IFRS and the Use of Accounting-Based Performance Measures in Executive Pay

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Abstract

We examine the effect of IFRS on the use of performance measures for evaluating and rewarding managers. We find that firms make less use of accounting-based performance measures post-IFRS. We argue that IFRS adds "noise" to accounting numbers that makes reported earnings less useful for evaluating managerial performance. This is mainly due to the adoption of "fair value" accounting (FVA), which potentially makes accounting numbers more value-relevant, but also more volatile and sensitive to market movements. This study suggests that, whilst IFRS may have made accounting earnings more useful for stock market valuation purposes, this may have been achieved at the expense of other purposes that accounting serves, i.e., stewardship/performance contracting. In other words as accounting numbers are designed to conform more and more closely with market values, then the less they are able to provide information over what is complementary to market values for evaluating performance.

Keywords: Optimal Contracting, IFRS, Performance Measures, Executive Pay, Fair Value Accounting

JEL Classification: M41, G34, M21

1. Introduction

"I expect the relative use of modified GAAP earnings in top management compensation to decline if standard-setters continue on their current course." (Watts 2006, p. 59)

The aim of this study is to investigate the effect of the introduction of International Financial Reporting Standards (IFRS) on the use of accounting earnings for evaluating and rewarding managerial performance. Studies of the effects of IFRS adoption so far have mainly focused on its impact on the informational properties of earnings for valuation purposes (Barth et al. 2008; Daske et al. 2008). The results of these studies indicate that IFRS adoption is associated with earnings becoming timelier, more volatile and more informative, making their introduction beneficial for investors and shareholders.

However, accounting statements are general purpose and are required to fulfill more than one role. Specifically, they are required to provide information for stewardship and contracting purposes, as well as information that is value-relevant. It is possible that an increase in value relevance could be achieved at the expense of decreased usefulness for these other purposes. The purpose of this study is to examine whether the use of earnings for performance-related pay contracts decreases due to the introduction of IFRS in the UK.

We make use of an extensive, mostly hand-collected, sample of more than 3,000 UK firm-year observations over eight years and show that firms place a lower weight on Earnings-per-Share (EPS) based performance measures in executive pay contracts after the introduction of IFRS.

We explain this phenomenon using the predictions of optimal contracting theory (Holmstrom 1979; Lambert 2001). Mainly due to the use of "fair value" accounting (FVA), which IFRS advocate highly (Cairns 2006; Laux and Leuz 2009), financial statements since the introduction of IFRS contain extra value-relevant information, thus making accounting numbers more closely associated with market values. However, if accounting numbers become more sensitive to market movements then the accounting related signals provide little additional information about managerial performance, as they no longer screen out market related noise (Kim and Suh 1993). Moreover, the move to FVA makes accounting earnings figures more volatile (Barth 2004; Barth et al. 2001). If the increase in earnings volatility is driven by events almost entirely outside the control of management then this also reduces the attractiveness of earnings as a basis for performance-based contracts. Due to the fair value approach that IFRS adopts, Watts (2006) predicts a decrease in the relative use of accounting earnings for rewarding and evaluating managers; our results are consistent with this prediction.

According to optimal contracting theory, a performance measure is more useful for contracting purposes if it is more informative about the manager's actions, or in other words if it contains a smaller amount of inherent "noise" (Lambert and Larcker 1987). Therefore, a decrease in the use of EPS-based figures for evaluating managers' performance implies that the extra information added to accounting figures post-IFRS decreases the signal to noise ratio of accounting earnings in relation to managers' actions, thus making accounting earnings less useful for evaluating managers. In effect, our results indicate that there is indeed a decrease in the signal to noise ratio

post IFRS. This could lead to an increase (decrease) in the use of market (accounting) based figures for performance evaluation.

We need to acknowledge the fact that a decrease in the use of accounting-based performance measures could be due to other non-IFRS related reasons, that is, macroeconomic business cycles and/or changes in firms' executive pay practices. By running a number of tests, a difference-in-differences analysis among others, we try to show that the decrease in the use of accounting based performance measures is at least partly attributable to the introduction of IFRS and is not driven entirely by other unidentified confounding effects.

We make several contributions to the literature. First, we take a different perspective to the introduction of IFRS and study their contractual rather than informational consequences, as the majority of the literature does so far. To our knowledge, only one study has a similar approach to ours and, we believe, it has serious methodological issues (Wu and Zhang 2009). Our study indicates that IFRS have resulted in a decrease in the use and relative importance of accounting numbers for managerial performance purposes, in line with Watts'(2006) predictions. Thus, it would appear that the increased correlation between accounting numbers and stock market values, which some people interpret as an increase in decision usefulness, was purchased at the expense of the decreased usefulness of accounting numbers for other purposes. Second, our study adds to the existing literature on the impact of regulation on executive pay practices. Our results are in line with Hall and Murphy (2003), who claim that accounting considerations and regulations are relevant to executive pay-related decisions made by firms.

We develop our hypotheses in section 2 and discuss our research design in section 3. In section 4 we report our main results. Robustness checks and limitations are in section 5. We conclude in section 6.

2. Literature Review and Hypothesis Development

2.1. Accounting and Market-Based Performance Measures in Executive Compensation Contracts: What Determines their Use?

Agency theory predicts that the decision to use a performance measure in a pay contract depends on how informative it is about the manager's actions (Holmstrom 1979; Lambert 2001). Although the main objective of the shareholders is firm value maximization, this does not necessarily imply that the exclusive use of market-based performance measures is the optimal choice for rewarding managers. Optimal contracting theory suggests that managers should be rewarded for their actions (i.e., contribution towards the firm's output) and not the firm's actual output (Lambert 1983). This is mainly because equity returns (like every other performance measure) are partly a function of the manager's actions and partly due to random economic events that are unobservable and outside the manager's control. The inclusion of an accounting-based measure to assess the manager's performance potentially improves risk sharing between the managers and the shareholders by smoothing out the effects of "noisy", market-driven events on managerial rewards (Lambert and Larcker 1987).

The choice of relative weights that market and accounting-related measures receive in a managerial pay contract depends on the signal to noise ratio of each measure in relation to the manager's actions (Sloan 1993). Any decrease in the relative signal to noise ratio of a measure makes it relatively less useful and thus leads to a decrease in its weight in the manager's contract.

Using different methodologies, a number of studies empirically test the predictions of optimal contracting theory. Lambert and Larcker (1987) examine the use of stock returns and the Return on Equity (ROE) as performance measures for managerial cash compensation. They use of a number of different measures for noise, namely the ratio of the time series variance of the stock returns over the variance of ROE, the systematic variance of the firm's time series of stock returns over the systematic variance of the firm's time series of ROE and, finally, the correlation between stock returns and ROEs. Initially, they demonstrate the existence of a linear relationship between the two performance measures and executive pay. Interestingly, they show that this relationship is stronger for the ROE measure than for the stock return measure. Consistent with agency theory, they report that the relative weight that each measure receives is an inverse function of the degree of inherent "noise" in each measure.

Sloan (1993) mainly focuses on the use of accounting earnings as a measure of managerial performance. He calculates the inherent noise of accounting and market based performance measures by calculating their conditional variance, that is, the variance that depends only on the manager's actions. He finds that the use of earnings for rewarding managers makes their compensation less sensitive to market-wide

fluctuations in equity value. He concludes that earnings-based performance measures are used to "filter out" the noise in the market-based ones. As a result, a decrease in the signal to noise ratio of earnings-based performance measures makes their use by firms for performance contracting less likely.

Finally, in a study that incorporates the use of non-financial performance measures for managers, Ittner et al. (1997) show that firms place a higher weight on non-financial performance measures as the noise in the financial-based ones increases.

2.2. International Financial Reporting Standards (IFRS): Their Effect on Earnings Properties.

A number of studies investigate the financial reporting consequences of the adoption of IFRS. Barth et al. (2008) show that the voluntary adoption of IFRS is associated with less earnings management (i.e. less earnings smoothing), timelier loss recognition and higher value relevance of accounting earnings. As metrics for these earnings properties, the authors use, among others, the variability of the change in earnings, the ratio of the variability of the change in earnings to the variability of the change in cash flows and the recognition of large losses. Barth et al. (2008) claim that these characteristics suggest that accounting earnings are more informative (for value) and of higher quality, after the introduction of IFRS. Hung and Subramanyam (2007) reach similar conclusions about accounting quality for German voluntary adopters between 1998 and 2002.

The results are mixed in similar studies of mandatory adopters of IFRS. Although Christensen et al. (2008) report similar results to Barth et al. (2008) for voluntary German IFRS adopters, they show that firms forced to adopt IFRS demonstrate no signs of accounting quality improvement. Similarly, Jeanjean and Stolowy (2008) find no indication of a decrease in earnings management for firms for which IFRS adoption was mandatory, in Australia, France and the UK.

On the other hand, Horton and Serafeim (2010) study the reconciliation of accounting figures from the local Generally Accepted Accounting Principles (GAAP) to IFRS in the UK, where the adoption of IFRS was mandatory for all firms after 2005. They show that the market reacts to negative earnings adjustments due to IFRS reconciliations and also that positive (negative) adjustments are value-relevant, pre and post (only post) IFRS. These results strongly indicate that accounting earnings in the UK become more informative for valuation purposes, post-IFRS.

Christensen et al. (2009) also show market reactions due to IFRS reconciliations and the new information they convey. However, they also find that the market reactions are more pronounced in firms that face debt covenant violations from earnings adjustments due to IFRS. These results suggest that the market reaction to IFRS adoption in the UK was driven, at least in part, by contractual considerations. However, they take the set of contracts as given, and do not consider the possibility that IFRS adoption may have led to changes in contracts because of the changes in the properties of accounting earnings driven by IFRS.

In an approach similar to ours, Wu and Zhang (2009) study the consequences of voluntary implementation of IFRS from a stewardship perspective. They claim that, with earnings being more informative after the introduction of IFRS, their role is expected to be more important in the firm's internal performance evaluation. More precisely, they show an increase in the sensitivities of CEO turnover and employee layoffs to earnings in the post-IFRS period, for their sample of voluntary adopters from ten European countries. However, Wu and Zhang (2009) do not take into account the fact that, as previously analyzed, even if earnings are more informative for valuation purposes, they are not necessarily so for stewardship purposes as well. Moreover, due to data unavailability, they do not make use of the terms of the contractual agreements they examine, something that we do in our study. Therefore, they cannot establish whether the changes in CEO turnover and employee layoff sensitivities post-IFRS are actually due to a higher emphasis being placed on accounting earnings for internal performance evaluations. The fact that they do not establish this direct link allows for alternative interpretations of their reported results, based on confounding effects.

2.3. Main Hypothesis

The above analysis implies that the majority of the literature so far associates the increase in accounting quality with more informative and more volatile earnings. This makes accounting information timelier and leads to more informed firm valuations. In the case of IFRS, particularly, this is mainly related to the use of FVA, a concept that IFRS highly advocate (Cairns 2006; Laux and Leuz 2009). FVA aims to contribute towards the transparency of financial statements, by bringing them closer to current

market conditions. Accounting figures thus become more volatile and dependent on market movements. FVA supporters claim that it adds extra value-relevant information to financial statements, thus making them more useful to investors for firm valuation purposes (Barth et al. 2001).

However, this increased earnings volatility can come at a cost if it adds unnecessary noise to reported earnings (Ball 2006). Based on our previous analysis, we can infer that noisier earnings could potentially reduce the usefulness of accounting earnings for managerial contracting purposes. “Providing more information thus can be worse than providing less, if it is accompanied by more noise” (Ball 2006, p. 14). As a result, Watts (2006) foresees a decrease in the relative use of accounting earnings in executive pay contracts mainly due to the fair value approach that IFRS adopts.

The purpose of this study is to examine whether the introduction of IFRS has made accounting earnings less useful for evaluating managers’ performance and has thus led to a decrease in the use of accounting measures in managerial performance contracts. More specifically, firms are more likely to decrease the weight placed on earnings-related performance measures in managerial pay contracts if the introduction of IFRS is associated with a decrease in the signal to noise ratio of earnings in relation to the manager’s actions. We expect this to be the case, due to the move to FVA, which makes accounting earnings more volatile and potentially less informative about managerial performance. In other words, even if earnings become more informative for valuation purposes after the introduction of IFRS (i.e., less earnings management, timelier loss recognition), a decrease in the use of accounting earnings as a performance measure implies that this extra information contains a large amount of

inherent "noise" that is not related to the manager's performance. More formally, the hypothesis we are testing is:

Hypothesis 1*: IFRS causes accounting earnings to be less informative about managerial actions and thus their introduction leads to a decrease in the weight placed on accounting earnings as a performance measure in managerial contracts.*

3. Research design

3.1. Model Specification

To test our hypothesis, we use a number of specifications and model designs. Initially we run the following rank-ordered logit model:

$$\underset{Weight\,(0,1,2)_{i,t}}{EPS\ \ Target} = b_0 + b_1 IFRS\,(0,1)_{it} + b_2 OTHER\ CONTROL\ VARIABLES_{it} + \varepsilon_{it} \quad (1a)$$

where EPS TargetWeight is an ordinal dependent variable that takes the value zero if the firm adopts a market-based performance measure, one if the firm uses a combination of an EPS-related and a market-based performance measure and two if the firm uses an EPS-related performance measure exclusively. IFRS takes the value one for the post-IFRS period and zero for the pre-IFRS period. We predict that post-IFRS firms will decrease the relative weight of accounting-based performance

measures; therefore, we expect a negative coefficient for the main independent variable.

We include a number of additional control variables to guard against the possibility that the decreased use of EPS-based performance measures is driven by changes in other factors, correlated with the introduction of IFRS.

We expect larger firms to place higher weight on market-based performance measures. Large firms attract more public and political attention (Watts and Zimmerman 1990). These firms are more likely to make use of performance measures for evaluating and rewarding their managers that are beyond the managers' direct control: they make their pay more dependent on market-based targets, to decrease potential political costs and public outrage. We include as a proxy for firm size, the natural logarithm of the year-end market value of equity, which we name SIZE.

Following Skinner (1993), we expect firms with more tangible assets to give more weight to accounting-based measures, since the actions of the managers of these firms are more easily monitored through accounting-based figures. On the other hand, firms with higher growth opportunities are more likely to place more weight on market-based measures, since their actions are not yet reflected in accounting figures. To proxy for the firm's assets we use the ratio of the year-end book value of Property, Plant and Equipment to the Market Value of Equity (PPE) and for the firm's growth opportunities we use the firm's stock market to book value ratio (MTBV) and the ratio of R&D expenditure to net sales, expressed as a percentage (R&D), as in Skinner (1993). Moreover, we expect firms with higher growth opportunities to have lower

leverage (Smith and Watts 1992) so we expect more levered firms to place more weight on market-based performance measures too. As a proxy for leverage, we include the ratio of the end-of-year total liabilities to total assets (LEV).

Based on the results of Nagar et al. (2003), we expect firms with a higher number of industry segments to put more weight on accounting-based performance measures. These firms benefit from a portfolio effect that makes their economic earnings smoother. Therefore, they are more likely to have less "noise" in their accounting figures. We include the number of four-digit SIC codes in which the firm operates to proxy for this effect (SEGMENTS).

Following Lambert and Larcker (1987), we include the rates of growth of total assets and sales (ASSETS GROWTH and SALES GROWTH, respectively) and we expect a negative relationship between these and the weight given to accounting-based performance measures. We predict a positive relationship between the use of a "Big Five" auditor and the use of EPS performance measures. Powerful auditors impose higher earnings quality (Francis and Wang 2008), and so these firms are more likely to use earnings to evaluate managers' performance. We thus include a dummy variable that takes the value 1 if the firm's auditor is PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen (for the relevant firm-years prior to Andersen suspending its operations), and zero otherwise (AUD).

We also include a dummy for the use of a compensation consultant by the firm. Studies show that compensation consultants play an important role in the determination of executive pay (Cadman et al. 2010; Voulgaris et al. 2010).

Therefore, it is reasonable to expect that they have an effect on the choice of managerial performance measures. We thus include a dummy variable that takes the value one if the firm uses the services of a compensation consultant and zero otherwise (CONSULT). The extant literature does not provide specific predictions on the direction of their effect on performance measure choice, so we cannot predict the sign of the coefficient for this independent variable.

Finally, we include proxies for the firm's stock return (raw annual stock return, RET) as a measure of firm performance, and industry and year dummies (IDUM and YEAR respectively), for which we are agnostic regarding expected signs. Moreover, we interact the IFRS dummy with firm characteristics, since we expect that firms with specific features are more likely to decrease the weight they give to EPS performance measures after the introduction of IFRS.

Thus, the first model for testing Hypothesis 1 is the following:

$$\begin{aligned} EPS\ TARGET\ WEIGHT\ (0.1.2)_{it} = {} & b_0 + b_1 IFRS\,(0,1)_{it} + b_2 SIZE_{it} + b_3 RET_{it} + b_4 LEV_{it} + b_5 VOL_{it} + \\ & b_6 CONSULT_{it} + b_7 AUD_{it} + b_8 SEGMENTS_{it} + b_9 PPE_{it} + b_{10} R\,\&\,D_{it} + \\ & b_{11} MTBV_{it} + b_{12} ASSETS\ GROWTH_{it} + b_{13} SALES\ GROWTH_{it} + \\ & \sum_{k=1}^{12} b_{k+13} IDUM_{it} + \sum_{y=1}^{7} b_{y+25} YEAR + \varepsilon_{it} \end{aligned} \qquad (1b)$$

To further test Hypothesis 1, we also examine whether the sensitivity of the use of earnings-based performance targets to the volatility properties of earnings changes significantly, post-IFRS. Prior literature uses these properties as metrics for the informational efficiency of accounting earnings (Barth et al. 2008; Christensen et al. 2008; Leuz et al. 2003). If the information content of earnings increases post-IFRS,

we expect earnings to become more volatile. Based on our previous analysis and the predictions of optimal contracting theory, if the (negative) sensitivity of these metrics of informational efficiency to the choice of accounting-based performance measures increases significantly (in absolute value) post-IFRS, this would indicate that the additional information causes a decrease in the signal to noise ratio of accounting earnings. Therefore, accounting earnings will have become less useful for evaluating managers and we will expect to see a decrease in the weight they receive in executive pay contracts. To control for this, we use the variability of changes in net income related to changes in cash flows, a metric of accounting quality and earnings variability used by Barth et al. (2008).

We initially run the following regressions:

$$\begin{aligned} DNI_{it} = \; & b_0 + b_1 SIZE_{it} + b_2 GROWTH + b_3 EISSUE_{it} + b_4 LEV_{it} + b_5 DISSUE_{it} + \\ & b_6 TURN_{it} + b_7 CF_{it} + b_8 AUD_{it} + b_9 NUMEX_{it} + b_{10} XLIST_{it} + b_{11} CLOSE_{it} + \\ & \sum_{k=1}^{12} b_{k+11} IDUM_{it} + \sum_{y=1}^{7} b_{y+23} YEAR + \varepsilon_{it} \end{aligned} \quad (2)$$

$$\begin{aligned} DCF_{it} = \; & b_0 + b_1 SIZE_{it} + b_2 GROWTH + b_3 EISSUE_{it} + b_4 LEV_{it} + b_5 DISSUE_{it} + \\ & b_6 TURN_{it} + b_7 CF_{it} + b_8 AUD_{it} + b_9 NUMEX_{it} + b_{10} XLIST_{it} + b_{11} CLOSE_{it} + \\ & \sum_{k=1}^{12} b_{k+11} IDUM_{it} + \sum_{y=1}^{7} b_{y+23} YEAR + \varepsilon_{it} \end{aligned} \quad (3)$$

where DNI is the change in the firm's net income divided by total assets, DCF is the change in the firm's cash flows from operating activities, divided by total assets, GROWTH is the percentage change in sales, EISSUE is the percentage change in common stock, DISSUE is the percentage change in total liabilities, TURN is sales

divided by end-of-year total assets, NUMEX is the number of stock exchanges on which a firm's stock is listed, XLIST is a dummy variable that takes the value one if the firm is listed on any US stock exchange and CLOSE is the percentage of closely-held shares in the firm.

We use the variances of the residuals from equations 2 and 3 to calculate the ratio of the change in net income over cash flows, DNI*/DCF*. We then use this as an independent variable in the following rank-ordered logit model:

$$EPS\ PERFORMANCE\ WEIGHT\ (0.1.2)_{it} = b_0 + b_1 DNI*/DCF*_{it} + b_2 SIZE_{it} + b_3 RET_{it} + b_4 LEV_{it} + b_5 VOL_{it} + b_6 CONSULT_{it} + b_7 AUD_{it} + b_8 SEGMENTS_{it} + b_9 PPE_{it} + b_{10} R\&D_{it} + b_{11} MTBV_{it} + b_{12} ASSETSGROWTH_{it} + b_{13} SALESGROWTH_{it} + \sum_{k=1}^{12} b_{k+13} IDUM_{it} + \sum_{y=1}^{7} b_{y+25} YEAR + \varepsilon_{it} \quad (4)$$

If Hypothesis 1 stands, we expect b_1 to increase (in absolute value) post-IFRS. We run equation 4 for all firms in the sample, and then split the sample between firms before and after IFRS adoption.

3.2. Data

We focus on the long-term incentive-based executive pay schemes adopted by UK listed firms. The UK is a major stock market based economy, where the use of equity based managerial compensation is widespread (Conyon and Murphy 2000). Following the recommendations of the Greenbury committee report (1995) the characteristics of long-term equity based CEO pay packages offered by UK listed firms have changed

significantly compared to their US counterparts (Conyon and Murphy 2000). Unconditional Executive Stock Options (ESOs) have been replaced by conditional ESOs or LTIPs (restricted share awards), which vest conditional on CEOs achieving specific targets. In this way, CEO pay-performance sensitivity increases and CEOs' interests are better tied to these of the shareholders (Buck et al. 2003). The conditions that need to be satisfied for these awards to vest can be accounting (EPS for the majority of firms) or market related (i.e., stock return or TSR) or a combination of both. These schemes usually have a 3 year time horizon, i.e., vesting period, and at the end of the period the compensation committee decides whether the conditions set have been met and if the award becomes payable to the CEO.

We collect data for UK listed firms from 2002 to 2009. IFRS was adopted by all UK listed firms for financial years starting on or after January 1st 2005. Having 2005 as a base year, we amass information for the 500 largest firms on the London Stock Exchange. We have 3,004 observations in total, 1,214 from pre-IFRS and 1,790 from the post-IFRS period. We hand-collect compensation-related data (i.e., performance measures, use of pay consultants) from the firms' annual reports, which we obtain from Thomson One Banker or, if unavailable there, from the firms' websites. We use Worldscope and Datastream for the remaining accounting and market data. Following Barth et al. (2008) and Christensen et al. (2008), we winsorize all of our non-binary variables at the 5% level, since accounting variables and variability metrics are very sensitive to outliers.

4. Empirical Findings

4.1. Descriptive Statistics

4.1.1. Performance Measure Choices

Table 1 presents descriptive statistics for the performance measures used by firms. Panel A is based on the pooled sample with all observations. To control for potential survivorship bias, Panel B includes statistics for a balanced sub-sample of firms for which we have observations for all years in our sample. Table 1 reports a significant decrease of more than ten percent in the exclusive use of accounting-based performance measures, both in the pooled and the balanced sample, after the introduction of IFRS. This initial result is consistent with Hypothesis 1. In addition, firms seem to increase the weight they place on market-based measures post-IFRS. There is an increase of more than three percent in their exclusive use and an increase of more than fifteen percent in the combined adoption of both types. Finally, the vast majority of the accounting-based performance measures are earnings-related (unreported result) and this explains our decision to focus our analysis on them.

Table 1 also shows some interesting results on variations in the use of performance measures across industries. We follow Campbell's (1996) industry classification, as this is commonly used in the related literature, for example, Daske et al. (2008). An initial observation is that the industry-level results are consistent with those for the whole cross-section, since in all industries there is a significant decrease in the weight placed on accounting-related performance measures post-IFRS. An interesting statistic

is the very low percentage of petroleum firms adopting a solely accounting-based performance measure compared to all other industries, which decreases slightly post-IFRS. Further, a very high percentage of petroleum firms use solely market-based performance measure. This could be tax-related, since studies have shown that mining firms have higher tax rates and that some of these taxes are considered expenses in other countries (Zimmerman 1983). This poses particular difficulties in calculating earnings figures for managerial evaluation and thus makes their use less likely.

Interestingly, financial firms, which are significantly affected by the introduction of IFRS and the use of FVA, seem to be amongst the industries with the highest fall in the exclusive use of accounting-based performance measures. Meanwhile, in the whole sample and across industries, there are falls in the percentages of firms that set no performance measures for their managers. This is an interesting result, since it illustrates UK firms' move towards adopting long-term incentive-based compensation with specific performance targets in recent years. Table 1 also illustrates a high level of heterogeneity in the choice of performance-based measures across industries.

Insert Table 1 about here

Table 2 presents descriptive statistics for the main dependent variable that we use in our analysis, EPS TargetWeight. As previously described, this is a metric for the weight that EPS-based targets receive in an executive pay contract. The results shown in Table 2 confirm those in Table 1. There is a statistically significant negative difference at the 1% level between the post and pre-IFRS mean EPS TargetWeights

for all firms in both the pooled and balanced sample. This negative result is evident in all industries (with the exception of textiles/trade).

For financial firms, the change in our constructed variable is negative and statistically significant at the 5% level. This result is consistent with what we would expect, since the industry has been highly affected by the switch to IFRS and FVA. Moreover, there is a significant decrease for firms in the basic industry group at the 5% level. This decrease is driven by chemical and pharmaceutical firms that are part of this group (SIC code 28). Mainly due to IAS 38, these R&D-intensive firms are affected by the introduction of IFRS and their earnings are expected to be higher and more volatile (Horton and Serafeim 2010). This increased volatility could potentially lead to a rise in the signal to noise ratios of accounting-based performance measures and thus make them less useful for evaluating managers. Table 2 also reports a statistically significant decrease for the capital goods industry at the 10% level. The explanation here is similar. This decrease is driven by R&D-intensive firms that construct electronic and computer equipment (SIC codes 35 and 36). Therefore, the effect of IFRS is similar to that on chemical and pharmaceutical firms.

We need to point out that we do not include in our analysis firms that do not use any performance measures for their managers. However, even if we modify the calculation of our metric and assign firms with no performance measures the value zero our results remain qualitatively the same (untabulated results).

Insert Table 2 about here

4.1.2. Other Variables

Table 3 reports descriptive statistics for the variables we use in the multivariate analysis. Panel A refers to all firm-years in the sample, while in Panels B and C we split the sample into pre- and post-IFRS periods, respectively. We observe an increase in firm size between these two periods, while average stock returns are higher pre-IFRS, which is likely to be related to the recent financial crisis. More firms make use of compensation consultants in the post-IFRS period, whereas the use of a "Big Five" auditor is almost the same in both periods. No variable shows any sign of high skewness or kurtosis after winsorization.

Insert Table 3 about here

Table 4 presents the pairwise correlations between the main variables we use in our models. As in Table 3, we split the whole sample into pre- and post-IFRS periods, reported in panels B and C respectively. In Panel A, the negative and significant correlation between EPS TargetWeight and IFRS is an initial indication of the inverse relation between the introduction of IFRS and the weight that accounting-related performance measures receive, which is consistent with Hypothesis 1. Consistent with the results from the previous table, the IFRS dummy and stock returns are negatively correlated, while PPE to Market Value has a negative correlation with the IFRS dummy, which is likely to be related to the wider use of FVA for firms' assets and the financial crisis that led to a decrease in their market values.

Insert Table 4 about here

4.2. Main results

Table 5 reports the results of the main rank-ordered logit models, described in equation 1. Column 1 presents the results of the main model, without any interactions involved, where we observe that the coefficient of the main independent variable, the IFRS dummy, is negative and statistically significant at the 1% level. We point out the use of year dummies for each of the firm-years included in the sample (2002 to 2009) which ensures the IFRS effect is above and beyond unidentified market-wide effects.[1] This result confirms Hypothesis 1 and shows that there is a decrease in the weight placed on accounting-based measures by UK firms, as also indicated in Tables 1, 2 and 4, post-IFRS. Consistent with prior literature, larger and more levered firms and firms with higher growth opportunities place less weight on accounting-based figures. Interestingly, compensation consultants favor the use of market-based performance measures over accounting-based ones.

Contrary to the predictions of Lambert and Larcker (1987), firms with a higher asset growth rate place a higher weight on accounting based figures. This could be explained by the fact that high asset growth rates are predictors of strong abnormal stock returns (Cooper et al. 2008). Therefore, this can potentially decrease the signal to noise ratios of market-based performance measures in relation to managers' actions and this can make them less attractive to firms. Moreover, Table 5 shows that firms with more assets in place make more use of market-based figures, a result that is not

[1] Stata drops two year indicator variables (one pre- and one post-IFRS) to avoid perfect collinearity. Our results are not sensitive to manually dropping specific year indicator variables.

consistent with the predictions of Skinner (1993). This could be explained by the fact that firms with more assets have lower stock risk (Chung and Charoenwong 1991) and potentially less "noise" in their stock returns.

In the remaining columns of Table 5, we use interactive terms between specific firm characteristics and the IFRS indicator variable. Column 3 reports that the interactive term between R&D and IFRS is negative and statistically significant at the 1% level. Similarly, the interactive term for the MTBV is negative and significant at the 10% level. This shows that firms with higher growth opportunities are more likely to decrease the weight placed on EPS-based performance measures post-IFRS. This is consistent with the results of previous studies which show that IFRS have a positive effect on investment efficiency and firms' growth opportunities (Schleicher et al. 2010). Therefore, accounting-based measures are less relevant for contracting purposes post-IFRS for these firms.

Insert Table 5 about here

Although we have shown that IFRS have a negative effect on the weight placed on accounting-based performance measures, we need to investigate whether specific earnings properties, which the literature shows as changing after the introduction of IFRS, make EPS-based performance measures less preferable to firms. Table 6 shows the results of the model described in equation 4, where the main independent variable is the ratio of the variability of the change in net income over the change in cash flows, as calculated from equations 2 and 3. As mentioned above, prior studies (Barth et al. 2008) use this variable as a measure of accounting quality.

Column 1 in Table 6 shows a negative relationship between the ratio and the weight placed on accounting-based figures. From an optimal contracting perspective, this indicates that an increase in the variability of net income over cash flows might be a positive result for valuation purposes (being an indication of more value-relevant earnings figures) but this could also decrease the signal to noise ratio of accounting earnings in relation to managers' actions. This would make earnings figures less informative about managerial performance and thus lead to a decrease in the weight they receive in executive pay contracts. We then split the sample into pre- and post-IFRS firm-years in columns 2 and 3 respectively, where we observe that the negative effect of the variability ratio is higher in the post-IFRS period and that the negative difference is statistically significant at the 5% level. This indicates that the signal to noise ratio of accounting earnings is lower in the post-IFRS period and the weight placed on the use of EPS figures as a performance measure is lower compared to during the pre-IFRS period. The results from Table 6 thus further confirm Hypothesis 1.

Insert Table 6 about here

The literature so far is inconclusive on the effect that IFRS have on earnings properties for mandatory adopters such as UK firms. Showing that financial reporting quality for firm valuation purposes increases in the UK, post-IFRS, would add to the validity of our previous results. We thus follow the methodology in Barth et al. (2008) and Christensen et al. (2008) and calculate metrics for earnings management and timelier

loss recognition, pre- and post-IFRS. In Appendix A, we explain the methodology we follow to calculate each metric.

The results in Table 7 show strong indications of less earnings management and timelier loss recognition, which imply that earnings become more informative for valuation purposes, post-IFRS. In particular, there is a statistically significant positive difference at the 1% level in the variability of changes in net income over changes in cash flows, and firms are less likely to report small positive earnings post-IFRS, both of which indicate less earnings management (i.e., earnings smoothing) since the introduction of IFRS.

To define the levels of significance for all variability measures, following Barth et al. (2008), we apply a t-test based on the empirical distribution of the difference between the post-IFRS and pre-IFRS values, for each metric. To obtain the distribution, we randomly select firm observations with replacement and calculate the differences. This process is run 1,000 times. Firms are more likely to report large losses post-IFRS, a sign of timelier loss recognition. On the other hand, we show no strong changes in the correlation between cash flows and accruals and that the variability in net income slightly decreases. However, we believe that our results generally indicate that UK firms report more volatile and timelier accounting earnings post-IFRS. These results point towards an increase in accounting quality for valuation purposes post-IFRS, but also to an increase in the volatility of earnings.

Insert Table 7 about here

5. Further Analyses and Robustness Checks

5.1. Financial Firms as an Important Special Case

Following the approach of Daske et al. (2008) and Li (2010), we consider financial firms as a treatment sample for which we expect the effect of IFRS on the use of accounting-based performance measures to be more pronounced. We then compare them to a control group of firms for which we believe the IFRS effect should not be so strong, and thus should respond less to the "treatment". We choose the service sector as the control group, as the industry does not seem to be seriously affected by IFRS and FVA (Cairns 2006; Barth 2004) and its sample size is similar to that of financial firms. We first run a difference-in-differences estimation for these two industries. We run this test to minimize the possibility of other unidentified confounding factors, for example, macroeconomic business cycles, driving our results. We thus run the following model for the two groups:

$$\begin{aligned} EPS\ \ Target\ \ Weight\,(0,1,2)_{i,t} = {} & b_0 + b_1 IFRS\,(0,1)_{it} + b_2 FINANCE_i + b_3 IFRS_{it} * FINANCE_i + \\ & b_4 OTHER\,CONTROL\,VARIABLES_{it} + \varepsilon_{it} \end{aligned} \qquad (5)$$

FINANCE is an indicator variable that takes the value one when the firm belongs to the financial industry and zero when it is a service sector firm. The remaining control variables are those used in our previous models. The coefficient of interest is b_3. Table 8 reports the results of our difference-in-differences estimation. Column 1 shows that the coefficient of the interactive term between the FINANCE and IFRS indicator variables is statistically significant at the 5% level. This is a strong indication that, for

the “treatment” sample of financial firms, the effect of IFRS is, as we would expect, more pronounced than for the control group of service sector firms.

We also run equation (1a**)** for both groups of firms. Table 8 reports a more negative and stronger effect of IFRS on the weight given to accounting-based performance measures by financial firms (column 3) than the corresponding effect on service sector firms (column 2). Moreover, column 4 shows that this difference is statistically significant at the 1% level. Table 8 thus indicates that the effect of IFRS on the structure of executive pay contacts, that is, the use of accounting-based performance measures, is more pronounced in firms that have been more strongly affected by the introduction of IFRS and the use of FVA.

Insert Table 8 about here

5.2. Further Robustness Checks

By definition, the main dependent variable, EPS TargetWeight, and therefore the models we run in Tables 5 and 6, exclude firms that do not use any performance measures for their managers. To avoid any potential sample selection bias, we modify EPS TargetWeight and assign firms with no performance measures the value zero. However, their inclusion or exclusion does not affect our results (unreported results). Moreover, in Table 6, we make use of one metric of accounting quality, DNI*/DCF*, to show the effect of specific earnings properties on the weight given to EPS performance measures and whether IFRS has an important effect on this. We find this

metric to be the most accurate, since it involves two measures of profitability, namely net income and cash flows. In Appendix A, we present the results of similar models that we run using other measures of accounting quality: variability in the change in net income, correlation between accruals and cash flows, recognition of small positive earnings and the reporting of large losses. The results that we report are, in most cases, consistent with the results in Table 6.

We show that firms decrease the weight given to EPS performance measures in executive pay contracts, post-IFRS. This happens despite the fact that accounting quality increases in the UK after the introduction of IFRS. We take an optimal contracting approach to explain these results and we claim that this is due to the fact that, although IFRS make earnings more informative for valuation purposes, they do not for contracting purposes. However, we acknowledge the possibility that there is an alternative explanation for our results, other than the optimal contracting explanation.

It is conceivable that powerful managers may have used their influence to reduce the dependence of their pay on more informative measures like post-IFRS earnings. This is an explanation consistent with the predictions of managerial power theory, as developed by Bebchuk et al. (2002). Nevertheless, we believe that this is unlikely to happen in a systematic way, given that our sample is large enough to capture a significant percentage of the biggest firms in the UK market. Moreover, the majority of the remaining results is consistent with theoretical predictions and point towards an optimal choice of performance measures. We are still cautious, though, about inferring any strict causality between the introduction of IFRS and the increase in the inherent "noise" in accounting earnings in relation to managers' actions.

One way to address this issue would be to calculate the inherent "noise" of accounting earnings pre- and post-IFRS. Ittner et al. (1997) use, as a proxy for the exogenous noise in firms' financial performing measures, the time series variability in median industry accounting returns and, more precisely, a five-year standard deviation in the median annual Return-on-Assets (ROA) and Return-on-Equity (ROE) based on a three-digit SIC classification. We calculate the standard deviations pre- and post-IFRS so, in this case, our time series is about four years long, depending on the IFRS adoption date. We also use a three-digit SIC classification to calculate the standard deviations for all firms in the sample; we apply a four-digit classification when we move to industry level, in order to achieve a higher degree of variation. Ittner et al. (1997) assume that the noise in these measures is an increasing function of the variance in the industry financial performance measures.

Table 9 reports the results of these tests. The standard deviations of the median annual ROA and ROE increase post-IFRS and this difference is significant at the 1% level. Based on Ittner et al. (1997), this result indicates that the inherent "noise" in financial performance measures increases after the introduction of IFRS. This also implies that the signal to noise ratio of accounting earnings in relation to a manager's performance decreases post-IFRS and accounting earnings thus become less useful for managerial performance evaluation purposes. Interestingly, Table 9 also reports a statistically significant increase in the variation of ROA and ROE in those industries that significantly decrease the weight given to accounting-based performance measures for management evaluation, that is, the financial, basic, and capital goods industries. This is another indication that the inherent noise in accounting earnings primarily increases

for these firms due to IFRS and this causes their accounting measures to become less useful for contracting purposes.

Insert Table 9 about here

6. Conclusion

In this study, we extend the existing literature on the introduction of IFRS by investigating their consequences for executive pay practices. By making use of an extensive sample of UK firms, we show that firms place less weight on EPS-based performance measures in management compensation contracts, post-IFRS. This decrease in the use of EPS-based performance measures is also associated with specific earnings properties that previous studies show to be affected by the introduction of IFRS. This happens despite the fact that we find strong signs of an improvement in accounting quality in the UK since IFRS adoption. We take an optimal contracting approach to explain our results and argue that, although the introduction of IFRS might be beneficial for firm valuation, it may not be for contracting purposes. We are very cautious about inferring strict causality in this phenomenon, since there might be an alternative explanation for our results, based on "managerial power". We are also aware that our results may be driven by other unidentified confounding effects that we are unable to capture in our models. We run a number of robustness checks to alleviate these concerns and show that our findings are consistent with an IFRS effect.

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TABLE 1

Performance Target Choice Pre and Post-IFRS per Industry

The table presents descriptive statistics for the Performance Target choices in CEO pay contracts per industry and for all firms in the sample, pre and post-IFRS. Columns 1 and 2 include absolute values and percentages of firms that have adopted exclusively accounting-related targets, columns 3 and 4 firms that use market-related targets only, columns 5 and 6 show those that use a combination of accounting and market-based performance targets and columns 7 and 8 show figures for firms that do not use performance targets.

Panel A: Pooled Sample

		Accounting-Based		Market-Based		Both		No targets		Total
		N.Obs	%	N.Obs	%	N.Obs	%	N.Obs	%	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Firms	**Pre-IFRS**	444	36.57	238	19.60	334	27.51	198	16.31	1214
	Post-IFRS	416	23.24	413	23.07	771	43.07	190	10.61	1790
Petroleum	**Pre-IFRS**	3	8.11	20	54.05	7	18.92	7	18.92	37
	Post-IFRS	3	4.23	41	57.75	22	30.99	5	7.04	71
Finance/Real estate	**Pre-IFRS**	101	40.40	55	22.00	38	15.20	56	22.40	250
	Post-IFRS	94	25.97	78	21.55	125	34.53	65	17.96	362
Consumer Durables	**Pre-IFRS**	58	40.28	25	17.36	40	27.78	21	14.58	144
	Post-IFRS	52	24.64	34	16.11	98	46.45	27	12.80	211
Basic Industry	**Pre-IFRS**	27	27.00	32	32.00	22	22.00	19	19.00	100
	Post-IFRS	29	17.16	77	45.56	50	29.59	13	7.69	169
Food/Tobacco	**Pre-IFRS**	14	19.72	8	11.27	35	49.30	14	19.72	71
	Post-IFRS	13	13.54	19	19.79	53	55.21	11	11.46	96
Construction	**Pre-IFRS**	30	42.25	18	25.35	15	21.13	8	11.27	71
	Post-IFRS	38	35.85	15	14.15	48	45.28	5	4.72	106
Capital Goods	**Pre-IFRS**	32	37.65	16	18.82	22	25.88	15	17.65	85
	Post-IFRS	28	23.93	33	28.21	45	38.46	11	9.40	117
Transportation	**Pre-IFRS**	19	38.78	5	10.20	16	32.65	9	18.37	49
	Post-IFRS	15	23.08	10	15.38	38	58.46	2	3.08	65
Utilities	**Pre-IFRS**	10	18.52	20	37.04	21	38.89	3	5.56	54
	Post-IFRS	4	4.94	28	34.57	43	53.09	6	7.41	81
Textiles/Trade	**Pre-IFRS**	34	64.15	5	9.43	10	18.87	4	7.55	53
	Post-IFRS	25	37.88	5	7.58	29	43.94	7	10.61	66
Services	**Pre-IFRS**	76	39.18	18	9.28	68	35.05	32	16.49	194
	Post-IFRS	83	28.14	48	16.27	138	46.78	26	8.81	295
Leisure	**Pre-IFRS**	40	37.74	16	15.09	40	37.74	10	9.43	106
	Post-IFRS	32	21.19	25	16.56	82	54.30	12	7.95	151

Panel B: Balanced Sample

		Accounting-Based		Market-Based		Both		No targets		Total
		N.Obs	%	N.Obs	%	N.Obs	%	N.Obs	%	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Firms	**Pre-IFRS**	271	36.23	154	20.59	203	27.14	120	16.04	748
	Post-IFRS	242	24.40	223	22.48	435	43.85	92	9.27	992
Petroleum	**Pre-IFRS**	3	11.11	17	62.96	6	22.22	1	3.70	27
	Post-IFRS	2	4.76	24	57.14	16	38.10	0	0.00	42
Finance/Real estate	**Pre-IFRS**	55	39.57	31	22.30	23	16.55	30	21.58	139
	Post-IFRS	53	28.96	38	20.77	69	37.70	23	12.57	183
Consumer Durables	**Pre-IFRS**	30	35.71	16	19.05	20	23.81	18	21.43	84
	Post-IFRS	25	22.94	14	12.84	53	48.62	17	15.60	109
Basic Industry	**Pre-IFRS**	21	30.43	18	26.09	16	23.19	14	20.29	69
	Post-IFRS	17	18.89	33	36.67	33	36.67	7	7.78	90
Food/Tobacco	**Pre-IFRS**	11	22.45	5	10.20	21	42.86	12	24.49	49
	Post-IFRS	10	16.95	11	18.64	29	49.15	9	15.25	59
Construction	**Pre-IFRS**	25	40.32	14	22.58	15	24.19	8	12.90	62
	Post-IFRS	35	39.33	8	8.99	41	46.07	5	5.62	89
Capital Goods	**Pre-IFRS**	21	41.18	10	19.61	8	15.69	12	23.53	51
	Post-IFRS	15	21.43	25	35.71	22	31.43	8	11.43	70
Transportation	**Pre-IFRS**	10	32.26	4	12.90	13	41.94	4	12.90	31
	Post-IFRS	7	16.28	9	20.93	25	58.14	2	4.65	43
Utilities	**Pre-IFRS**	7	18.92	12	32.43	16	43.24	2	5.41	37
	Post-IFRS	0	0.00	17	39.53	22	51.16	4	9.30	43
Textiles/Trade	**Pre-IFRS**	13	61.90	0	0.00	6	28.57	2	9.52	21
	Post-IFRS	13	50.00	1	3.85	11	42.31	1	3.85	26
Services	**Pre-IFRS**	44	45.36	11	11.34	33	34.02	9	9.28	97
	Post-IFRS	45	33.09	22	16.18	62	45.59	7	5.15	136
Leisure	**Pre-IFRS**	31	38.27	16	19.75	26	32.10	8	9.88	81
	Post-IFRS	20	19.61	21	20.59	52	50.98	9	8.82	102

TABLE 2
EPS TargetWeight Statistics

This table presents descriptive statistics on the EPS TargetWeight variable per industry and for all firms in the sample pre and post-IFRS. EPS TargetWeight takes the value zero when the firm makes use of a market-based performance target, one when the firm uses an EPS target combined with a market-related target, and two when the firm makes use of an EPS target exclusively. The significance levels for the differences reported are at the 1% (***), 5%(**) and 10% (*) levels.

Panel A: Pooled Sample

		EPS TARGETWEIGHT							
		Mean	Difference	Signif.	StD	Median	Skewness	Kurtosis	N.Obs
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
All Firms	**Pre-IFRS**	0.958			0.897	1.000	0.083	1.248	1016
	Post-IFRS	0.828	-0.129	***	0.779	1.000	0.309	1.707	1602
Petroleum	**Pre-IFRS**	0.233			0.504	0.000	2.044	6.379	30
	Post-IFRS	0.205	-0.028		0.442	0.000	1.962	6.019	67
Finance/Real estate	**Pre-IFRS**	0.859			0.943	0.000	0.387	1.240	194
	Post-IFRS	0.722	-0.137	**	0.846	0.000	0.559	1.628	296
Consumer Durables	**Pre-IFRS**	1.065			0.924	1.000	-0.130	1.191	122
	Post-IFRS	0.956	-0.109		0.757	1.000	0.071	1.753	188
Basic Industry	**Pre-IFRS**	0.875			0.891	1.000	0.246	1.319	80
	Post-IFRS	0.566	-0.309	**	0.753	0.000	0.899	2.331	157
Food/Tobacco	**Pre-IFRS**	0.844			0.767	1.000	0.268	1.765	58
	Post-IFRS	0.715	-0.129		0.710	1.000	0.465	2.080	87
Construction	**Pre-IFRS**	1.031			0.966	1.000	-0.063	1.090	63
	Post-IFRS	1.020	-0.011		0.803	1.000	-0.035	1.564	100
Capital Goods	**Pre-IFRS**	1.142			0.856	1.000	-0.276	1.438	70
	Post-IFRS	0.942	-0.200	*	0.769	1.000	0.097	1.708	104
Transportation	**Pre-IFRS**	0.925			0.944	1.000	0.149	1.166	40
	Post-IFRS	0.733	-0.192		0.685	1.000	0.388	2.159	60
Utilities	**Pre-IFRS**	0.686			0.761	1.000	0.588	1.974	51
	Post-IFRS	0.594	-0.092		0.594	1.000	0.416	2.308	74
Textiles/Trade	**Pre-IFRS**	1.160			0.976	2.000	-0.323	1.148	50
	Post-IFRS	1.203	0.043		0.760	1.000	-0.354	1.826	59
Services	**Pre-IFRS**	1.148			0.835	1.000	-0.282	1.496	162
	Post-IFRS	1.055	-0.093		0.737	1.000	-0.087	1.849	270
Leisure	**Pre-IFRS**	1.031			0.851	1.000	-0.059	1.395	96
	Post-IFRS	0.892	-0.139		0.726	1.000	0.164	1.915	140

Panel B: Balanced Sample

		EPS TARGET WEIGHT]							
		Mean	Difference	Signif.	StD	Median	Skewness	Kurtosis	N.Obs
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
All Firms	**Pre-IFRS**	0.944			0.905	1.000	0.110	1.233	607
	Post-IFRS	0.821	-0.123	***	0.789	1.000	0.327	1.678	868
Petroleum	**Pre-IFRS**	0.230			0.514	0.000	2.127	6.688	26
	Post-IFRS	0.204	-0.026		0.408	0.000	1.464	3.146	44
Finance/Real estate	**Pre-IFRS**	0.675			0.915	0.000	0.683	1.554	108
	Post-IFRS	0.581	-0.094	**	0.856	0.000	0.660	1.691	160
Consumer Durables	**Pre-IFRS**	1.046			0.925	1.000	-0.091	1.190	65
	Post-IFRS	0.956	-0.090		0.735	1.000	0.066	1.867	93
Basic Industry	**Pre-IFRS**	0.981			0.900	1.000	0.036	1.257	54
	Post-IFRS	0.674	-0.307	***	0.782	0.000	0.636	1.926	83
Food/Tobacco	**Pre-IFRS**	0.815			0.833	1.000	0.352	1.564	38
	Post-IFRS	0.679	-0.136		0.778	0.000	0.620	1.935	53
Construction	**Pre-IFRS**	1.018			0.961	1.000	-0.036	1.103	54
	Post-IFRS	1.083	0.065		0.809	1.000	-0.151	1.558	84
Capital Goods	**Pre-IFRS**	1.230			0.872	2.000	-0.461	1.504	39
	Post-IFRS	0.819	-0.411	*	0.785	1.000	0.325	1.713	61
Transportation	**Pre-IFRS**	0.888			0.933	1.000	0.221	1.227	27
	Post-IFRS	0.615	-0.273		0.633	1.000	0.503	2.353	39
Utilities	**Pre-IFRS**	0.742			0.780	1.000	0.474	1.832	35
	Post-IFRS	0.512	-0.230		0.506	1.000	-0.051	1.002	39
Textiles/Trade	**Pre-IFRS**	1.050			0.998	1.500	-0.100	1.062	20
	Post-IFRS	1.240	0.190		0.879	2.000	-0.482	1.517	25
Services	**Pre-IFRS**	1.181			0.864	1.000	-0.357	1.444	88
	Post-IFRS	1.109	-0.072		0.755	1.000	-0.182	1.782	128
Leisure	**Pre-IFRS**	1.000			0.881	1.000	0.000	1.303	73
	Post-IFRS	0.870	-0.130	*	0.725	1.000	0.198	1.930	93

TABLE 3
Descriptive Statistics

This table presents descriptive statistics for the basic variables we use in our models. SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen, and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; MTBV is the firm's stock market to book value ratio; ASSETS GROWTH is the percentage change in the firm's total assets during the year; SALES GROWTH is the percentage change in the firm's net sales.

Panel A: All firms years

	Mean	Stand.Dev.	Median	Skewness	Kurtosis	Min	Max
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SIZE	6.463	1.589	6.329	0.392	2.383	3.840	9.737
RET	10.932	45.182	8.381	0.498	2.984	-65.012	117.479
LEV	22.870	17.458	21.255	0.429	2.197	0.000	58.314
VOL	28.255	13.191	28.693	-0.450	3.114	0.000	52.258
CONSULT	0.792	0.406	1.000	-1.436	3.062	0.000	1.000
AUD	0.951	0.216	1.000	-4.186	18.520	0.000	1.000
SEGMENTS	3.366	2.011	3.000	0.765	2.706	1.000	8.000
PPE	0.458	0.614	0.183	1.773	5.196	0.006	2.287
R&D	1.488	3.586	0.000	2.670	8.941	0.000	13.902
MTBV	2.718	2.200	2.052	1.417	4.301	0.339	8.765
ASSETS GROWTH	11.069	21.817	7.048	0.968	3.665	-22.355	67.343
SALES GROWTH	11.691	18.483	8.578	0.852	3.581	-18.426	58.681

Panel B: Pre-IFRS

	Mean	Stand.Dev.	Median	Skewness	Kurtosis	Min	Max
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SIZE	6.301	1.593	6.071	0.505	2.431	3.840	9.737
RET	16.518	42.657	11.890	0.510	3.178	-65.012	117.479
LEV	22.976	17.153	21.169	0.403	2.179	0.000	58.314
VOL	28.182	14.359	28.541	-0.408	2.747	0.000	52.258
CONSULT	0.720	0.449	1.000	-0.983	1.965	0.000	1.000
AUD	0.950	0.218	1.000	-4.120	17.974	0.000	1.000
SEGMENTS	3.417	2.016	3.000	0.735	2.650	1.000	8.000
PPE	0.505	0.641	0.206	1.582	4.431	0.006	2.287
R&D	1.461	3.479	0.000	2.686	9.208	0.000	13.902
MTBV	2.618	2.178	1.944	1.580	4.720	0.339	8.765
ASSETS GROWTH	8.342	19.833	4.739	1.315	4.997	-22.355	67.343
SALES GROWTH	9.710	18.414	5.971	1.049	3.983	-18.426	58.681

Panel C: Post-IFRS

	Mean	Stand.Dev.	Median	Skewness	Kurtosis	Min	Max
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SIZE	6.566	1.576	6.499	0.330	2.389	3.840	9.737
RET	7.364	46.398	5.672	0.538	2.914	-65.012	117.479
LEV	22.789	17.639	21.272	0.444	2.207	0.000	58.314
VOL	28.293	12.389	28.732	-0.483	3.394	0.000	52.258
CONSULT	0.836	0.370	1.000	-1.819	4.310	0.000	1.000
AUD	0.953	0.213	1.000	-4.258	19.129	0.000	1.000
SEGMENTS	3.332	2.005	3.000	0.784	2.745	1.000	8.000
PPE	0.428	0.595	0.166	1.910	5.805	0.006	2.287
R&D	1.504	3.654	0.000	2.657	8.762	0.000	13.902
MTBV	2.782	2.212	2.164	1.320	4.072	0.339	8.765
ASSETS GROWTH	12.815	22.821	8.841	0.781	3.147	-22.355	67.343
SALES GROWTH	12.914	18.409	10.366	0.745	3.435	-18.426	58.681

TABLE 4
Correlation Matrix

This table presents the correlations between the main variables that we use in the models. EPS TargetWeight takes the value zero when the firm makes use of a market-based performance target, one when the firm uses an EPS target combined with a market-related target and two when the firm makes use of an EPS target exclusively. SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen, and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; MTBV is the firm's stock market to book value ratio; ASSETS GROWTH is the percentage change in the firm's total assets during the year; SALES GROWTH is the percentage change in the firm's net sales. The significance levels reported (figures in bold) are at the 1% (***), 5%(**) and 10% (*) levels.

Panel A: All firm years

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	**EPS TARGETWEIGHT**	1.000													
2	**IFRS**	**-0.076*****	1.000												
3	**SIZE**	**-0.156*****	**0.081*****	1.000											
4	**RET**	0.001	**-0.098*****	**0.098*****	1.000										
5	**LEV**	**-0.078*****	-0.005	**0.138*****	**-0.106*****	1.000									
6	**VOL**	0.007	0.004	**-0.190*****	**0.036***	**-0.115*****	1.000								
7	**CONSULT**	**-0.120*****	**0.139*****	**0.212*****	**-0.046****	**0.095*****	**-0.054*****	1.000							
8	**AUD**	**-0.041****	0.006	**0.214*****	-0.015	**0.060*****	**-0.073*****	**0.132*****	1.000						
9	**SEGMENTS**	0.000	-0.020	**0.235*****	-0.002	0.008	**0.032***	**0.116*****	**0.097*****	1.000					
10	**PPE**	**-0.078*****	**-0.061****	**-0.098*****	**-0.170*****	**0.439*****	**-0.034***	0.031	**0.033***	**-0.059*****	1.000				
11	**R&D**	**-0.046****	0.005	**-0.093*****	0.010	**-0.216*****	**0.190*****	**-0.035**	-0.014	**-0.086*****	**-0.205*****	1.000			
12	**MTBV**	0.007	**0.036***	**0.220*****	**0.206*****	**-0.023**	**-0.105*****	-0.022	**0.036***	-0.026	**-0.317*****	**0.161*****	1.000		
13	**ASSETS GROWTH**	**0.035***	**0.099*****	**0.059****	**0.110*****	-0.018	**-0.101*****	**-0.047**	-0.012	**-0.054*****	**-0.133*****	0.015	**0.092*****	1.000	
14	**SALES GROWTH**	-0.006	**0.084*****	0.006	**0.081*****	-0.020	**-0.092*****	**-0.059**	-0.018	**-0.082*****	**-0.090*****	**0.043****	**0.101*****	**0.519*****	1.000

Panel B: Pre-IFRS

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	**EPS TARGETWEIGHT**	1.000												
2	**SIZE**	**-0.175*****	1.000											
3	**RET**	0.000	-0.032	1.000										
4	**LEV**	**-0.089*****	**0.215*****	**-0.063****	1.000									
5	**VOL**	-0.037	**-0.073****	**0.076****	**-0.103*****	1.000								
6	**CONSULT**	**-0.129*****	**0.276*****	-0.041	0.037	-0.033	1.000							
7	**AUD**	-0.051	**0.234*****	-0.020	**0.065****	-0.047	**0.118*****	1.000						
8	**SEGMENTS**	0.016	**0.221*****	-0.024	0.020	**0.075****	**0.122*****	**0.110*****	1.000					
9	**PPE**	**-0.074****	**-0.053***	**-0.098*********	**0.437*****	**-0.125*****	0.018	0.018	**-0.077****	1.000				
10	**R&D**	-0.024	**-0.120*****	0.019	**-0.214*****	**0.267*****	-0.042	-0.039	**-0.079****	**-0.218*****	1.000			
11	**MTBV**	-0.013	**0.169*****	**0.124*****	-0.044	-0.000	**-0.055***	0.033	-0.041	**-0.330*****	**0.181*****	1.000		
12	**ASSETS GROWTH**	0.025	**-0.053***	**0.203*****	-0.031	**-0.138*****	**-0.098*****	-0.012	**-0.104*****	**-0.101*****	0.031	**0.067****	1.000	
13	**SALES GROWTH**	-0.016	**-0.064****	**0.122*****	-0.042	**-0.145*****	**-0.073****	-0.048	**-0.117*****	**-0.072****	0.035	**0.083*****	**0.558*****	1.000

Panel C: Post-IFRS

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	**EPS TARGETWEIGHT**	1.000												
2	**SIZE**	**-0.130*****	1.000											
3	**RET**	-0.012	**0.189*****	1.000										
4	**LEV**	**-0.074****	**0.095*****	**-0.133*****	1.000									
5	**VOL**	**0.043***	**-0.277*****	0.011	**-0.127*****	1.000								
6	**CONSULT**	**-0.095*****	**0.149*****	-0.027	**0.141*****	**-0.075*****	1.000							
7	**AUD**	-0.030	**0.199*****	-0.009	**0.064****	**-0.087*****	**0.147*****	1.000						
8	**SEGMENTS**	-0.012	**0.246*****	0.007	0.003	**0.003**	**0.120*****	**0.088*****	1.000					
9	**PPE**	**-0.090*****	**-0.122*****	**-0.228*****	**0.444*****	0.039	**0.059****	**0.042***	**-0.050****	1.000				
10	**R&D**	**-0.062**	**-0.077*****	0.006	**-0.219*****	**0.138*****	-0.033	0.002	**-0.089*****	**-0.198*****	1.000			
11	**MTBV**	**0.027**	**0.249*****	**0.262*****	-0.008	**-0.182*****	-0.007	0.034	-0.016	**-0.307*****	**0.149*****	1.000		
12	**ASSETS GROWTH**	**0.056****	**0.109*****	**0.081*****	-0.009	**-0.079*****	-0.040	-0.017	-0.025	**-0.146*****	0.007	**0.101*****	1.000	
13	**SALES GROWTH**	0.010	**0.041***	**0.070*****	-0.009	**-0.057****	**-0.071*****	0.005	**-0.058****	**-0.094*****	**0.047***	**0.110*****	**0.495*****	1.000

TABLE 5
Rank-Ordered Logit on the Firm's EPS TargetWeight Choice

This table presents odds ratios for different Rank-Ordered Logit Models on the firm's choice of EPS performance mix. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when the firm uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; MTBV is the firm's stock market to book value ratio; ASSETS GROWTH is the percentage change in the firm's total assets over the year; SALES GROWTH is the percentage change in the firm's net sales. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
IFRS	**-0.630*** **	**-0.632*** **	**-0.663*** **	**-0.632*** **	**-0.630*** **	**-0.608*** **
	(-3.07)	**(-3.05)**	**(-2.72)**	**(-3.05)**	**(-3.07)**	**(-3.22)**
SIZE	**-0.893*** **	**-0.893*** **	**-0.882*** **	**-0.892*** **	**-0.893*** **	**-0.891*** **
	(-3.79)	**(-3.80)**	**(-4.19)**	**(-3.83)**	**(-3.80)**	**(-3.84)**
RET	1.000	1.000	-0.999	1.000	1.000	1.000
	(0.14)	(0.13)	(-0.03)	(0.11)	(0.14)	(0.16)
LEV	**-0.992*** **	**-0.992*** **	**-0.992*** **	**-0.992*** **	**-0.992*** **	**-0.992*** **
	(-2.70)	**(-2.71)**	**(-2.69)**	**(-2.74)**	**(-2.68)**	**(-2.71)**
VOL	-0.997	-0.997	-0.997	-0.997	-0.997	-0.997
	(-0.75)	(-0.74)	(-0.79)	(-0.71)	(-0.77)	(-0.80)
CONSULT	**-0.667*** **	**-0.666*** **	**-0.664*** **	**-0.667*** **	**-0.666*** **	**-0.668*** **
	(-3.57)	**(-3.57)**	**(-3.58)**	**(-3.57)**	**(-3.58)**	**(-3.56)**
AUD	1.106	1.107	1.146	1.105	1.106	1.101
	(0.50)	(0.51)	(0.68)	(0.50)	(0.50)	(0.48)
SEGMENTS	1.013	1.013	1.009	1.014	1.013	1.013
	(0.66)	(0.67	(0.47)	(0.70)	(0.67)	(0.65)
PPE	**-0.786*** **	**-0.790*** **	**-0.779*** **	**-0.790*** **	**-0.786*** **	**-0.786*** **
	(-3.16)	**(-3.00)**	**(-3.26)**	**(-3.09)**	**(-3.16)**	**(-3.16)**
R&D	**-0.941*** **	**-0.941*** **	**-0.970** **	**-0.941*** **	**-0.941*** **	**-0.941*** **
	(-4.77)	**(-4.77)**	**(-1.99)**	**(-4.80)**	**(-4.76)**	**(-4.76)**
MTBV	1.011	1.011	1.011	1.017	1.011	1.011
	(0.59)	(0.60)	(0.60)	(0.84)	(0.58)	(0.59)
ASSETS GROWTH	**1.007*** **	**1.006*** **	**1.006*** **	**1.007*** **	**1.006*** **	**1.006*** **
	(3.23)	**(3.21)**	**(2.99)**	**(3.23)**	**(3.12)**	**(3.21)**
SALES GROWTH	-0.997	-0.997	-0.997	-0.997	-0.997	-0.005
	(-1.04)	(-1.03)	(-0.96)	(-1.04)	(-1.03)	(-1.24)
PPE *IFRS		-0.996				
		(-0.33)				
R&D*IFRS			**-0.983*** **			
			(-3.17)			
MTBV*IFRS				**-0.998***		
				(-1.87)		
ASSETS GROWTH*IFRS					1.000	
					(0.48)	
SALES GROWTH*IFRS						1.004
						(0.88)

TABLE 5 (continued)

	EPS TARGETWEIGHT					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
IDUM	YES	YES	YES	YES	YES	YES
YEAR	YES	YES	YES	YES	YES	YES
Pseudo R-squared	0.060	0.060	0.065	0.060	0.060	0.060
Observations	2618	2618	2618	2618	2618	2618

TABLE 6
EPS TargetWeight choice and the Variability of Changes in Net Income over Changes in Cash Flows

This table reports the odds ratios of a rank-ordered logit model, as described in equation 4. DNI is the change in the firm's Net Income divided by Total Assets and DCF is the change in the firm's Cash Flows from operating activities divided by Total Assets. DNI* and DCF* are the variances of the residuals from the regressions described in equations 2 and 3 respectively. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when the firm uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; ASSETS GROWTH is the percentage change in the firm's total assets over the year. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT			
	All Firms	**Pre-IFRS**	**Post-IFRS**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
DNI*/DCF*	**-0.127*** **	**-0.095** **	**-0.121*** **	**-0.026** **
	(-2.89)	**(-2.52)**	**(-5.47)**	
SIZE	**-0.888*** **	**-0.858*** **	**-0.852*** **	
	(-3.97)	**(-3.08)**	**(-4.63)**	
RET	1.000	1.001	-0.998	
	(0.29)	(0.78)	(-0.85)	
LEV	**-0.995***	**-0.992***	1.001	
	(-1.81)	**(-1.70)**	(0.35)	
VOL	-0.998	**-0.990***	1.006	
	(-0.38)	**(-1.83)**	(1.42)	
CONSULT	**-0.673*** **	**-0.749***	**-0.686** **	
	(-3.45)	**(-1.81)**	**(-2.32)**	
AUD	-0.980	-0.970	1.077	
	(-0.10)	(-0.09)	(0.27)	
SEGMENTS	1.009	1.032	-0.997	
	(0.48)	(0.98)	(-0.11)	
PPE	**-0.810*** **	**-0.760** **	**-0.756*** **	
	(-2.74)	**(-2.21)**	**(-2.73)**	
R&D	**-0.946*** **	**-0.951** **	**-0.945*** **	
	(-4.48)	**(-2.20)**	**(-3.96)**	
ASSETS GROWTH	**1.007*** **	1.006	**1.007*** **	
	(3.57)	(1.58)	**(2.92)**	
SALES GROWTH	**-0.995***	-0.992	-0.996	
	(-1.67)	(-1.59)	(-1.18)	
IDUM	YES	YES	YES	
YEAR	YES	YES	YES	
Pseudo R-squared	0.061	0.063	0.060	
Observations	2618	1016	1602	

TABLE 7

Earnings Management and Timely Loss Recognition pre-and post-IFRS for UK firms

This table presents the results for firms in the UK, where IFRS adoption was made compulsory in 2005. DNI is the change in the firm's Net Income divided by Total Assets; DCF is the change in the firm's Cash Flows from operating activities divided by Total Assets; CF is the annual Cash Flows from operating activities divided by total assets; ACC is the difference between NI and CF. DNI*, DCF*, ACC* and CF* are the variances of the residuals from equations 2, 3, A.3 and A.2 respectively. SPOS is a dummy that takes the value one if net income scaled by total assets is between 0 and 0.01, and zero otherwise. For timely loss recognition we use LNEG, a dummy variable that takes the value one when annual net income divided by total assets is less than -0.20, and zero otherwise. The coefficients for SPOS and LNEG are taken from the logistic regressions described in equations A.5 and A.7 respectively. The significance levels for the differences reported are at the 1% (***), 5%(**) and 10% (*) levels.

	Observations		Pre-IFRS	Post-IFRS	Difference	Expected	Sign.
Earnings Management	**Pre-IFRS**	**Post-IFRS**	**(1)**	**(2)**	**(2)-(1)**	**Sign**	**Level**
Variability of DNI*	1214	1790	0.0052	0.0050	-0.0002	+	*
Variability of DNI* over DCF*	1214	1790	1.1521	1.2308	0.0787	+	***
Correlation between CF* and ACC*	1214	1790	-0.0475	-0.0418	0.0057	-	
Small Positive NI (SPOS)	3004		-0.3851			-	***
Timely Loss Recognition							
Large Negative NI (LNEG)	3004		0.8845			+	***

TABLE 8
Rank-Ordered Logit on the Firm's EPS TargetWeight Choice (treatment sample)

This table presents odds ratios for different Rank-Ordered Logit Models on the firm's choice of EPS performance mix, where we use financial firms as a treatment sample and service firms as a control sample. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; FINANCE takes the value one for financial firms and zero for service firms. SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; MTBV is the firm's stock market to book value ratio; ASSETS GROWTH is the percentage change in the firm's total assets during the year; SALES GROWTH is the percentage change in the firm's net sales. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT			
	Diff.-In.-Diff.	**SERVICES**	**FINANCE/R.ESTATE**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
IFRS	-0.629	-0.385	**-0.603*** **	**-0.218** **
	(-1.08)	(-1.59)	**(-2.87)**	
FINANCE	-0.835			
	(-0.92)			
IFRS*FINANCE	**-0.632** **			
	(-2.42)			
SIZE	**-0.823*** **	-0.927	**-0.754*** **	
	(-3.66)	(-0.91)	**(-3.59)**	
RET	-0.998	1.000	-0.998	
	(-0.90)	(0.14)	(-0.71)	
LEV	1.003	-0.999	1.005	
	(0.87)	(-0.12)	(0.96)	
VOL	1.005	-0.995	1.007	
	(0.99)	(-0.55)	(0.78)	
CONSULT	**-0.691** **	**-0.980***	**-0.590** **	
	(-1.98)	**(-1.67)**	**(-2.14)**	
AUD	1.190	-0.861	1.382	
	(0.60)	(-0.38)	(0.57)	
SEGMENTS	1.023	-0.987	1.090	
	(0.67)	(-0.27)	(1.39)	
PPE	**-0.578*** **	1.204	**-0.508*** **	
	(-4..38)	(0.87)	**(-3.72)**	
R&D	-0.971	-0.995	-0.000	
	(-1.33)	(-0.19)	(-0.91)	
MTBV	**1.090** **	-0.959	**1.506*** **	
	(2.36)	(-0.92)	**(4.61)**	
ASSETS GROWTH	**1.007** **	**1.008** **	**1.000***	
	(2.20)	**(1.99)**	**(1.74)**	
SALES GROWTH	-0.995	1.007	**-0.989** **	
	(-1.11)	(0.07)	**(-2.02)**	
YEAR	YES	YES	YES	
Pseudo R-squared	0.053	0.045	0.099	
Observations	922	432	490	

TABLE 9
Exogenous Noise for Firms' Financial Performance Measures

In this table we calculate the standard deviations of the Return on Assets (ROA-column 1) and Return on Equity (ROE-column 4) pre- and post-IFRS, based on all companies in the three-digit industry classification (for all firms) and based on all companies in the four-digit industry classification (for each industry separately). We assume that the exogenous noise in the financial performance measures is an increasing function of the variance in the industry financial performance measures. Columns 7 to 9 are based on the results from Table 2. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. The significance levels for the differences reported are at the 1% (***), 5%(**) and 10% (*) levels.

Industry		st.d.ROA	diff.		st.d. ROE	diff.		EPSTargetWeight	diff.	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All	**Pre-IFRS**	0.022			0.064			0.958		
	Post-IFRS	0.034	0.012	***	0.100	0.036	***	0.828	-0.129	***
Petroleum	**Pre-IFRS**	0.011			0.028			0.233		
	Post-IFRS	0.027	0.016	***	0.055	0.027	***	0.205	-0.028	
Finance/Real estate	**Pre-IFRS**	0.009			0.027			0.859		
	Post-IFRS	0.038	0.029	***	0.114	0.087	***	0.722	-0.137	**
Consumer Durables	**Pre-IFRS**	0.030			0.079			1.065		
	Post-IFRS	0.033	0.003		0.092	0.013		0.956	-0.109	
Basic Industry	**Pre-IFRS**	0.024			0.078			0.875		
	Post-IFRS	0.041	0.017	***	0.088	0.010	*	0.566	-0.309	***
Food/Tobacco	**Pre-IFRS**	0.027			0.077			0.844		
	Post-IFRS	0.044	0.017		0.095	0.018		0.715	-0.129	
Construction	**Pre-IFRS**	0.025			0.047			1.031		
	Post-IFRS	0.031	0.006	*	0.066	0.019	*	1.020	-0.011	
Capital Goods	**Pre-IFRS**	0.031			0.104			1.142		
	Post-IFRS	0.037	0.006	**	0.115	0.011	*	0.942	-0.200	*
Transportation	**Pre-IFRS**	0.017			0.057			0.925		
	Post-IFRS	0.023	0.006		0.083	0.026		0.733	-0.192	
Utilities	**Pre-IFRS**	0.031			0.111			0.686		
	Post-IFRS	0.035	0.004		0.133	0.022		0.594	-0.092	
Textiles/Trade	**Pre-IFRS**	0.031			0.079			1.160		
	Post-IFRS	0.030	-0.001		0.084	0.005		1.203	0.043	

TABLE 9 (continued)

Industry		st.d.ROA (1)	diff. (2)	(3)	st.d. ROE (4)	diff. (5)	(6)	EPSTargetWeight (7)	diff. (8)	(9)
Services	**Pre-IFRS**	0.023			0.062			1.148		
	Post-IFRS	0.025	0.002		0.076	0.014		1.055	-0.093	
Leisure	**Pre-IFRS**	0.027			0.066			1.031		
	Post-IFRS	0.031	0.004		0.104	0.038	*	0.892	-0.139	

Appendix A

Description of variables

We follow Barth et al. (2008) to calculate different metrics for accounting quality related to income smoothing and earnings variability. To do this, first of all we use the variability of changes in net income and the correlation between accruals and cash flows. We run the following equations:

$$DNI_{it} = b_0 + b_1 SIZE_{it} + b_2 GROWTH + b_3 EISSUE_{it} + b_4 LEV_{it} + b_5 DISSUE_{it} + b_6 TURN_{it} + b_7 CF_{it} + b_8 AUD_{it} + b_9 NUMEX_{it} + b_{10} XLIST_{it} + b_{11} CLOSE_{it} + \sum_{i=1}^{12} b_{K+12} IDUM_{it} + \sum_{i=1}^{7} b_{K+24} YEAR + \varepsilon_{it} \quad (A.1)$$

$$CF_{it} = b_0 + b_1 SIZE_{it} + b_2 GROWTH + b_3 EISSUE_{it} + b_4 LEV_{it} + b_5 DISSUE_{it} + b_6 TURN_{it} + b_7 CF_{it} + b_8 AUD_{it} + b_9 NUMEX_{it} + b_{10} XLIST_{it} + b_{11} CLOSE_{it} + \sum_{i=1}^{12} b_{K+12} IDUM_{it} + \sum_{i=1}^{7} b_{K+24} YEAR + \varepsilon_{it} \quad (A.2)$$

$$ACC_{it} = b_0 + b_1 SIZE_{it} + b_2 GROWTH + b_3 EISSUE_{it} + b_4 LEV_{it} + b_5 DISSUE_{it} + b_6 TURN_{it} + b_7 CF_{it} + b_8 AUD_{it} + b_9 NUMEX_{it} + b_{10} XLIST_{it} + b_{11} CLOSE_{it} + \sum_{i=1}^{12} b_{K+12} IDUM_{it} + \sum_{i=1}^{7} b_{K+24} YEAR + \varepsilon_{it} \quad (A.3)$$

where DNI is the change in the firm's net income divided by total assets, CF is the annual cash flows from operating activities divided by total assets, ACC is the difference between DNI and CF, GROWTH is the percentage change in sales, EISSUE is the percentage change in common stock, DISSUE is the percentage change in total liabilities, TURN is sales divided by the end-of-year total assets, NUMEX is the number of stock exchanges on which the firm is listed, XLIST is a dummy

variable that takes the value one if the firm is listed on any US stock exchange and CLOSE is the percentage of closely-held shares of the firm.

We calculate two different earnings management metrics: We use the variance of the residuals from equation A.1, DNI*; and the correlations of the residuals from equations A.2 and A.3, CORREL (ACC*; CF*). We then use each of these as a dependent variable in the following rank-ordered logit model:

$$EPS\ PERFORMANCE\ WEIGHT\ (0.1.2)_{it} = b_0 + b_1 EARN.MNGMT_{it} + b_2 SIZE_{it} + b_3 RET_{it} + b_4 LEV_{it} + b_5 VOL_{it} + b_6 CONSULT_{it} + b_7 AUD_{it} + b_8 SEGMENTS_{it} + b_9 PPE_{it} + b_{10} R\&D_{it} + b_{11} MTBV_{it} + b_{12} ASSETS\ GROWTH_{it} + b_{13} SALES\ GROWTH_{it} + \sum_{i=1}^{12} b_{K+14} IDUM_{it} + \sum_{i=1}^{7} b_{K+26} YEAR + \varepsilon_{it} \quad (A.4)$$

Based on the predictions of optimal contracting theory, if we find that the variability of the net income metric is negatively correlated with the weight given to EPS-based performance measures, then this will indicate that an increased variability in earnings entails an increase in the signal to noise ratio. If this negative correlation increases post-IFRS and earnings become more informative for valuation purposes (i.e. more volatile), this will imply that this extra information, due to the introduction of IFRS, decreases the signal to noise of earnings in relation to managerial performance. We predict results in the opposite direction for the correlation between accruals and cash flows.

We also adopt an earnings quality metric from Barth et al. (2008) related to managing towards positive earnings. In particular, we construct a dummy variable for small positive net income, SPOS, which is equal to one if net income scaled by total assets is

between 0 and 0.01, and zero otherwise. According to Barth et al. (2008), the observation of a smaller number of small positive earnings is a sign of higher earnings quality and hence there should be a negative relationship between SPOS and IFRS, if firms are less likely to manage their earnings towards positive earnings after IFRS adoption. To control whether this is the case for UK firms, we run the following logit model where we expect to see a negative coefficient for SPOS:

$$\begin{aligned} IFRS(0.1)_{it} = {} & b_0 + b_1 SPOS_{it} + b_2 SIZE_{it} + b_3 GROWTH + b_4 EISSUE_{it} + b_5 LEV_{it} + b_6 DISSUE_{it} + \\ & b_7 TURN_{it} + b_8 CF_{it} + b_9 AUD_{it} + b_{10} NUMEX_{it} + b_{11} XLIST_{it} + b_{12} CLOSE_{it} + \\ & \sum_{i=1}^{12} b_{K+13} IDUM_{it} + \sum_{i=1}^{7} b_{K+25} YEAR + \varepsilon_{it} \end{aligned} \quad (A.5)$$

We then run the following rank-ordered logit model for all firm-years in the sample and also after splitting the sample into non-IFRS and IFRS firm-years:

$$\begin{aligned} EPS\ PERFORMANCE\ WEIGHT\ (0.1.2)_{it} = {} & b_0 + b_1 SPOS_{it} + b_2 SIZE_{it} + b_3 RET_{it} + b_4 LEV_{it} + b_5 VOL_{it} + \\ & b_6 CONSULT_{it} + b_7 AUD_{it} + b_8 SEGMENTS_{it} + b_9 PPE_{it} + b_{10} R\&D_{it} + \\ & b_{11} MTBV_{it} + b_{12} ASSETS\ GROWTH_{it} + b_{13} SALES\ GROWTH_{it} + \\ & \sum_{i=1}^{12} b_{K+14} IDUM_{it} + \sum_{i=1}^{7} b_{K+26} YEAR + \varepsilon_{it} \end{aligned} \quad (A.6)$$

From an optimal contracting perspective, a positive coefficient for SPOS would indicate that the recognition of large positive or large negative earnings makes accounting earnings more volatile and, most likely, a noisier managerial performance measure. Therefore, firms with smoother and, most likely, less "noisy" accounting earnings are expected to increase the weight they place on EPS-related targets in their managerial contracts. If Hypothesis 1 stands, we would expect to see a higher positive coefficient for firms in the post-IFRS period.

Finally, we use a metric for timely loss recognition, as in Barth et al. (2008). We create a dummy variable, LNEG, which takes the value one when annual net income divided by total assets is less than -0.20, and zero otherwise. After the introduction of IFRS, firms are more likely to recognise higher losses and hence there is a positive relationship between IFRS and LNEG. To check whether this is the case for our sample of UK firms, we run the following equation, expecting to obtain a positive coefficient for LNEG:

$$\begin{aligned} IFRS(0.1)_{it} = {} & b_0 + b_1 LNEG_{it} + b_2 SIZE_{it} + b_3 GROWTH + b_4 EISSUE_{it} + b_5 LEV_{it} + b_6 DISSUE_{it} + \\ & b_7 TURN_{it} + b_8 CF_{it} + b_9 AUD_{it} + b_{10} NUMEX_{it} + b_{11} XLIST_{it} + b_{12} CLOSE_{it} + \\ & \sum_{i=1}^{12} b_{K+13} IDUM_{it} + \sum_{i=1}^{7} b_{K+25} YEAR + \varepsilon_{it} \end{aligned} \quad (A.7)$$

We then run the following rank-ordered logit model for all firm-years in the sample and after splitting between non-IFRS and IFRS firm-years:

$$\begin{aligned} EPS\ PERFORMANCE\ WEIGHT\ (0.1.2)_{it} = {} & b_0 + b_1 LNEG_{it} + b_2 SIZE_{it} + b_3 RET_{it} + b_4 LEV_{it} + b_5 VOL_{it} + \\ & b_6 CONSULT_{it} + b_7 AUD_{it} + b_8 SEGMENTS_{it} + b_9 PPE_{it} + b_{10} R\&D_{it} + \\ & b_{11} MTBV_{it} + b_{12} ASSETS\ GROWTH_{it} + b_{13} SALES\ GROWTH_{it} + \\ & \sum_{i=1}^{12} b_{K+14} IDUM_{it} + \sum_{i=1}^{7} b_{K+26} YEAR + \varepsilon_{it} \end{aligned} \quad (A.8)$$

From an optimal contracting perspective, a negative coefficient for LNEG would indicate that the recognition of large negative earnings makes accounting earnings more volatile and, most likely, a noisier managerial performance measure. Therefore, firms with smoother and, most likely, less "noisy" accounting earnings are expected to increase the weight they place on EPS-related targets in their managerial contracts. If

Hypothesis 1 stands, we would expect to see a more negative coefficient for firms in the post-IFRS period.

Results

Table A.1 presents the results of the model described in equation A.4 for the variability in changes in net income. The direction of the results is consistent with our expectations and the results are similar to those shown in Table 6 in the main part of this paper. The coefficient for DNI* is negative and statistically significant at the 1% level for all firms. From an optimal contracting perspective, this implies that more volatile net income might be better for valuation purposes but the increased volatility makes earnings-based performance measures less useful for contracting purposes because the extra information included in the measures contains more "noise". Columns 2 and 3 indicate a small decrease in the coefficient post-IFRS in comparison to pre-IFRS and the difference is statistically significant at the 10% level. This is consistent with Table 7 in the main part of the paper, which reports a very small change in the variability of net income post-IFRS. The remaining results in Table A.1 are consistent with those shown in Table 6.

Insert Table A.1 about here

Table A.2 presents the results of the model described in equation A.4 for the correlation between the residuals of the regressions on cash flows and accruals (equations A2 and A3 respectively). The coefficient for all firms is statistically significant at the 1% level, which is consistent with the results of the previous Table. Moreover, the difference between pre and post-IFRS results is negative and

marginally statistically significant at the 10% level, which is again consistent with the results shown in Tables 6 and7 of the main part of the paper.

Insert Table A.2 about here

Tables A.3 and A.4 present results from the models described in equations A.6 and A.8 respectively. Column 1 from Table A.4 shows that firms that report big losses and thus have more volatile earnings place a higher weight on market-based measures than on accounting-based ones. From an optimal contracting perspective, these results imply that smoother earnings are less volatile and likely to contain a smaller amount of inherent "noise" with respect to the information they provide about managerial performance.

Columns 2 and 3 of Table A.3 report results for the pre and post-IFRS periods, respectively. Pre-IFRS, the existence of smoother earnings does not seem to affect the weights given to accounting-based figures. Interestingly, this result changes completely post-IFRS, where the coefficient becomes positive and statistically significant at the 1% level. This implies, combined with the results from Table 7, that firms are more likely to report more volatile earnings post-IFRS but those with "smoother" earnings have a higher probability of placing a higher weight on accounting-based performance measures. From an optimal contracting point of view, this indicates that firms report more volatile earnings due to IFRS but these earnings become a "noisier" measure of managers' actions. In Table A.4, we do not manage to show any strong difference between the pre and post-IFRS periods, concerning the

effect of the existence of large losses on the weight given to EPS-related performance measures in executive pay contracts.

Insert Table A.3 about here

Insert Table A.4 about here

TABLE A.1
EPS TargetWeight choice and the Variability of Changes in Net Income

This table reports odds ratios for a rank-ordered logit model as described in equation A.4. DNI is the change in the firm's net income divided by total assets and DNI* is the variance of the residuals from the regression described in equation A.2. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; ASSETS GROWTH is the percentage change in the firm's total assets over the year. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT			
	All Firms	**Pre-IFRS**	**Post-IFRS**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
DNI*	**-0.921*** **	**-0.942** **	**-0.946*** **	**-0.004***
	(-3.68)	**(-2.01)**	**(-2.62)**	
SIZE	**-0.831*** **	**-0.831*** **	**-0.843*** **	
	(-6.97)	**(-4.30)**	**(-4.93)**	
RET	-0.999	1.000	-0.998	
	(-0.15)	(0.57)	(-1.01)	
LEV	-0.997	-0.995	-0.997	
	(-1.15)	(-0.95)	(-0.91)	
VOL	-0.997	**-0.991***	1.003	
	(-0.80)	**(-1.86)**	(0.82)	
CONSULT	**-0.701*** **	**-0.731** **	**-0.694** **	
	(-3.18)	**(-2.03)**	**(-2.26)**	
AUD	-0.884	-0.779	1.016	
	(-0.60)	(-0.81)	(0.06)	
SEGMENTS	**1.039** **	**1.053***	1.028	
	(2.01)	**(1.67)**	(1.10)	
PPE	**-0.738*** **	**-0.752** **	**-0.711*** **	
	(-3.94)	**(-2.40)**	**(-3.36)**	
R&D	**-0.957*** **	-0.972	**-0.947*** **	
	(-3.85)	(-1.42)	**(-3.79)**	
ASSETS GROWTH	**1.006*** **	1.004	**1.007*** **	
	(2.73)	(1.03)	**(2.68)**	
SALES GROWTH	-0.996	-0.994	-0.997	
	(-1.34)	(-1.18)	(-0.77)	
IDUM	YES	YES	YES	
YEAR	YES	YES	YES	
Pseudo R-squared	0.046	0.041	0.033	
Observations	2618	1016	1602	

TABLE A.2

EPS TargetWeight choice and the Correlation between Accruals and Cash Flows

This table reports odds ratios for a rank-ordered logit model as described in equation A.4. DNI is the annual Net Income divided by Total Assets, CF is the annual Cash Flows from operating activities divided by total assets and ACC is the difference between DNI and CF; CF* and ACC* are the variances of the residuals from the regressions described in equations A.2 and A.3 respectively. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; ASSETS GROWTH is the percentage change of the firm's total assets during the year. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.**]**

	EPS TARGETWEIGHT			
	All Firms	**Pre-IFRS**	**Post-IFRS**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
ACC*&CF* Correlation	**-0.696*** **	**-0.730*** **	**-0.850*** **	**-0.120***
	(-5.56)	**(-3.34)**	**(-3.12)**	
SIZE	**1.096***	-0.982	1.095	
	(1.92)	(-0.29)	(1.33)	
RET	1.000	1.001	-0.999	
	(0.28)	(0.75)	(-0.68)	
LEV	**-0.986*** **	**-0.984*** **	**-0.990*** **	
	(-4.63)	**(-3.03)**	**(-2.81)**	
VOL	-0.998	-0.991	1.005	
	(-0.57)	(-1.63)	(1.28)	
CONSULT	**-0.665*** **	**-0.761***	**-0.613*** **	
	(-3.58)	**(-1.72)**	**(-2.93)**	
AUD	-0.736	-0.683	-0.967	
	(-1.47)	(-1.18)	(-0.12)	
SEGMENTS	1.001	1.020	-0.988	
	(0.10)	(0.61)	(-0.46)	
PPE	**-0.818*** **	**-0.812***	**-0.786*** **	
	(-2.60)	**(-1.65)**	**(-2.40)**	
R&D	**-0.960*** **	-0.965	**-0.948*** **	
	(-3.13)	(-1.56)	**(-3.31)**	
ASSETS GROWTH	**1.008*** **	**1.011** **	**1.007*** **	
	(3.78)	**(2.40)**	**(2.83)**	
SALES GROWTH	**1.007** **	1.006	1.002	
	(2.32)	(1.11)	(0.64)	
IDUM	YES	YES	YES	
YEAR	YES	YES	YES	
Pseudo R-squared	0.065	0.065	0.069	
Observations	2618	1016	1602	

TABLE A.3
EPS TargetWeight choice and Managing towards Small Positive Earnings

This table reports odds ratios for a rank-ordered logit model as described in equation A.6. SPOS is a dummy that takes the value one if net income scaled by total assets is between 0 and 0.01, and zero otherwise; EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; ASSETS GROWTH is the percentage change in the firm's total assets over the year. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT			
	All Firms	**Pre IFRS**	**Post IFRS**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
SPOS	1.161	-0.923	**1.407*** **	**2.330*** **
	(1.48)	(-0.50)	**(2.54)**	
SIZE	**-0.891*** **	**-0.867*** **	**-0.921** **	
	(-3.86)	**(-2.89)**	**(-2.10)**	
RET	1.000	1.001	-0.998	
	(0.24)	(0.94)	(-0.82)	
LEV	**-0.994** **	-0.993	-0.994	
	(-2.20)	(-1.54)	(-1.63)	
VOL	-0.998	**-0.990** **	1.007	
	(-0.55)	**(-1.98)**	(1.56)	
CONSULT	**-0.666*** **	**-0.750** *	**-0.631*** **	
	(-3.56)	**(-1.81)**	**(-2.77)**	
AUD	1.053	-0.972	1.166	
	(0.26)	(-0.09)	(0.55)	
SEGMENTS	1.003	1.028	-0.980	
	(0.15)	(0.85)	(-0.76)	
PPE	**-0.783*** **	**-0.761** **	**-0.746*** **	
	(-3.18)	**(-2.20)**	**(-2.79)**	
R&D	**-0.932*** **	**-0.941*** **	**-0.939*** **	
	(-5.70)	**(-2.74)**	**(-4.30)**	
ASSETS GROWTH	**1.006*** **	1.005	**1.005** **	
	(2.73)	(1.29)	**(2.09)**	
SALES GROWTH	-0.997	-0.995	-0.996	
	(-1.03)	(-1.05)	(-0.97)	
IDUM	YES	YES	YES	
YEAR	YES	YES	YES	
Pseudo R-squared	0.058	0.059	0.042	
Observations	2618	1016	1602	

TABLE A.4
EPS TargetWeight choice and Timely Loss Recognition

This table reports odds ratios for a rank-ordered logit model as described in equation A.8. SPOS is a dummy that takes the value one if net income scaled by total assets is between 0 and 0.01 and zero otherwise. EPS TargetWeight takes the value zero when the firm uses a market-based performance target, one when it uses an EPS target combined with a market-related target and two when it uses an EPS target exclusively. IFRS takes the value one if the firm has adopted IFRS and zero otherwise; SIZE is the natural logarithm of the year-end market value of equity; RET is the raw annual stock return; LEV is the end-of-year total liabilities to total assets; VOL is the annual standard deviation of daily stock returns; CONSULT takes the value one if the firm has retained a compensation consultant and zero otherwise; AUD takes the value one if the firm's auditors are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young, KPMG, or Arthur Andersen and zero otherwise; SEGMENTS is the number of four-digit SIC codes that apply to the firm; PPE is the ratio of the year-end book value of Property, Plant and Equipment to the market value of equity; R&D is the ratio of R&D expenditure to net sales expressed as a percentage; ASSETS GROWTH is the percentage change in the firm's total assets over the year.. The significance levels reported (in bold) are at the 1% (***), 5%(**) and 10% (*) levels. All estimators are robust.

	EPS TARGETWEIGHT			
	All Firms	**Pre-IFRS**	**Post-IFRS**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**
LNEG	**-0.643***	-0.403	-0.742	-0.339
	(-1.75)	(-1.62)	(-1.02)	
SIZE	**-0.892*****	**-0.855*****	**-0.931***	
	(-3.84)	**(-3.15)**	**(-1.85)**	
RET	-0.999	1.001	-0.998	
	(-0.01)	(0.71)	(-1.04)	
LEV	**-0.994****	-0.993	-0.995	
	(-2.02)	(-1.70)	(-1.46)	
VOL	-0.998	**-0.991***	1.007	
	(-0.44)	**(-1.82)**	(1.52)	
CONSULT	**-0.663*****	**-0.749***	**-0.617*****	
	(-3.60)	**(-1.80)**	**(-2.91)**	
AUD	1.037	-0.954	1.175	
	(0.18)	(-0.15)	(0.58)	
SEGMENTS	1.004	1.025	-0.984	
	(0.22)	(0.79)	(-0.61)	
PPE	**-0.781*****	**-0.748****	**-0.767*****	
	(-3.21)	**(-2.32)**	**(-2.65)**	
R&	**-0.932*****	**-0.944*****	**-0.924*****	
	(-5.70)	**(-2.60)**	**(-5.18)**	
ASSETS GROWTH	**1.005*****	1.004	**1.006*****	
	(2.67)	(1.11)	**(2.61)**	
SALES GROWTH	-0.997	-0.994	-0.998	
	(-1.09)	(-1.12)	(-0.57)	
IDUM	YES	YES	YES	
YEAR	YES	YES	YES	
Pseudo R-squared	0.058	0.060	0.062	
Observations	2618	1016	1602	