50	6,00	100,00	48,00	86,00	22,53
US GAAP	152	0,04	0,00	0,00	1,00	0,00	0,00	0,20

Panel B:

COUNTRY	N	DISCL	EARLYADOP	DIFFACC	DIFFACC	ΔNI	ΔBVE	ABS(ΔNI)	ABS(ΔBVE)	CORPGOV	IPR
		<i>mean</i>	<i>mean</i>	<i>median</i>	<i>country stat.</i>						
<i>ENGLISH</i>	60	4,00	0,25	-0,0134	0,0152	0,0095	-0,0073	0,0114	0,0348	32,07	100,00%
IRELAND	3	4,33	0,33	-0,0042	0,0151	0,0029	-0,0263	0,0029	0,0263	24,85	80,72%
UK	57	3,98	0,25	-0,0149	0,0159	0,0096	-0,0030	0,0131	0,0353	32,14	100,00%
<i>FRENCH</i>	71	3,94	0,58	-0,0041	0,0125	0,0077	-0,0164	0,0088	0,0344	21,31	100,00%
BELGIUM	1	2,00	1,00	0,0085	0,0085	-0,0063	-0,0595	0,0063	0,0595	18,72	59,16%
FRANCE	36	4,39	0,61	-0,0044	0,0095	0,0108	-0,0195	0,0125	0,0449	21,48	100,00%
GREECE	1	3,00	1,00	0,0068	0,0068	-0,0085	0,0240	0,0085	0,0240	18,52	62,62%
ITALY	8	3,88	0,50	0,0024	0,0075	0,0030	0,0130	0,0056	0,0359	20,55	80,72%
NETHERLANDS	11	4,18	0,27	-0,0085	0,0085	0,0091	-0,0154	0,0091	0,0248	24,52	100,00%
PORTUGAL	1	4,00	1,00	-0,0140	0,0140	0,0116	-0,0959	0,0116	0,0959	16,51	92,20%
SPAIN	13	2,77	0,69	-0,0031	0,0031	0,0011	-0,0094	0,0043	0,0336	19,98	85,30%
<i>GERMAN</i>	16	2,33	1,00	0,0092	0,0124	0,0040	0,0098	0,0082	0,0373	18,29	65,06%
GERMANY	5	2,80	1,00	0,0049	0,0049	0,0022	0,0050	0,0042	0,0294	19,37	50,60%
SWITZERLAND	1	0,00	1,00	0,0134	0,0134	0,0110	0,0156	0,0110	0,0156	16,11	79,52%
<i>SCANDINAVIAN</i>	15	3,07	0,33	-0,0037	0,0103	0,0054	0,0109	0,0054	0,0117	23,44	71,42%
DENMARK	3	2,33	0,33	-0,0002	0,0129	0,0210	-0,0075	0,0210	0,0639	17,50	77,05%
FINLAND	2	3,50	1,00	-0,0046	0,0046	0,0040	0,0158	0,0040	0,0158	23,06	85,30%
NORWAY	2	3,00	0,00	0,0003	0,0093	0,0134	0,0784	0,0134	0,0784	21,96	80,00%
SWEDEN	8	3,25	0,25	-0,0049	0,0078	0,0048	0,0095	0,0048	0,0095	24,37	71,42%
MEAN	10	3,20	0,60	-0,0018	0,0106	0,0061	-0,0041	0,0087	0,0374	21,83	81,11%
MEDIAN	3	3,25	0,58	-0,0037	0,0095	0,0054	-0,0030	0,0085	0,0344	21,31	80,72%
MIN	1	0,00	0,00	-0,0149	0,0031	-0,0085	-0,0959	0,0029	0,0095	16,11	50,60%
MAX	57	4,39	1,00	0,0134	0,0252	0,0210	0,0784	0,0210	0,0959	32,14	100,00%

Panel C:

Proportion of Firms providing Disclosure Details			
Restatement Item		DISCL	No Obs
		0	3
1. Equity Value 2003	92,11%	1	3
2. Equity Value 2004	92,11%	2	13
3. Net Income 2004	84,21%	3	28
4. Total Revenues 2004	64,47%	4	58
5. Operating Cash Flow 2004	35,53%	5	47
		Total	152

Panel D:

	Neg Effect BVE	<i>p-value</i>	Pos Effect BVE	Neg Eff Equity/Debt	<i>p-value</i>	Pos Eff Equity/Debt
EARLY ADOP	22 (29%)	<i>0,001</i>	45 (57%)	22 (26%)	<i>0,000</i>	26 (63%)
LATE ADOP	51 (71%)		34 (43%)	64 (74%)		15 (27%)
TOTAL	73 (100%)		79 (100%)	86 (100%)		41 (100%)

Panel E:

Accrual Properties under IFRS and Local GAAP				
	No Obs	Local GAAP	<i>p-value (1-sided)</i>	IFRS
		$ ACC_{(0)} / TA_{(0)} $		$ ACC_{(0)} / TA_{(0)} $
Median	152	0,056	<i>0,027</i>	0,048
Mean	148	0,067	<i>0,038</i>	0,059
		$\rho(ACC_{(0)}, CFO_{(0)})$		$\rho(ACC_{(0)}, CFO_{(0)})$
Rank Corr	152	-0,589	<i>0,130</i>	-0,505
Pearson Corr	149	-0,596	<i>0,190</i>	-0,535

**Table 4: Correlations**

Ordinary (Pearson) correlations are shown in the upper right triangle with corresponding significance levels. Rank (Spearman) correlations are shown in the lower left triangle of the table. All variables are defined in Table 2.

	DISCL	EARLY ADOP	DIFF ACC	DIFF ACC	CORP GOV	IPR	ABS ( $\Delta$ NI)	ABS ( $\Delta$ BVE)	LN MV	LN AGE	OWN DIFF	SLSGR	LEVER AGE	ROA	USGAAP
DISCL	1,000	-0,078	-0,018	0,043	0,376***	0,40***	0,016	0,003	0,147*	0,021	0,131	-0,078	0,187**	-0,091	-0,056
EARLYADOP	-0,025	1,000	0,046	0,003	-0,223***	-0,23***	0,026	-0,148**	0,029	0,006	0,107	0,114	0,070	-0,093	0,160**
DIFFACC	0,008	0,113	1,000	0,034	-0,316***	-0,169**	-0,152**	-0,029	-0,119	0,028	-0,027	-0,046	0,016	-0,24***	0,068
DIFFACC	-0,049	-0,010	-0,463***	1,000	0,165**	0,081	0,294***	0,087	0,194**	-0,145*	0,119	-0,053	0,050	-0,147*	-0,091
CORPGOV	0,359***	-0,22***	-0,339***	0,241***	1,000	0,53***	0,125	-0,040	0,043	-0,158**	0,135*	0,031	-0,034	0,090	-0,147*
IPR	0,418***	-0,182**	-0,278***	0,148*	0,495***	1,000	0,163**	-0,030	0,088	0,006	0,087	0,019	0,021	0,007	-0,329***
ABS( $\Delta$ NI)	-0,003	-0,090	-0,166**	0,297***	0,005	0,193**	1,000	0,329***	0,100	-0,003	0,023	-0,032	0,038	-0,31***	-0,101
ABS( $\Delta$ BVE)	0,020	-0,101	0,051	0,038	-0,039	0,071	0,394***	1,000	-0,084	-0,065	-0,066	0,003	0,209***	-0,22***	-0,015
LN MV	0,137*	0,076	-0,109	0,071	0,039	0,086	-0,017	-0,073	1,000	-0,034	0,046	0,073	-0,151**	0,176**	-0,007
LN AGE	0,069	0,029	0,132	-0,143*	-0,137*	-0,047	-0,049	-0,110	-0,024	1,000	0,071	-0,241	0,041	0,083	-0,048
OWN DIFF	0,150*	0,118	-0,041	0,171**	0,163**	0,108	0,030	-0,081	0,031	0,060	1,000	-0,163**	0,084	-0,133*	0,023
SLSGR	-0,119	0,150*	0,011	-0,018	-0,062	-0,090	-0,066	-0,112	0,110	-0,20***	-0,111	1,000	-0,123	0,116	-0,029
LEVERAGE	0,154*	0,051	-0,024	0,112	-0,092	0,042	0,158*	0,253***	-0,137*	0,053	0,070	-0,052	1,000	-0,31***	0,013
ROA	-0,063	-0,118	-0,103	0,010	0,148*	-0,018	-0,332***	-0,340***	0,269***	0,061	-0,083	0,081	-0,360***	1,000	0,014
USGAAP	-0,002	0,160**	0,167**	-0,122	-0,162**	-0,24***	-0,143*	0,024	-0,053	-0,029	0,022	-0,024	0,011	-0,007	1,000

**Table 5: Earnings Management Activity per Corporate Governance Category**

Panel A shows the number of firms scoring 0, 1, 2, 3, 4 or 5 on DISCL subdivided per corporate governance class. The significance of the Pearson Chi<sup>2</sup> statistic shows how these frequencies differ across governance classes. Panel B shows the number of firms scoring 0 or 1 on EARLYADOP subdivided per corporate governance class. The significance of the Pearson Chi<sup>2</sup> statistic shows how these frequencies differ dependent on the governance class. Panel C shows univariate results for four groups of firms, categorized by their corporate governance rating: category 0 (3) contains the worst (best) governance firms. Median figures of DIFFACC and |DIFFACC| (for definition see Table 2) are shown, together with the significance levels (1-sided p-values) of all mutual differences the four categories, measured respectively with a Rank Sum test.

	Cl. 0 (n=38)	Cl. 1 (n=38)	Cl. 2 (n=38)	Cl. 3 (n=38)
Mean CORPGOV	<b>17,9</b>	<b>21,43</b>	<b>26,81</b>	<b>32,5</b>
<b>1. DISCL (#)</b>				
DISCL= 0	3	0	0	0
DISCL= 1	1	1	1	0
DISCL= 2	6	4	3	0
DISCL= 3	11	9	5	3
DISCL= 4	11	14	13	20
DISCL= 5	6	10	16	15
SUM	38	38	38	38
Chi-square = 30,10 <i>p-value = 0,012</i>				
<b>2. EARLYADOP (#)</b>				
EARLYADOP= 0	16	19	22	28
EARLYADOP= 1	22	19	16	10
SUM	38	38	38	38
Chi-square = 8,41 <i>p-value = 0,038</i>				
<b>3a. DIFFACC (MEDIAN)</b>	-0,0006	-0,0045	-0,0084	-0,0161
Rank Sum Test				
<i>p-values (0-1-2-3)</i>	0,05	0,08	0,13	
<i>p-value (0-2)</i>		0,00		
<i>p-value (1-3)</i>			0,01	
<i>p-value (0-3)</i>		0,00		
<b>3b.  DIFFACC  (MEDIAN)</b>	0,0080	0,0092	0,0110	0,0161
Rank Sum Test				
<i>p-values (0-1-2-3)</i>	0,12	0,27	0,11	
<i>p-value (0-2)</i>		0,05		
<i>p-value (1-3)</i>			0,03	
<i>p-value (0-3)</i>		0,00		

**Table 6: Regression Analysis of Disclosure Quality**

This table presents coefficients and p-values (in italic) from regression model (2) with DISCL as dependent variable. The test variable CORPGOV, measured by the governance rating is entered in the second model. It is entered in the third model as the predicted value of the first stage regression (5). All variables are defined in Table 2.

Variable	pred. sign	DISCL 1	DISCL 2	DISCL 3 2-SLS
CORPGOV	+		0,052 <i>0,014</i>	0,079 <i>0,002</i>
IPR	+	4,126 <i>0,000</i>	3,263 <i>0,000</i>	
ABS( $\Delta$ NI)	+	-4,530 <i>0,291</i>	-6,002 <i>0,157</i>	-3,265 <i>0,473</i>
ABS( $\Delta$ BVE)	+	-1,395 <i>0,378</i>	-1,559 <i>0,314</i>	-1,770 <i>0,298</i>
LNMV	+	0,269 <i>0,029</i>	0,248 <i>0,040</i>	0,289 <i>0,028</i>
LNAGE	+	-0,024 <i>0,783</i>	0,028 <i>0,755</i>	-0,001 <i>0,988</i>
ROA	?/+	-1,160 <i>0,524</i>	-2,147 <i>0,240</i>	-2,073 <i>0,292</i>
SLSGR	?	-0,010 <i>0,198</i>	-0,008 <i>0,328</i>	-0,008 <i>0,338</i>
LEVERAGE	?/+	0,853 <i>0,199</i>	1,026 <i>0,116</i>	1,365 <i>0,056</i>
OWNDIFF	+	0,004 <i>0,282</i>	0,000 <i>0,934</i>	0,002 <i>0,653</i>
USGAAP	?/+	0,169 <i>0,735</i>	0,032 <i>0,949</i>	-0,565 <i>0,259</i>
Constant	?	-4,158 <i>0,050</i>	-4,680 <i>0,025</i>	-3,113 <i>0,168</i>
INDUSTRYD		Incl.	Incl.	Incl.
R <sup>2</sup>		0,474	0,504	0,404
Adjusted R <sup>2</sup>		0,251	0,286	0,151
No Obs		152	152	152

**Table 7: Logistic Regression Analysis of Early Adoption of IAS39**

This table lists coefficients and p-values (in italic) from the logistic regression model (3) with EARLYADOP as dependent variable in each case. The first specification is a control model. In the second specification, the signed impact of IAS 39 on book value of equity of the transition year (IMP(IAS39)) is included. In the third specification, a dummy variable measuring the IAS 39 impact (D\_IMP(IAS39)) is included together with an interaction dummy variable between CORPGOV and D\_IMP(IAS39). IMP(IAS39) is dropped from the model and replaced by its absolute value (ABS SIZE 39). CORPGOV is entered in the fourth model as the predicted value of the first stage regression (5). All variables are defined in Table 2.

Variable	pred. sign	EARLYADOP	EARLYADOP	EARLYADOP	EARLYADOP
		1	2	3	4 2-SLS
CORPGOV	+/?		-0,069 <i>0,086</i>	-0,162 <i>0,006</i>	-0,204 <i>0,002</i>
IMP(IAS39)	+	24,461 <i>0,012</i>	25,856 <i>0,010</i>		
D_IMP(IAS39)	-			-6,602 <i>0,001</i>	-6,811 <i>0,002</i>
D_IMP(IAS39)*CORPGOV	+			0,205 <i>0,008</i>	0,214 <i>0,013</i>
ABSIMP(IAS39)	+			13,943 <i>0,184</i>	11,131 <i>0,271</i>
IPR	?	-3,053 <i>0,069</i>	-1,632 <i>0,359</i>	-1,920 <i>0,324</i>	
ABS(ΔNI)	-	8,961 <i>0,321</i>	11,225 <i>0,222</i>	14,734 <i>0,118</i>	13,154 <i>0,165</i>
ABS(ΔBVE)	-	-10,716 <i>0,017</i>	-10,013 <i>0,019</i>	-10,637 <i>0,021</i>	-9,354 <i>0,049</i>
LNMV	+	0,141 <i>0,497</i>	0,156 <i>0,452</i>	0,171 <i>0,434</i>	0,192 <i>0,380</i>
LNAGE	?	-0,070 <i>0,677</i>	-0,105 <i>0,546</i>	-0,120 <i>0,518</i>	-0,127 <i>0,486</i>
ROA	?	-3,347 <i>0,360</i>	-3,760 <i>0,286</i>	-2,701 <i>0,451</i>	-2,224 <i>0,515</i>
SLSGR	?	0,018 <i>0,226</i>	0,021 <i>0,167</i>	0,003 <i>0,110</i>	0,028 <i>0,068</i>
LEVERAGE	?	1,052 <i>0,367</i>	0,824 <i>0,476</i>	0,815 <i>0,527</i>	0,581 <i>0,644</i>
OWNDIFF	+	0,013 <i>0,121</i>	0,017 <i>0,062</i>	0,022 <i>0,024</i>	0,019 <i>0,044</i>
USGAAP	+	1,353 <i>0,258</i>	1,288 <i>0,280</i>	1,709 <i>0,189</i>	2,005 <i>0,123</i>
Constant	?	-0,837 <i>0,826</i>	-0,498 <i>0,897</i>	3,056 <i>0,474</i>	1,171 <i>0,779</i>
McFadden R <sup>2</sup>		0,145	0,154	0,230	0,214
No Obs		152	152	152	152

**Table 8: Regression Analysis of Earnings Management Activity**

Panel A and Panel B of this table present coefficients and p-values (in italic) from regression model (4) with DIFFACC and |DIFFACC| as dependent variables, respectively. The test variable CORPGOV, measured by the governance rating is entered in the second model. It is entered in the third model as the predicted value of the first stage regression (1). All variables are defined in Table 2.

Panel A:					Panel B:				
Variable	pred. sign	DIFF ACC 1a	DIFF ACC 2a	DIFF ACC 3a 2-SLS	Variable	pred. sign	DIFF ACC  1b	DIFF ACC  2b	DIFF ACC  3b 2-SLS
CORPGOV	-		-0,001 <i>0,002</i>	0,002 <i>0,000</i>	CORPGOV	+		0,001 <i>0,035</i>	0,001 <i>0,001</i>
IPR	-	-0,039 <i>0,010</i>	-0,016 <i>0,337</i>		IPR	+	0,017 <i>0,174</i>	0,004 <i>0,793</i>	
ACC (PREADOP)	+	0,010 <i>0,691</i>	0,007 <i>0,777</i>	0,005 <i>0,828</i>	ACC (PREADOP)	-	-0,001 <i>0,956</i>	0,000 <i>0,985</i>	0,002 <i>0,914</i>
LN MV	-	0,000 <i>0,891</i>	-0,001 <i>0,639</i>	-0,001 <i>0,631</i>	LN MV	+	0,006 <i>0,001</i>	0,006 <i>0,001</i>	0,006 <i>0,000</i>
ROA	?	-0,078 <i>0,015</i>	-0,057 <i>0,072</i>	-0,052 <i>0,094</i>	ROA	?	-0,014 <i>0,592</i>	-0,024 <i>0,365</i>	-0,028 <i>0,279</i>
SLSGR	?	0,002 <i>0,101</i>	0,000 <i>0,073</i>	0,000 <i>0,069</i>	SLSGR	?	0,000 <i>0,513</i>	0,000 <i>0,591</i>	0,000 <i>0,625</i>
OWNDIFF	-	0,000 <i>0,875</i>	0,000 <i>0,700</i>	0,000 <i>0,886</i>	OWNDIFF	+	0,000 <i>0,213</i>	0,000 <i>0,376</i>	0,000 <i>0,233</i>
US GAAP	?	0,004 <i>0,709</i>	0,005 <i>0,570</i>	0,008 <i>0,382</i>	US GAAP	?	-0,007 <i>0,373</i>	-0,008 <i>0,311</i>	-0,007 <i>0,324</i>
Constant	?	0,036 <i>0,311</i>	0,048 <i>0,157</i>	0,047 <i>0,166</i>	Constant	?	-0,099 <i>0,001</i>	-0,103 <i>0,001</i>	-0,112 <i>0,000</i>
R <sup>2</sup>		0,108	0,169	0,153	R <sup>2</sup>		0,120	0,147	0,171
Adjusted R <sup>2</sup>		0,064	0,122	0,111	Adjusted R <sup>2</sup>		0,076	0,099	0,131
No Obs		150	150	150	No Obs		150	150	150

**Table 9: Regression Analysis of Overall Restatement Quality (QRIFRS)**

This table presents coefficients and p-values (in italic) from the following tobit regression model:

$$QRIFRS_i = \alpha + \beta_1 CORPGOV_i + \beta_2 IPR_i + \beta_3 NIREST_i + \beta_4 BVEREST_i + \beta_5 LNMV_i + \beta_6 LNAGE_i + \beta_7 ROA_i + \beta_8 SLSGR_i + \beta_9 LEVERAGE_i + \beta_{10} OWNDIFF_i + \beta_{11} USGAAP_i + \varepsilon_i$$

QRIFRS is the dependent variable, defined in Appendix C. The test variable CORPGOV, measured by the governance rating is entered in the second model. It is entered in the third specification as the predicted value of the first stage regression (5). All variables are defined in Table 2.

Variable	pred. sign	QRIFRS 1	QRIFRS 2	QRIFRS 3 2-SLS
CORPGOV	+		0,003 <i>0,020</i>	0,003 <i>0,009</i>
IPR	+	0,165 <i>0,002</i>	0,106 <i>0,075</i>	
NIREST	+	0,242 <i>0,417</i>	0,160 <i>0,588</i>	0,267 <i>0,375</i>
BVEREST	+	-0,229 <i>0,034</i>	-0,230 <i>0,031</i>	-0,238 <i>0,030</i>
LNMV	+	0,021 <i>0,003</i>	0,023 <i>0,001</i>	0,024 <i>0,001</i>
LNAGE	?/+	-0,002 <i>0,729</i>	0,001 <i>0,890</i>	0,000 <i>0,975</i>
ROA	?/+	-0,209 <i>0,078</i>	-0,267 <i>0,025</i>	-0,251 <i>0,038</i>
SLSGR	?/+	0,000 <i>0,883</i>	0,000 <i>0,867</i>	0,000 <i>0,901</i>
LEVERAGE	?/+	0,061 <i>0,130</i>	0,066 <i>0,095</i>	0,078 <i>0,053</i>
OWNDIFF	+	0,005 <i>0,095</i>	0,003 <i>0,214</i>	0,000 <i>0,110</i>
USGAAP	?/+	0,056 <i>0,099</i>	0,051 <i>0,134</i>	0,029 <i>0,375</i>
Constant	?	0,275 <i>0,037</i>	0,227 <i>0,084</i>	0,278 <i>0,039</i>
R <sup>2</sup>		0,206	0,233	0,190
Adjusted R <sup>2</sup>		0,143	0,167	0,127
No Obs		152	152	152

**Table 10: Regression Analysis with Full Sample**

Panel A presents coefficients and p-values (in italic) from regression model (2) with DISCL as dependent variable. DISCL is in this case a score on 4 instead of 5. Disclosure on sales is not considered because of the presence of financial companies. The test variable CORPGOV, measured by the governance rating is entered in the first model. It is entered in the second model as the predicted value of the first stage regression (5). All variables are defined in Table 2. Panel B lists coefficients and p-values (in italic) from the logistic regression model (3) with EARLYADOP as dependent variable in each specification. In the first specification, a dummy variable measuring the IAS 39 impact (D\_IMP(IAS39)) is included together with an interaction dummy variable between CORPGOV and D\_IMP(IAS39). IMP(IAS39) is dropped from the model and replaced by its absolute value (ABS SIZE 39). CORPGOV is entered in the second model as the predicted value of the first stage regression (5). The sample that is considered in both Panel A and B contains 223 observations, including 71 financial and insurance companies. All variables are defined in Table 2.

Panel A:

Variable	pred. sign	<b>DISCL</b> <b>1</b>	<b>DISCL</b> <b>2</b> <b>2-SLS</b>
CORPGOV	+	0,061 <i>0,000</i>	0,062 <i>0,001</i>
IPR	+	1,174 <i>0,098</i>	
ABS( $\Delta$ NI)	+	2,163 <i>0,531</i>	3,756 <i>0,293</i>
ABS( $\Delta$ BVE)	+	0,532 <i>0,638</i>	0,230 <i>0,845</i>
LNMV	+	0,127 <i>0,165</i>	0,169 <i>0,074</i>
LNAGE	+	0,063 <i>0,371</i>	0,035 <i>0,641</i>
LOSS	?	-0,263 <i>0,421</i>	-0,331 <i>0,331</i>
MTBV	?/+	-0,003 <i>0,806</i>	-0,003 <i>0,813</i>
OWNDIFF	+	0,002 <i>0,494</i>	0,004 <i>0,246</i>
USGAAP	?/+	-0,147 <i>0,735</i>	-0,283 <i>0,517</i>
Constant	?	-1,964 <i>0,215</i>	-1,467 <i>0,364</i>
INDUSTRYD		<i>Incl</i>	<i>Incl</i>
R <sup>2</sup>		0,380	0,324
Adjusted R <sup>2</sup>		0,191	0,123
No Obs		223	223

Panel B:

Variable	pred. sign	EARLYADOP 1	EARLYADOP 2 2-SLS
CORPGOV	?	-0,107 0,010	-0,123 0,007
D_IMP(IAS39)	-	-5,887 0,000	-4,550 0,005
D_IMP(IAS39)*CORPGOV	+	0,173 0,003	0,121 0,057
ABSIMP(IAS39)	+	9,635 0,037	8,388 0,058
IPR	?	-0,122 0,934	
ABS( $\Delta$ BVE)	-	-6,936 0,031	-5,561 0,078
LNMV	+	-0,103 0,566	-0,018 0,920
LNAGE	?	-0,243 0,096	-0,294 0,047
LOSS	?	0,737 0,249	0,606 0,337
MTBV	?	-0,172 0,039	-0,163 0,057
OWNDIFF	+	0,025 0,001	0,023 0,002
USGAAP	+	1,017 0,334	0,726 0,464
Constant	?	4,515 0,177	3,693 0,252
McFadden R <sup>2</sup>		0,219	0,205
No Obs		223	223

## APPENDIX A: Details on Corporate Governance Ratings

### 1. RIGHTS AND DUTIES OF SHAREHOLDERS

- a. Treatment of the 'one share – one vote – one dividend' principle
  - i. Respect/violation of the 'One Share – One Vote' principle*
  - ii. Respect/violation of the 'One Share – One Dividend' principle*
- b. Voting issues
  - i. Range of issues that are obligatorily submitted to the General Meeting*
  - ii. Quorum and majority requirements*
  - iii. Percentage of Board members elected by the General Meeting*
- c. Shareholder proposals and derivative action
  - i. Shareholder proposals*
  - ii. Derivative actions*
  - iii. Derivative action for damages*
  - iv. Action for annulment*
- d. Voting procedures and methods
  - i. Legal timing for the convening of an Annual General Meeting*
  - ii. AGM admission formalities*
  - iii. Postal and Internet voting*
  - iv. Proxy voting*
  - v. Confidential voting*
  - vi. Voting methods at the General Meeting*
  - vii. Follow-up of the General Meeting*
- e. Attendance rate
- f. Maintenance of pre-emptive rights of existing shareholders

### 2. RANGE OF TAKE-OVER DEFENCES

- a. Presence of structural take-over defences
  - i. Capital structure*
  - ii. Board Insulation*
  - iii. Voting right distortions*
  - iv. Ownership right distortions*
- b. Presence of capital take-over defences
  - i. Share repurchase*
  - ii. Authorised capital*
- c. Presence of other take-over defences

### 3. DISCLOSURE ON CORPORATE GOVERNANCE

- a. Disclosure on general information
  - i. Availability and language of documents*
  - ii. Accounting standards*
  - iii. Compliance with a Code of Best Practice*
  - iv. Auditors' mandates*
  - v. Political and charitable information*
  - vi. Environmental information*
- b. Information on the company's capital and shareholder structure
- c. Information on the company board
  - i. Composition and functioning of the Board*
  - ii. Remuneration of the Board*
- d. Information on the company's committees
- e. Information on stock options

### 4. BOARD STRUCTURE AND FUNCTIONING

- a. Election of the members of the company's bodies
  - i. General description*
  - ii. Election of Company directors*
  - iii. Age limitation*
  - iv. Size of the Board*
- b. Composition of the company board
  - i. Number of Executive Directors*
  - ii. Independent Directors*
  - iii. Diversity*
  - iv. Separation of CEO and Chairman*
- c. Functioning of the board
  - i. Workings of the Board*
  - ii. Internal conduct*
- d. Remuneration of the company's bodies
  - i. Remuneration of Board Members*
  - ii. Remuneration of Executive Directors for their executive functions*
  - iii. Stock Option Plans*
- e. Committees of the board

## APPENDIX B: Restatement information disclosed by Grupo Ferrovial

### 1. Restatement of Book Value of Equity in Y0

a. Equity at 1 January 2004

	Thousand euro
Equity at 1 January 2004 according to accounting principles and standards generally accepted in Spain in force at that date(*)	1,753,943
Impact of the transition to IFRS:	
No capitalisation of finance expenses for toll highways	-282,936
Depreciation of toll highways	-62,241
Reclassification of treasury shares	-14,949
Fair value derivatives	3,991
Provision for pensions	-25,085
Other	-9,478
Total impact on equity	-390,698
Equity at 1 January 2004 under IFRS	1,363,245
Minority shareholders	466,381
Total equity at 1 January 2004 under IFRS	1,829,626

(\*) Obtained from the consolidated financial statements at 31 December 2003 prepared in accordance with accounting principles and standards applicable in Spain.

### 2. Restatement of Net Income

b. Profit and loss account for 2004

The main differences in the profit and loss account for 2004 deriving from the application of international financial reporting standards are summarised below:

	Thousand euro
Profit for 2004 according to accounting principles and standards generally accepted in Spain in force at that date (*)	556,841
Impact of transition to IFRS:	
No capitalisation of finance expenses on toll highways	-78,930
No amortisation of goodwill	57,302
Depreciation of toll highways	-13,324
Start-up expenses	2,612
Financial lease agreements	203
Results obtained on listing of Cintra, S.A. on stock market	26,230
Results from disposal of treasury shares	-9,561
Fair value derivatives	-5,204
Exchange rate differences	-8,615
Other	998
Total impact of profit/(loss) for year	-28,289
2004 profit according to IFRS	528,552

(\*) Obtained from the consolidated financial statements at 31 December 2004 prepared in accordance with accounting principles and standards applicable in Spain.

### 3. Restatement of Book Value of Equity in Y1

c. Equity at 31 December 2004

	Thousand euro
Equity at 1 January 2004 according to accounting principles and standards generally accepted in Spain in force at that date(*)	2,253,119
Impact of transition to IFRS:	
Adjustments to opening equity	-390,698
Adjustments to profit/(loss) for year	-28,289
Results from disposal of treasury shares	9,561
Reclassification of treasury shares	11,879
Results obtained on listing of Cintra, S.A. on stock market	-18,471
Fair value derivatives	1,104
Total impact on equity	-414,914
Equity at 31 December 2004 according to IFRS	1,838,205
Minority shareholders	680,196
Total equity at 31 December 2004 according to IFRS	2,518,401

(\*) Obtained from the consolidated financial statements at 31 December 2004 prepared in accordance with accounting principles and standards applicable in Spain.

## APPENDIX C: Measurement of Overall Restatement Quality (QRIFRS) and Investor Protection Rights (IPR)

In this appendix, we construct composite indicators to capture overall restatement quality (QRIFRS) and investor protection rights at the country level (IPR). QRIFRS contains information from the four single indicators of the restatement process which we consider in this study, namely DISCL, EARLYADOP, DIFFACC and |DIFFACC|. IPR is a composite indicator that bundles information from four institutional variables identified by La Porta et al. (2006). These four indicators are ADR, DIS\_REQ, LIT\_STD and PUB\_ENF and are defined, respectively, as follows: an anti-director rights index based on the presence of six elements of investor protection in a country's corporate legislation, a disclosure index measuring the extent to which disclosure of information is required for firms issuing securities, a litigation index measuring the liability standard for investors to recover damages when there has been a disclosure of false or incomplete information in the issuance of securities, and a public enforcement index measuring the protection investors enjoy by the regulatory securities bodies in a country.

In this procedure, we construct one restatement quality indicator for each individual firm (QRIFRS), capturing information from four single indicators of the restatement process (DISCL, EARLYADOP, DIFFACC and |DIFFACC|). These 'benefit-of-the-doubt' composite indicators allow for flexible weighting, and so they do not require identifying the weight (or 'importance') of each single indicator *a priori*. When a firm performs better in a particular dimension of the restatement process, then that dimension gets a relatively higher weight in the construction method; the underlying intuition is that better relative performance indicates higher policy priority. This is an attractive feature in this context, since it is generally difficult to define *a priori* the relative importance of alternative measures of restatement quality for individual firms. Next, this methodology also allows us to restrict weights that are attached to certain indicators. Finally, on the practical level, the composite indicators are easily computed by means of linear programming.

$Y_{i,j}$  ( $j=1,2,3$ ) is the value for each single indicator  $j$  for each firm  $i$ . In a first step, we scale the indicators between 0 and 1, with 1 indicating that the best quality in the sample. To keep the notation simple, we use  $y_{i,j}$  for the normalized indicators in what follows. Subsequently, we construct a composite indicator as a weighted sum after assigning a weight  $w_{i,j}$  to each  $y_{i,j}$ , which yields

$$\sum_{j=1}^3 w_{i,j} y_{i,j} \tag{1}.$$

These indicators benchmark each evaluated firm against the firm  $k$  with the highest restatement quality. In that construction, this is the one obtaining the largest sum value (1 or 100%) when using the weights of the evaluated firm  $i$ . This obtains the relative composite indicator

$$\frac{\sum_{j=1}^3 w_{i,j} y_{i,j}}{\max_{y_k \in \{\text{studied countries}\}} \sum_{j=1}^3 w_{i,j} y_{k,j}} \quad (2).$$

So far, we have assumed that the weights  $w_{i,j}$  are given *a priori*. In practice, however, we typically do not know these weights. As mentioned before, the ‘benefit-of-the-doubt’ method attaches, for each evaluated firm, a higher weight to those restatement aspects in which the firm performs relatively better. In terms of (2), this boils down to choosing those weights that maximize the corresponding ratio, which gives

$$QRIFRS_i = \max_{w_{f,j}} \frac{\sum_{j=1}^3 w_{i,j} y_{i,j}}{\max_{y_k \in \{\text{studied countries}\}} \sum_{j=1}^3 w_{i,j} y_{k,j}} \quad (3).$$

This clearly reflects the benefit-of-the-doubt idea that underlies the aggregation methodology: for the evaluated firm  $I$ , the method chooses those ‘most favourable’ weights that maximize the relative composite indicator value. The resulting indicator value captures the aggregate restatement quality of the firm  $i$ . By construction, the value lies between 0% and 100%; higher values indicate better overall quality.

However, when constructing composite indicators for QRIFRS, we encounter a number of problems. First, at the practical level, if weights on DISCL and EARLYADOP were not to be restricted, companies with a maximum disclosure score or adopting IAS39 early would all receive a score of 100% (as all the weight would go to that indicator). However, these firms may still differ from each other in terms of restatement quality because of different earnings management activity. Second, in the current context, we posit that the disclosure quality and IAS39 adoption are, arguably, of lower relevance to investors than the earnings management activity in assessing IFRS restatement quality. The primary reason the European authorities had in mind when deciding to make IFRS mandatory across Europe was to lower the firms’ cost of capital through the reporting of higher quality earnings. Therefore, we argue that the earnings quality effects of IFRS adoption is the most important aspect of restatement quality and is subsequently provided with the biggest weight.

Therefore, we restrict weights in computing QRIFRS in the following manner. Weights attached to DISCL and EARLYADOP are not allowed to exceed the weights belonging to DIFFACC and |DIFFACC|, for each individual firm. Applying weight restrictions resolves the above-mentioned problems, as priority is given to DIFFACC and |DIFFACC|. A firm scoring ‘1’ on EARLYADOP does not automatically receive a maximum score. Not using weight restrictions does not alter our conclusions but we believe in this case the overall score is a less accurate measure of restatement quality.