

**DOES MANDATORY IFRS ADOPTION IMPROVE
THE INFORMATION ENVIRONMENT?**

Joanne Horton^{*}, George Serafeim[§] and Ioanna Serafeim[⌘]

ABSTRACT

We examine the effect of mandatory International Financial Reporting Standards ('IFRS') adoption on firms' information environment. We find that after mandatory IFRS adoption consensus forecast errors decrease for firms that mandatorily adopt IFRS relative to forecast errors of other firms. We also find decreasing forecast errors for voluntary adopters, but this effect is smaller and not robust. Moreover, we show that the magnitude of the forecast errors decrease is associated with the firm-specific differences between local GAAP and IFRS. Exploiting individual analyst level data and isolating settings where investors would benefit more from either increased comparability or higher quality information, we document that the improvement in the information environment is driven both by information and comparability effects. These results are robust to variations in the measurement of information environment quality, forecast horizon, sample composition and tests of earnings management.

JEL Classification: M41, G14, G15

Keywords: IFRS, analysts, information environment, comparability, information quality

^{*} University of Exeter Business School, email: j.horton@exeter.ac.uk

[§] Harvard Business School, email: gserafeim@hbs.edu

[⌘] Greek Capital market Commission, email: i.serafeim@cmc.gov.gr

**DOES MANDATORY IFRS ADOPTION IMPROVE
THE INFORMATION ENVIRONMENT?**

1. INTRODUCTION

According to proponents of International Financial Reporting Standards (IFRS), publicly traded companies must apply a single set of high quality accounting standards, in the preparation of their consolidated financial statements, in order to contribute to better functioning capital markets (Quigley [2007]). IFRS has the potential to facilitate cross-border comparability, increase reporting transparency, decrease information costs, reduce information asymmetry and thereby increase the liquidity, competitiveness and efficiency of markets (Ball [2006], Choi and Meek [2005]).¹

These potential benefits rely on the presumption that mandatory IFRS adoption provides superior information to market participants and/or increased accounting comparability compared to previous accounting regimes. However, to-date there is little and often conflicting empirical evidence that this is the case. Moreover, while all of these potential benefits provide a persuasive argument for IFRS adoption, the costs associated with such a transition cannot be ignored. For example, Ball [2006] notes that the fair value orientation of IFRS could add volatility to financial statements, in the form of both good and bad information, the latter consisting of noise which arises from inherent estimation error and possible managerial manipulation.

Whether harmonisation will actually be achieved is also currently up for debate with many commentators arguing that the same accounting standards can be implemented differently (Kvaal and Nobes [2010]; Schipper [2005]). In the absence of suitable enforcement mechanisms, real convergence and harmonisation is unlikely, resulting in diminished comparability (Ball [2006]). Cultural, political and business differences may also continue to impose significant obstacles in the progress towards this single global financial communication system, since a single set of accounting standards cannot reflect the differences in national business practices arising from differences in institutions and cultures (Armstrong et al. [2009]; Soderstrom and Sun [2007]). Incentives might also continue to dominate the effect of any standards (Bradshaw and Miller [2007]; Lang et al. [2006]). Even with high quality standards, such as IFRS, there is still a risk of relatively lower quality accounting if firms have incentives and opportunities to manipulate (Leuz et al. [2003]).

In this paper we investigate what attributes of IFRS, if any, cause the improvement in the information environment for firms. Prior and contemporaneous studies investigating the impact of IFRS on analysts' forecasting ability has generally found that analyst forecast errors have significantly reduced following voluntary adoption of IFRS (Ashbaugh and Pincus, [2001]; Ernstberger et al. [2008]; Hodgdon et al. [2008]; Bae et al. [2008]) and, for certain groups under mandatory adoption of IFRS (Wang et al. [2008]; Byard et al. [2009]; Preiato et al. [2009]; Cotter et al. [2010]; Tan

et al. [2009]; Glaum et al. [2010]). However, it is difficult to establish from these results the actual causes for such improvements - what is it about IFRS adoption that increases forecast accuracy? In this paper we specifically consider and directly test whether this observed benefit is due to IFRS providing higher quality information and greater comparability or simply that IFRS affords managers greater opportunities to manage their earnings and hence meet analysts' forecasts.

We find that, following the transition to IFRS, mandatory adopters' forecast accuracy and other measures of the quality of the information environment increase significantly more relative to non-adopters and voluntary adopters. Unlike prior studies we do not find that voluntary adopters benefit significantly more from mandating IFRS relative to mandatory adopters (Daske et al. [2008]). To isolate the effect of mandatory adoption we control for time-varying and persistent unobservable firm characteristics that affect forecast accuracy. We also control for industry-year and country-year effects to mitigate any industry and country-wide changes in forecast accuracy. The results are robust to alternative dependent variables, samples of control firms, and forecast horizon choices.

We also find, by holding constant any information effects of IFRS and allowing comparability effects to vary, that the increase in forecast accuracy is driven in part by comparability benefits of IFRS. To test this directly we consider three groups of analysts. First, analysts covering firms that report under a single local GAAP (for example UK GAAP) before mandatory

adoption and after mandatory adoption some firms switch to IFRS but other firms continue to report under local GAAP. For these analysts, we expect accounting comparability to decrease. Second, analysts covering firms that report under a single local GAAP before mandatory adoption and after mandatory adoption all firms switch to IFRS. For these analysts, we expect accounting comparability to remain the same. Third, analysts covering firms that report under multiple local GAAP (for example some firms use UK GAAP and other firms Spanish GAAP) before mandatory adoption and after mandatory adoption all firms switch to IFRS. For these analysts, we expect accounting comparability to increase. We expect that, if information effects exist for mandatory adopters, they are going to benefit all three groups of analysts. To eliminate the possibility that an analyst's choice to change firm coverage affects the results we include in the analysis only mandatory adopters that the analyst is covering both before and after mandatory adoption. Consistent with a comparability effect forecast accuracy improves more for analysts with portfolios that move from Local GAAP to IFRS compared to Local GAAP to Multiple GAAP, and even more for analysts with portfolios that move from Multiple GAAP to IFRS.

Furthermore we find, by holding constant any comparability effects of IFRS and allowing informational effects to vary, that the increase in forecast accuracy is driven in part by information benefits of IFRS. We test this directly by considering analysts covering firms that report under multiple local GAAP before mandatory adoption and after mandatory adoption all firms

switch to IFRS. From the portfolios of those analysts we select voluntary and mandatory adopters that the analyst covers both before and after mandatory adoption. We expect that if IFRS increases information quality then forecast accuracy should improve more for mandatory than for voluntary adopters. We also expect that comparability effects will be present for both mandatory and voluntary adopters for these analysts. We find results consistent with an information effect. For this set of analyst-firm pairs, forecast accuracy improves more for mandatory adopters.

In addition, we find that forecast accuracy improves more for firms with accounting treatments that diverge the most from IFRS, providing some confidence that it is IFRS adoption that causes this change. This may reflect that those firms with the largest deviation of accounting practice from IFRS benefit most from comparability and information benefits (Horton and Serafeim [2010]; Beuselinck et al. [2010]; Brochet et al. [2011]).

However, an alternative explanation of this result is that the reconciliation component captures the increased opportunities for managers, using the additional accruals adjustments afforded to them by IFRS implementation, to manipulate their earnings to meet or beat analysts' forecasts. We do not find evidence consistent with this explanation. Moreover, when we consider whether the increase in forecast accuracy is driven primarily by mandatory adopters with more opportunities to manipulate their earnings (firms with larger accruals or firms that analysts do not forecast cash flows), we do not find any evidence in support of this claim.

We make a number of contributions to the existing literature. First, our study contributes to the literature on the consequences of disclosure by examining the effect of mandatory IFRS adoption (Daske et al. [2008], Horton and Serafeim [2010]) on analysts (Ashbaugh and Pincus [2001], Wang et al. [2008]; Byard et al. [2010]; Cotter et al. [2010]; Tan et al. [2010]) and thus on the information environment (Lang et al. [2003]). We also add to the previous literature by documenting a larger improvement in the information environment for mandatory adopters relative to voluntary adopters and non-adopters (Daske et al. [2008]), and find that this improvement is associated to the firm's earnings reconciliation adjustment.

We contribute to the growing body of literature that directly investigates the comparability benefits (Beuselinck et al. [2007]; Daske et al. [2008]; DeFond et al. [2009]; DeFranco [2009]; Henry et al. [2009]; Barth et al. [2010]; Kvaal and Nobes [2010]; Cascino and Gassen [2010]; Beneish et al. [2010]; Lang et al. [2010]) and information benefits (Ashbaugh and Pincus [2001]; Hung and Subramanyam [2007]; Barth et al. [2008]; Li [2010]; Prather-Kinsey et al. [2008]; Horton and Serafeim [2010]; Beuselinck et al. [2010]; Landsman et al. [2010]; Kim and Li [2010]; Daske et al. [2008]; Daske [2006]; Atwood et al. [2010]) of IFRS, by providing evidence that the increase in forecast accuracy appears to be driven both by information and comparability effects. We also contribute to the debate on the role of incentives, specifically whether managers exercise their judgement opportunistically when implementing IFRS (Leuz et al. [2003]; Ball et al.

[2003]; Ahmed et al. [2010]; Christensen et al. [2008]; Paananen [2008]; Paananen and Lin [2008]; Jeanjean and Stolowy [2008]; Ahmed et al. [2010]; Chen et al. [2010]) by providing evidence that the increase in forecast accuracy appears not to be driven by manipulation.

Before proceeding we need to highlight a number of caveats. First, as in any study that exploits time-series variation from an exogenous event, it is hard to unambiguously attribute causality to the observed effects. We accept that it is possible that correlated omitted variables are driving the results, although we have tried to carefully isolate the effect from IFRS adoption. For example, factors that affect the infrastructure of financial reporting, e.g., improved auditor training related to IFRS, additional analysts training, etc. that are potentially correlated with the adoption of IFRS. However, we attempt to isolate the economic effect of IFRS reporting by considering all three categories of firms and by using several different identification strategies. Second, similar to previous research (Lang and Lundholm [1996]; Healy et al. [1999]), we rely on the analyst forecast characteristics to measure changes in the information environment. To the extent that these proxies are not appropriate, one needs to be careful on how to interpret our findings.

The remainder of the paper is organized as follows. Section 2 reviews the literature and presents the hypotheses. Section 3 describes our research design. Section 4 presents our sample selection and statistics. Section 5 presents our results and section 6 concludes.

2. LITERATURE REVIEW AND MOTIVATION

2.1. Background: IFRS adoption

Countries with prominent capital markets, such as Australia, European Union constituents, Hong Kong, Philippines, and South Africa, require publicly traded companies (with certain exceptions) to present consolidated financial statements in conformity with IFRS for each financial year starting on or after 1 January 2005. Other countries, such as Japan, have decided to adopt IFRS in the future and already allow companies to voluntarily report under IFRS. The SEC has also scheduled a timeline of transition to IFRS for US firms that want to start reporting under IFRS.

While mandatory adoption of IFRS was widespread in 2005 there are still firms that follow alternative accounting standards. In countries such as the US, Canada, Mexico, China, Malaysia and Brazil, firms are not allowed to report under IFRS. Whilst in other countries certain firms are exempt from IFRS adoption. For example, in the UK, companies listed in the Alternative Investment Market (AIM) are not subject to the EU IAS Regulation. The AIM has adopted a rule that requires AIM firms to submit IFRS financial statements for periods beginning on or after 1 January 2007, although voluntary adoption is allowed. Swiss firms² that are not multinationals are also exempt from IFRS compliance. These companies may continue to use Swiss GAAP, or they may choose IFRS or US GAAP (Deloitte [2008]). In addition, the IAS Regulation is only applicable to consolidated accounts and many investment trusts that only publish parent accounts are by their very nature exempt.

Companies reporting under IFRS can be split into either voluntary or mandatory adopters. The first group includes all the companies that adopted IFRS before 2005, while the latter group consists of firms that were forced to adopt IFRS. As a result, currently there are three distinct groups of firms that exhibit different attitudes towards IFRS: ‘non-IFRS adopters’ that exploit the exemptions and choose not to report under IFRS or that are listed in countries where IFRS is not allowed; ‘mandatory adopters’ that only adopt when they are forced to comply; and ‘voluntary adopters’ that choose to comply with IFRS in the period before the regulatory rules demanded IFRS adoption.

Although earlier studies on ‘voluntary adopters’ provide valuable insights as to the effect of IFRS disclosure, these results may not be generalizable in the current mandatory setting (Daske et al. [2008]; Horton and Serafeim [2010]). We expect any effects from IFRS mandatory adoption to be different from those documented for voluntary IFRS adopters (Ashbaugh and Pincus [2001]; Bae et al. [2008]; Guan et al. [2006]), since the former group is essentially *forced* to adopt IFRS, compared to the latter that *chooses* to adopt. For example, past research finds that the decision to voluntarily adopt IFRS reporting is only one element of a broader strategy that increases a firm’s overall commitment to transparency (Daske et al. [2008]; Leuz and Verrecchia [2000]). Thus, any effects around voluntary IFRS adoptions cannot be attributed solely to IFRS compliance. Moreover, under a mandatory setting firms are more likely to be affected by reporting externalities i.e. disclosure by one firm being useful in valuing other firms through intra-industry information

transfers. In contrast, under a voluntary setting there are fewer firms disclosing and therefore such externalities may be moderate. Indeed positive externalities are often used as a rationale in favor of disclosure regulation.

2.2. Information environment and research analysts

Our approach follows prior research by Lang and Lundholm [1996], Healy et al. [1999], Gebhardt et al. [2001], and Lang et al. [2003] and uses the characteristics of analyst forecasts as a proxy for the information environment. In particular, we focus on the accuracy of analyst forecasts. Previous studies suggest inter alia, that more accurate forecasts indicate a firm with a better information environment. Lang and Lundholm [1996] find that firms with better disclosure have lower analyst forecast errors. Hope [2003] finds that countries with better disclosure policies and enforcement have higher analyst forecast accuracy. Similar to this prior literature, we view forecast errors as indicative of, but not necessarily the cause of, changes in a firm's information environment.

2.3. *Analyst Forecasts and IFRS*

The studies investigating the effects of voluntary adoption of IFRS find an improvement in the information environment of analysts (Ashbaugh and Pincus, [2001]; Ernstberger et al. [2008]; Hodgdon et al. [2008]; Bae et al. [2008]), with the exception of Daske [2005]. In contrast, recent studies investigating the effects of mandatory IFRS adoption on the accuracy of

analysts' forecasts have produced inconclusive results. The overall findings suggest improvements in forecast accuracy for some EU and Australian firms post-IFRS (Wang et al. [2008]; Byard et al. [2009]; Preiato et al. [2009]; Cotter et al. [2010]; Tan et al. [2009]). Byard et al. [2009] find an increase in the forecast accuracy but only for those firms that were domiciled in countries with both strong enforcement regimes and domestic accounting standards that differed significantly from IFRS. While Tan et al. [2009] find that forecast accuracy improves post-IFRS for foreign analysts, but not for domestic analysts. However, both Cotter et al. [2010] and Tan et al. [2009] were unable to find any association with increased accuracy and GAAP differences between the firm's home GAAP and IFRS.³ Moreover, Preiato et al. [2009] was unable to find any association with the increased forecast accuracy and a legal enforcement index.

A number of recent studies directly test possible causes for such increases in analyst accuracy following IFRS. For example, Glaum et al. [2009] investigates whether IFRS provides greater quality disclosure and thereby increases the forecast accuracy. They find that although the quality of disclosure improves, this explains only a small proportion of the overall improvement in forecast accuracy. Cheong et al. [2010] and Chalmers [2010] investigate the effect on analysts' forecasts following the new IFRS accounting rules for intangibles. Cheong et al. [2010] find intangibles capitalized post-IFRS are associated with forecast accuracy whilst Chalmers [2010] finds the declassification of intangibles post-IFRS reduces accuracy.

Therefore, to-date it is still unclear exactly what attributes of IFRS reporting is driving this increase in analysts' forecast accuracy. The two most frequently claimed benefits associated with IFRS adoption is an increase in accounting comparability and an increase in information quality.

2.4. Comparability

A major potential benefit from the global move towards IFRS is an increase in accounting comparability. Indeed, the SEC identifies comparability of financial information to investors as a key benefit of moving from US GAAP to IFRS. However, many question the potential for IFRS to increase comparability because the same accounting standards can be implemented differently and in the absence of suitable enforcement mechanisms, real convergence and harmonization is unlikely (Ball, [2006]).

To-date there is little research to support the argument that IFRS has indeed increased comparability. Prior research shows that as a firm's GAAP moves closer to foreign investors' or analysts' home GAAP it reduces the home bias (Bradshaw et al. [2004]; Covrig et al. [2007]; Yu [2010]), and improves the efficiency of information intermediaries (Bae et al. [2007]; Bradshaw et al. [2010]). For example, Tan et al. [2010] find that post mandatory IFRS adoption foreign analysts' following increases significantly more for those firms who had the greatest level of GAAP divergence. Using the same divergence proxy as Tan et al. [2010], Yu [2010] finds mandatory

IFRS adoption increases cross-border equity holdings for those firms where the divergence was greatest prior to IFRS.

These findings appear at first to support the argument that IFRS adoption increases comparability, but arguably what these studies actually capture is familiarity rather than comparability (Bradshaw et al. [2004]). A number of recent studies have attempted to directly test whether IFRS adoption increases comparability. The results are mixed. DeFond et al. [2009], measuring comparability in terms of an increase in uniformity (Bielstein et al. [2007]), find that mandatory IFRS adoption results in a greater increase in foreign investment among firms in countries with strong implementation credibility and an increase in comparability.⁴ Daske et al. [2008] find capital market benefits arising from mandating IFRS are most pronounced for firms who voluntarily adopted IFRS, suggesting possible comparability benefits. However, they conducted several tests but were unable to provide statistical support for this argument.

Other studies argue and find that cultural, political and business differences continue to impose significant obstacles in the progress towards this single global financial communication system, since a single set of accounting standards cannot reflect differences in national business practices arising from differences in institutions and cultures (Armstrong et al. [2009]; Soderstrom and Sun [2007]; Kvaal and Nobes [2010]; Beuselinck et al. [2007]; Henry et al. [2009]). Cascino and Gassen [2010] find that pre-IFRS practices continue after mandatory adoption, whereby some German firms

‘bend’ IFRS towards their local GAAP, whilst Italian firms tend to ‘label adopt’ IFRS. Beneish et al. [2010] find that mandatory IFRS adoption increases cross-border debt but not equity investments, suggesting that IFRS provides no comparability benefits. Lang et al. [2010] find that accounting comparability does not improve for IFRS adopters relative to a control group of non-adopters. They conclude that there is little evidence that IFRS increases true cross-country comparability or the ability of analysts to learn from inter-firm comparisons.

Thus, the empirical question remains as to whether the improvement in the information environment of analysts documented in prior literature is due to an increase in comparability. This leads to our first hypothesis:

H1: Mandatory IFRS adoption provides comparability benefits and as a result affects analyst earnings forecast accuracy for firms adopting IFRS mandatorily.

2.5 Information Benefits

Past research has shown that higher quality reporting reduces adverse selection in securities markets (Welker [1995]; Healy et al. [1999]; Lambert et al. [2007]), reduces cost of capital (Botosan [1997]; Hail and Leuz [2006]), and improves the efficiency of information intermediaries (Land and Lundholm [1996]; Healy et al. [1999]; Hope [2003]). IFRS is considered to be a high

quality set of standards providing valuable information to investors (Ashbaugh and Pincus [2001]; Hung and Subramanyam [2007]).

The research to date provides mixed evidence as to whether IFRS numbers are of a higher quality relative to those associated with the application of domestic GAAP (Leuz and Wysocki [2008]). Barth et al. [2008] find that firms' reporting quality increases following IFRS compliance for voluntary adopters. Li [2010] find that a firm's cost of capital reduces following mandatory IFRS, but only for firms from strong legal enforcement countries (see also Prather-Kinsey et al. [2008]). Horton and Serafeim [2010] find that IFRS reconciliations provide new information to investors even for firms that have already reported their performance under a high quality accounting regime (UK GAAP). Beuselinck et al. [2010] show that stock price synchronicity decreases after mandatory IFRS adoption but the effect is temporary. Landsman et al. [2010] find that the information content of earnings announcement increases after adopting IFRS mandatorily, but only when using abnormal return volatility to proxy for information content rather than abnormal volume. Similarly, Kim and Li [2010] find following mandatory IFRS an increase in intra-industry information transfer, particularly for those announcers whose local GAAP diverged significantly from IFRS.⁵

Various other studies fail to find strong evidence that IFRS improves the information set of investors and find limited or no capital market benefits for mandatory adopters. Daske et al. [2008] show that capital market benefits around mandatory adoption of IFRS are unlikely to exist primarily because of

IFRS adoption. Daske [2006] finds no evidence that IFRS adoption decreases a firm's cost of capital. Atwood et al. [2010] find that earnings reported under IFRS are no more or less persistent and are no more or less associated with future cash flows than earnings reported under local GAAP. Atwood et al. [2010] suggest that the documented increase in analyst forecast accuracy following IFRS is not the result of differences in the underlying persistence of those earnings.

Thus, the empirical question remains as to whether the improvement in the information environment of analysts documented in prior literature is due to an increase in information quality. This leads to our second hypothesis:

Ha2: Mandatory IFRS adoption provides information quality benefits and as a result affects analyst earnings forecast accuracy for firms adopting IFRS mandatorily.

2.6. Incentives and Manipulation

The effect of mandatory IFRS adoption on information quality and comparability is questionable if firms' reporting incentives do not change to align with transparency. A stream of research argues that a firm's reporting incentives, and not accounting standards, is the primary factor that determines the informativeness of accounting statements (Ball et al. [2000]). Ball and Shivakumar [2005] suggest that managers do exercise their discretion and judgment opportunistically (Leuz et al. [2003]; Ball et al. [2003]).

Opponents of IFRS argue that IFRS has increased managerial flexibility and discretion especially due to the lack of implementation guidance and poor

enforcement (Ahmed et al. [2010]; Ball et al. [2003]; Leuz et al. [2003]). Consistent with the importance of incentives, Christensen et al. [2008] find that incentives dominate standards in determining accounting quality around mandatory IFRS adoption. Paananen [2008] and Paananen and Lin [2008] both find a decrease in financial reporting quality, an increase in earnings management, and a reduction in timeliness of loss recognition in Germany following mandatory IFRS. Jeanjean and Stolowy [2008] find no decline in the pervasiveness of earnings management in Austria and UK and find an increase in France. Both Ahmed et al. [2010] and Chen et al. [2010] find evidence of income smoothing and a reduction in timeliness of loss recognition following mandatory IFRS. However, contrary to Chen et al. [2010], Ahmed et al. [2010] also find a significant increase in aggressive reporting of some accruals and no reduction in the management of earnings towards a target. Surprisingly, Ahmed et al. [2010] find their results are more pronounced for firms from countries with a strong rule of law.

Prior literature therefore suggests there are opportunities for earnings management following IFRS. Thus, the documented increase in analysts' forecast accuracy could be a consequence of managers having more opportunities to manage their earnings towards analyst forecasts. Prior studies document the existence of firms managing earnings towards a target (Bannister and Newman [1996]; Degeorge et al. [1999]; Matsumoto [2000]; Abarbanell and Lehary [2003]; Hutton [2005]). This leads to our third hypothesis:

Ha3: The increase in forecast accuracy following mandatory IFRS is associated with an increase in the opportunities for firms to manage earnings towards a target.

3. RESEARCH DESIGN

3.1 Forecast Accuracy

In order to test our three hypotheses we first need to verify whether the adoption of IFRS, for our sample of firms, increases the firm's information environment. Specifically we test for differences in forecast errors before and after IFRS mandatory compliance for both mandatory and voluntary adopters. We include voluntary adopters following the results of Byard et al. [2009] and Daske et al. [2008]. Voluntary adopters, under this new mandatory setting, may benefit from positive externalities in terms of an increase in comparability and disclosure (Coffee [1984]; Lambert et al. [2007]; Daske et al. [2008]). Following the mandatory adoption, there is now a larger pool in which intra-industry information transfers could take place, providing additional information about the voluntary adopters and resulting in an improvement in the information environment (Foster [1980]; Ramnath [2002]; Gleason et al. [2008]). Moreover, disclosure theory suggests that an increase in mandatory disclosure is paralleled by an increase in the incentives to voluntary disclosure – i.e. there is a 'race to the top' (Dye [1986; 1990]), such that although disclosure is costly, voluntary adopters provide even more information to maintain the differential between the mandatory adopters.

Unlike Byard et al. [2008] and consistent with the findings of Daske et al. [2008] we control for the impact of potentially confounding events using non-adopting firms as our control sample. Thus, any change in forecast accuracy for non-adopters will likely reflect the impact of concurrent economic and regulatory changes, but not the impact of mandatory IFRS adoption. I/B/E/S reports twelve consensus forecasts each year for a firm. We choose the consensus forecast that is calculated three months before fiscal year-end to ensure that analysts have adequate information generated by IFRS reporting to affect their forecast accuracy. We later use other consensus forecasts to assess the robustness of our results to the choice of forecast horizon. To test for the effect of IFRS adoption we use the following research design:

$$FE_{it} = \beta_0 + \beta_1 \text{Voluntary IFRS}_{it} + \beta_2 \text{Mandatory IFRS}_{it} + \beta_3 \text{Mandatory}_{it} + \beta_4 \text{Voluntary IFRS} * \text{Mandatory} + \beta_5 \text{Mandatory IFRS} * \text{Mandatory} + \sum_{j=6}^n \beta_j \text{controls} + \varepsilon_{it} \quad (1)$$

We define FE_{it} as the forecast error for firm i and year t . Forecast error is the absolute difference between actual earnings and consensus forecast deflated by absolute actual earnings.⁶ *Voluntary IFRS* is an indicator variable that takes the value of one for firms that adopted IFRS before IFRS was mandated. *Mandatory IFRS* is an indicator variable that takes the value of one for firms that adopted IFRS after IFRS was mandated. *Mandatory* is an indicator variable that captures the period after mandatory IFRS adoption. It takes a value of one for the period after 2005 (after 2003 for Singapore) and zero

otherwise. β_3 captures the effect on firms that did not adopt IFRS, $\beta_3 + \beta_4$ captures the effect on firms that voluntarily adopted IFRS early and $\beta_3 + \beta_5$ captures the effect on firms that adopted IFRS mandatorily.

Model (1) includes only firms that have available data for periods both before and after the mandatory IFRS adoption. Previous research (Clement [1999]; Duru and Reeb [2002]; Bradshaw et al. [2010]) suggests various factors that might affect forecast errors. We use these variables as controls in the models. Control variables include 1) the level of absolute accruals, 2) analyst coverage, 3) the logarithm of the market value of the firm's equity, 4) reporting negative income, 5) forecast horizon, defined as the number of days between the forecast's issue date and the fiscal year end. We also include indicator variables for firms that report under US GAAP or for firms that trade an ADR in the US. We include country-year and industry-year fixed effects in model (1) to control for industry and country-wide time-varying effects. Moreover, we include firm fixed effects to control for persistent firm differences across the three groups of firms. We double cluster standard errors at the firm and at the year level to mitigate serial correlation within a firm or cross-correlation among firms within a year.

To increase our confidence that it is IFRS adoption that causes the increase in forecast accuracy we also examine whether the firm-specific differences between IFRS and local GAAP earnings, captured in the firm's reconciliation document, are associated with the change in forecast accuracy following mandatory IFRS. If IFRS adoption results in greater transparency,

comparability and quality of accounting information then *a priori* those firms with the largest deviation of accounting practice from IFRS should have the most to gain from the transition to IFRS. Several papers have used reconciliation amounts as proxies for the incremental information content of IFRS disclosure (Horton and Serafeim [2010]; Beuselinck et al. [2010]; Brochet et al. [2011]) and find that indeed these larger reconciliation amounts have higher information content.

Previous research investigating the mandatory adoption of IFRS (Tan et al. [2009]; Cotter et al. [2010]) have been unable to find any significant association with differences in accounting standards or reconciliation amounts and forecast accuracy.⁷ This lack of documented association could be because analysts for the first few years of IFRS adoption might find it hard to understand and forecast fundamentals because of their limited experience with IFRS, and/or large reconciliation adjustments reflect the higher levels of complexity and therefore are more difficult to forecast, and/or because of the break in the historical time-series of earnings (Aubert and Dumontier [2009]; Acker et al. [2002]; Cuijpers and Bujink [2005]). Although, Tan et al. [2009] find, even for analysts with prior IFRS experience, no association with forecast accuracy and their index of accounting differences.

We use, as a proxy for the differences between local GAAP and IFRS, a firm-level measure by obtaining the actual reported reconciliation component between IFRS and local GAAP earnings.⁸ This is available because firms were required in the first year of adoption to report the

reconciliations between their last reported local GAAP accounts and IFRS. Therefore, we use the absolute difference between the firm's local GAAP earnings for 2004 and the reconciled IFRS earnings for 2004, as a percentage of absolute local GAAP earnings.⁹

3.2. Comparability and/or information effects

To investigate whether the effect of IFRS on analysts' forecasts is due to IFRS providing a richer information set through greater transparency, and/or IFRS providing greater comparability we need to disentangle these two effects. Therefore we segment the analyst sample in such a way to hold relatively constant the information effects, and allow comparability effects to vary, or by holding the comparability effect constant and allowing information effects to vary. Research analysts are an ideal setting to separate comparability and information effects because the set of stocks that they analyze is publicly observable. Embedded in the analysis of this section is the assumption that analysts focus on specific stocks and therefore a change in accounting standards might increase, decrease or have no effect on accounting comparability for an individual analyst, depending on the composition of the analyst's portfolio.

3.2.1. Comparability Effects

To test for the possibility of comparability effects of IFRS adoption we split the analyst sample into three groups. The first group is *Local GAAP to IFRS* that includes only analysts with portfolios consisting of firms that followed a single local GAAP prior to IFRS and then all switched to IFRS. For example,

an analyst follows only firms whose financial statements use Spanish GAAP until 2004 and then they all switch to IFRS. We believe that for this subset of analysts comparability effects are negligible because these analysts focused on numbers generated by a single set of accounting principles both before and after mandatory IFRS adoption. The second group is *Multiple GAAP to IFRS* that includes only analysts with portfolios consisting of firms following different local GAAPs prior to IFRS (for example, combination of French GAAP and German GAAP) and then the firms all switched to IFRS. We believe that for this subset of analysts comparability increases because these analysts focused on numbers generated by different accounting principles before mandatory IFRS adoption but only from one set of accounting standards after. The last group is *Local GAAP to Multiple GAAP* that includes analysts with portfolios including firms following a single local GAAP prior to IFRS and after mandatory IFRS some firms adopted IFRS and other firms continued to follow their local GAAP. We believe that for this subset of analysts comparability diminishes because these analysts focused on numbers generated from one set of accounting standards before mandatory IFRS adoption but from multiple sets of accounting standards after. To hold information effects relatively homogeneous across the three groups of firms we include in the analysis only forecasts made for mandatory adopters. We therefore exclude voluntary adopters since the incremental information benefits they would generate following mandatory adoption are likely to be lower than for firms implementing IFRS for the first time.¹⁰

Moreover, to mitigate any selection bias that arises from analysts' choice to change coverage we restrict the analysis to firms that an analyst covers both before and after mandatory IFRS adoption. Control variables used in equation (1) are also included and we incorporate additional variables to control for the individual analyst's attributes, e.g. analyst's experience, number of firms covered, number of industries covered, and the size of the brokerage house they work for. This yields the following research design:

$$FE_{it} + \beta_0 + \beta_1 \text{Local GAAP to IFRS} + \beta_2 \text{Multiple GAAP to IFRS} + \beta_3 \text{Mandatory} + \beta_4 \text{Local GAAP to IFRS} * \text{Mandatory} + \beta_5 \text{Multiple GAAP to IFRS} * \text{Mandatory} + \sum_{j=6}^n \beta_j \text{controls} + \varepsilon_{it} \quad (2)$$

Local GAAP to IFRS is an indicator variable and takes a value of one if the analyst's portfolio only includes firms reporting under the same GAAP prior to IFRS and zero otherwise. *Multiple GAAP to IFRS* is an indicator variable and takes a value of one if the analyst's portfolio only includes firms reporting under different GAAPs prior to IFRS and zero otherwise.

3.2.2. Information Effects

To investigate the potential information effects of IFRS adoption we focus on the analyst group *Multiple GAAP to IFRS*. However this time we use both the mandatory and the voluntary adopters. We expect that for this group of analysts comparability effects are present for both mandatory and voluntary adopters but information effects are stronger for mandatory adopters if IFRS increases transparency. If voluntary adopters improve their level of disclosure substantially (Dye [1986]) following mandatory IFRS adoption, then this

introduces bias against the hypothesis. We also include all the control variables used in the comparability test above.

$$FE_{it} + \beta_0 + \beta_1 \text{Mandatory} + \beta_2 \text{Mandatory IFRS} + \beta_3 \text{Mandatory} * \text{Mandatory IFRS} + \sum_{j=4}^n \beta_j \text{controls} + \varepsilon_{it} \quad (3)$$

Mandatory IFRS is an indicator variable that takes the value of one for firms that adopted IFRS after IFRS was mandated. *Mandatory* is an indicator variable that captures the period after mandatory IFRS adoption.

3.3. Manipulation Effects

To examine whether earnings manipulation can explain the predicted increase in forecast accuracy we estimate a number of models. The first model tests whether, on average, forecast accuracy improves more for mandatory adopters that have large absolute accruals. Accruals provide managers with discretion and allow them to alter the inter-temporal pattern of profit (Healy [1985]). Second, we extend the model to test whether forecast accuracy improves more for mandatory adopters for whom analysts do not forecast cash flows. Firms for whom analysts issue cash flow forecasts exhibit lower levels of earnings management (DeFond and Hung [2003]; McInnis and Collins [2010]).

Finally, we examine if firms that now have more accruals under IFRS are more likely to meet or just beat analyst forecasts. We employ the firm-specific reconciliation adjustment, discussed in section 3.1. above, to capture the increased opportunities for firms to manipulate their earnings to meet analysts' forecasts. If IFRS offers opportunities for firms to report larger accruals, relative to their local GAAP, then IFRS also provides greater

opportunities for managers to manipulate their earnings (Healy et al. [1995]). This change in accruals afforded by IFRS is captured in the firm's earnings reconciliation, e.g. large reconciliation adjustment firms have high discretion and small reconciliation adjustment firms have low discretion. If IFRS adopters with the greatest discretion are managing their earnings then we should observe a higher probability for these firms meeting or just beating analysts' forecast after IFRS adoption.

3. SAMPLE AND DESCRIPTIVE STATISTICS

3.1. Sample Selection

The sample covers firms from all countries with I/B/E/S coverage and fiscal years ending on or after December 31, 2001, through December 31, 2007. We start by identifying all firms covered in I/B/E/S. We include only firms with I/B/E/S coverage both before and after IFRS adoption. To classify firms according to which accounting standards they are following we manually code each firm as adopting IFRS early ('voluntary adopters'), adopting IFRS mandatorily ('mandatory adopters'), or continuing to report under other GAAP after 2005 ('non-adopters'), by reviewing their annual reports. The Worldscope classification suffers from many classification errors (Daske et al. [2008]) and therefore we do not use it.¹¹

This procedure yields in total 8,124 unique firms, of which 2,235 adopt IFRS for the first time mandatorily, and 635 firms had voluntarily adopted IFRS. Table 1 provides a break-down of the sample into the number of firms

and observations by country and by the accounting standards followed. The majority of mandatory adopters come from Australia, France, Singapore, Sweden, Hong Kong and the UK. The majority of voluntary adopters are incorporated in Germany, Italy and Switzerland. The composition of the sample is broadly consistent with Daske et al. [2008].

3.2. Descriptive Statistics

Table 2, Panel A, reports summary statistics for the whole sample. For the average sample firm, the mean and median deflated (un-deflated) forecast errors are 0.334 (2.873) and 0.107 (0.140), respectively. Mean forecast dispersion, consensus, common precision, and idiosyncratic precision are 0.148, 0.585, 113, and 191 respectively. We measure consensus, common precision, and idiosyncratic precision consistent with Barron et al. [2002]. Mean and median analyst coverage is 7.4 and 5 respectively. The forecast horizon is approximately 74 days.

Table 2, Panel B reports summary statistics by IFRS adoption type. Voluntary adopters are larger than mandatory adopters and have higher analyst coverage. The level of absolute accruals is similar across the two groups. Voluntary adopters report losses more frequently than mandatory adopters. Non-adopters are moderately larger and have the same analyst coverage as mandatory adopters. The level of absolute accruals is also very similar to the level of absolute accruals for mandatory and voluntary adopters. The same is true for non-adopters excluding US firms or including only firms from

countries that mandated IFRS. Frequency of loss reporting for non-adopters is similar to frequency of loss reporting by mandatory adopters when US firms are excluded.

4. RESULTS

4.1. Effect of mandatory IFRS adoption

4.1.1. Varying the sample

Table 3 presents the estimated coefficients from the multivariate regressions for different samples. We find that forecast accuracy improves significantly after mandatory IFRS adoption for mandatory and voluntary adopters, relative to firms that do not adopt IFRS (column (1)). This improvement is significant at the 1% level for mandatory adopters and at the 10% for voluntary adopters. Column (2) excludes US firms to assess the robustness of the results when the control group does not include US firms. Forecast accuracy again improves for mandatory adopters, but accuracy for voluntary adopters does not significantly improve. Column (3) excludes forecasts made for 2005, the first year of mandatory IFRS adoption. For that year there was still little information generated from IFRS adoption, mainly in the form of companies' presentations of the impact of IFRS and reconciliation reports between IFRS and local GAAP. Excluding forecasts made for the 2005 fiscal year, we find significant decrease in forecast errors both for mandatory and voluntary adopters. Column (4) excludes forecasts made for 2001 and 2002. For these two years, the economy was in a recession. In contrast, for all the other years in the sample the economy was growing. Therefore, eliminating forecasts for

2001 and 2002 makes the periods before and after mandatory IFRS adoption more comparable in terms of economic conditions. Forecast accuracy improves for mandatory adopters, but accuracy for voluntary adopters does not significantly improve. Estimating the regression only on the countries that mandate IFRS produces similar results, with forecast accuracy improving only for mandatory adopters (column (5)). Finally, column (6) excludes firms from Singapore because Singapore was the only country that mandated IFRS before 2005. Forecast accuracy improves significantly after mandatory IFRS adoption for mandatory adopters and marginally significant for voluntary IFRS adopters. The coefficient on Mandatory IFRS * Mandatory is statistically greater than the coefficient on Voluntary IFRS * Mandatory at the 10% level in columns (1), (2), (4), and (6). This result suggests that the decrease in forecast errors is reliably greater for mandatory adopters relative to voluntary adopters under most specifications, although the level of statistical significance is moderate. In unreported tests we include an enforcement index however this does not alter our results.

4.1.2. Varying the measurement of information environment

Table 4 estimates the same model but uses different dependent variables. The first column uses the un-deflated absolute difference between forecast and actual earnings. We use this alternative dependent variable to ensure that the results are not driven by the choice of the deflator. We find that forecast accuracy improves significantly after mandatory IFRS adoption for mandatory and voluntary IFRS adopters relative to firms that do not adopt IFRS (column

(1)). This improvement is significant at the 1% level for mandatory adopters and significant at the 10% for voluntary adopters. Column (2) uses as dependent variable forecast dispersion divided by absolute actual earnings. Forecast dispersion drops significantly for both mandatory and voluntary adopters. This result might reflect an increase in the consensus across analysts and/or increased precision in forecasting (Barron et al. [1998]). To disentangle those two effects we estimate the effect of IFRS reporting on analyst consensus (Barron et al. [2002]). Consensus decreases significantly for mandatory adopters relative to other firms (column (3)). This is contrary to the findings of Beuselinck et al. [2010] who find no change in the consensus.¹² Consensus remains unchanged relative to other firms for voluntary adopters. Idiosyncratic and common precision increase after mandatory IFRS adoption both for mandatory and voluntary adopters (columns (4) and (5)).¹³ The decrease in consensus for mandatory adopters can be explained by the higher increase in idiosyncratic precision compared to common precision.¹⁴

4.1.3. Varying the forecast horizon

Table 5 examines the robustness of the results to the choice of forecast horizon. The main results use forecasts with an average horizon of about 70 days. Table 5 shows results using forecasts with horizon of 40, 100, 160 or 220 days. Overall, we find that forecast accuracy improves significantly more for mandatory adopters relative to other firms. Across all specifications forecast accuracy improves more for mandatory adopters relative to non-adopters and the estimated effect is significant at the 1% level. Forecast

accuracy does not improve significantly more for voluntary adopters relative to non-adopters. The coefficient on Mandatory IFRS * Mandatory is statistically greater than the coefficient on Voluntary IFRS * Mandatory at the 10% level in columns (1), (2), and (4). This result suggests that the decrease in forecast errors is reliably greater for mandatory adopters relative to voluntary adopters for most forecast horizons.

In sum, we find that the information environment improves for mandatory adopters. Macroeconomic factors and not IFRS adoption can cause the decrease in forecast errors thereby casting doubt on whether IFRS causes the improvement in the information environment. However, these factors should affect the three groups of firms on average uniformly and therefore this argument fails to explain why we observe a higher improvement in transparency for mandatory adopters. Moreover, the inclusion of time-varying country, industry and firm factors should mitigate concerns that other unrelated events systematically vary with the IFRS adoption samples and cause different behavior in our information environment measures.

4.2. Effect of mandatory IFRS adoption on information environment –

Firm-specific differences between IFRS and local GAAP

If IFRS adoption has a direct effect on the information environment then forecast accuracy should be associated with the reconciliation amounts. Table 6 confirms this prediction. The sample includes 1,389 unique firms from 18 countries with available I/B/E/S and reconciliation data.¹⁵ The first two

columns include all 1,389 firms. The last two columns exclude 427 UK firms, which populate heavily our sample, to ensure that the results are not driven only by UK firms. Columns (1) and (3) use raw values of the absolute deflated difference between Local GAAP and IFRS earnings. Columns (2) and (4) include rank values of this variable, ranging from one to five, assigned in quintiles. The interaction term *GAAP Difference * Mandatory* is negative and significant across all specifications and therefore forecast accuracy improves more for firms whose domestic accounting practice diverges more from IFRS.

4.3. Mandatory IFRS adoption and information environment: comparability and/or information effects

Table 7, Panel A provides summary statistics for the three groups of analysts and the firms that each group covers. Analysts with portfolios that move from *Local to Multiple GAAP* work in brokerage houses with on average 80 analysts; follow a firm for a little over 3 years; cover 12 firms; and five industries.¹⁶ Average horizon of first (last) forecast is 163 (102) days. Analysts with portfolios that move from *Local GAAP to IFRS* work in brokerage houses with on average 54 analysts, follow a firm for a little over 3 years, cover 8 firms, and four industries. Average horizon of first (last) forecast is 173 (86) days. Analysts with portfolios that move from *Multiple GAAP to IFRS* work in brokerage houses with on average 88 analysts, follow a firm for a little over 3 years, cover 9 firms, and four industries. Average horizon of first (last) forecast is 171 (88) days.

Table 7, Panel B shows that consistent with a comparability effect, forecast accuracy improves more for analysts with portfolios that move from *Local GAAP to IFRS* and even more for analysts with portfolios that move from *Multiple GAAP to IFRS*. In the first (last) two columns, we use the first (last) forecast issued by each analyst within 250 days from fiscal year end. We use as dependent variable deflated and un-deflated absolute forecast errors. The coefficients on *Local GAAP to IFRS * Mandatory* and *Multiple GAAP to IFRS * Mandatory* are negative, and the latter is more negative than the former, across all specifications. Forecast accuracy of analysts, who benefit from accounting comparability, improves more. In unreported tests we examine whether the three groups of analysts differ substantially in terms of the covered firms' country institutions (enforcement, legal institutions etc.) or reconciliation magnitudes. If mandatory adopters covered by analysts with portfolios that move from *Multiple GAAP to IFRS* are incorporated in countries with stronger legal institutions or have larger reconciliation amounts then the results might be caused by enforcement or reconciliation amounts rather than comparability. However, we do not find any systematic differences that could bias our results in either way, and when we include control variables for the quality of country institutions or reconciliation magnitudes all results remain unchanged.

4.3.1. Information Effects

Table 8, Panel A shows summary statistics for analysts with portfolios that move from *Multiple GAAP to IFRS*. These analysts work for brokerage houses

that employ on average 83 analysts, have a little more of 3 years of firm-specific experience, cover 9 firms, and 4 industries. The sample includes 719 mandatory and 345 voluntary adopters. The sample of mandatory and voluntary adopters is comparable in terms of forecast horizon, reporting losses, firm size, and level of absolute accruals.

Table 8, Panel B shows that consistent with an information effect, forecast accuracy improves more for mandatory than for voluntary adopters, for the set of analysts with portfolios that move from *Multiple GAAP to IFRS*. In the first (last) two columns, we use the first (last) forecast issued by each analysts within 250 days from fiscal year end. We use as dependent variable deflated and un-deflated absolute forecast errors. The coefficient on *Mandatory IFRS * Mandatory* is negative and significant.

4.4. Are the findings a result of earnings management?

Table 9 shows that the results are not likely to be the result of earnings management. The coefficient on the triple interaction term *Mandatory IFRS * Mandatory * Absolute accruals* is insignificant (Panel A, column (1)). A negative and significant coefficient would be consistent with an earnings management explanation. In unreported tests, we estimate discretionary accruals using the modified Jones model and we replace absolute accruals with absolute discretionary accruals in the regression. The results are similar to the ones reported above.

The second column interacts the effect of mandatory IFRS adoption with the percentage of analysts that issue a cash flow forecast for the firm. For the median firm one out of three analysts with earnings forecasts issue also a cash flow forecast. The coefficient on the triple interaction term *Mandatory IFRS * Mandatory * CF forecasts* is insignificant (column (2)). A positive and significant coefficient would be consistent with an earnings management explanation.

Table 9 Panel B shows that firms with larger absolute earnings reconciliations (i.e. those firms that have higher probability of greater earnings discretion following IFRS adoption) are no more likely to meet or beat the consensus earnings forecasts after mandatory IFRS adoption. For the manipulation hypothesis to be supported, the coefficient on the interaction term, *GAAP Difference * Mandatory*, needed to be positive and significant. Instead it is negative and insignificant.¹⁷ Collectively, the results do not support that the decrease in forecast errors is driven by managers manipulating earnings to bring them closer to consensus forecasts.

5. CONCLUSION

We investigate whether mandatory IFRS adoption improves firms' information environment. We find that, during the mandatory transition to IFRS, forecast accuracy and other measures of the quality of the information environment improve significantly more for mandatory adopters. Moreover, we find that the larger the difference between IFRS earnings and local GAAP

earnings the larger is the improvement in forecast accuracy, increasing our confidence that it is IFRS adoption that causes the improvement in the information environment.

We also provide evidence on whether the improvement in the information environment can be attributed to higher quality information and/or improved accounting comparability. We find results consistent with both information, and comparability effects. Forecast accuracy improves more for analyst-firm pairs that are affected by either information or comparability benefits. We do not find any evidence to suggest that the increase in forecast accuracy is driven by manipulation.

We believe that these results have important implications for the debate on the globalization of accounting standards and for regulators that are considering a change to IFRS. Although we make no claim with regard to the net cost or benefit of adoption we do highlight that the effects of IFRS compliance are not homogeneous for all firms, even within the same country. Moreover, we note that IFRS adoption is likely to generate both information and comparability effects.

Endnotes

¹ Whether IFRS improves disclosure and lowers information asymmetry is debatable. Leuz and Verrecchia [2000] examine German firms that adopted IAS or U.S. GAAP and find a decrease in spreads and an increase in turnover around adoption, compared to German GAAP firms. Cuijpers and Bujink [2005] do not find significant differences between local GAAP and IFRS firms in the EU. Daske [2006] examines voluntary IAS adoption by German firms and finds that IAS firms exhibit even higher cost of equity capital than local GAAP firms. Daske et al. [2008] find that, on average, market liquidity and equity valuations increase around the introduction of mandatory IFRS in a country. However, these market benefits exist only in countries with strict enforcement regimes and institutional environments that provide strong reporting incentives.

² Switzerland is not a member of the EU and therefore is not subject to the EU IAS Regulation. The Swiss Foundation for Accounting and Reporting publishes accounting standards. Compliance with Swiss GAAP is required for all companies, however compliance with IFRS ensures compliance with Swiss GAAP and many large Swiss companies have, for a number of years, followed IASs/IFRS. However starting with annual reports for 2005 and interim reports for 2006, most Swiss companies whose equity shares are listed on the main board of the Swiss Exchange are required to prepare their financial statements using either IFRS or US GAAP. Swiss GAAP will no longer be permitted.

³ With respect to voluntary IFRS adopters Bae et al. (2008) finds for a sample of foreign analysts a negative relationship between GAAP differences and forecast accuracy, although this association is very sensitive to the model specifications.

⁴ Focusing on comparability with US rather than between IFRS countries Barth et al. [2009] find that efforts to converge accounting standards and the increasing mandatory use of IFRS have increased comparability of accounting amounts. Comparability is assessed in terms of value relevance and accounting system comparability.

⁵ The level of divergence could be capturing both increased information set and comparability benefits.

⁶ Following the findings of Cotter et al. 2010 we use absolute actual earnings rather than the conventional stock price as our deflator. Cotter et al. 2010 notes in their study that using share price as the deflator meant it was not possible to rule out confounding effects since they acknowledge that their sample period 2003 to 2007 included a period of high growth from 2004-2006 followed by a severe decline from 2007 onwards. However, in unreported results we did use alternative deflators such as stock price and all the results were similar. We also find similar results if we do not deflate the forecast errors. Thus the choice of deflator does not appear to be driving the results.

⁷ Although Beuselinck et al. [2010] does find an association with changes in analysts' precision of both public and private information following mandatory IFRS.

⁸ One limitation of this proxy is that, although we are able to capture the recognition and measurement differences within the reconciliation number, we are not able to capture disclosure differences e.g. segmental reporting disclosures pre and post, related party transaction pre and post etc. which will also be associated with the analysts variables.

⁹ We find similar results if we scale the reconciliation amount with the stock price at the previous fiscal year-end.

¹⁰ We do however acknowledge the voluntary adopters may improve their disclosure (Dye 1986; 1990) but believe not at the same level to mandatory adopters.

¹¹ Except for firms in countries that IFRS adoption is not allowed.

¹² These results differ potentially because the sample in Beuselinck et al. [2010] is significantly smaller and the analysis does not control for time varying industry and country effects, and firm fixed effects.

¹³ Readers should interpret the decomposition of consensus to common and idiosyncratic precision with care. As Barron et al. [1998] note the decomposition is valid if the following assumptions are satisfied: analysts issue unbiased forecasts, earnings forecast do not strictly determine earnings realizations, all analysts' idiosyncratic information is of equal precision, and forecast errors are equally distributed. We believe it may well be the case that the third assumption does not hold in our setting.

¹⁴ We also rank transformed the idiosyncratic and common precision variables and estimated the effect of IFRS adoption on the ranking variables. The results were unchanged.

¹⁵ The sample includes firms from the following countries: Austria 2, Belgium 39, Czech Republic 1, Denmark 40, Finland 75, France 240, Greece 53, Ireland 27, Italy 109, Luxembourg 1, Netherlands 85, Norway 57, Poland 6, Portugal 16, Spain 79, Sweden 115, Switzerland 17, and UK 427.

¹⁶ 32% of analysts are classified in this category. Analysts in this group cover on average more companies than other analysts, which makes it more likely that one of their firms won't switch after mandatory adoption. Moreover, at the same time these analysts cover significantly smaller firms compared to other analysts and smaller firms in many jurisdictions switched to IFRS later on and not in 2005.

¹⁷ To control for the possibility that any cross-sectional variation we observe is due to the different levels of enforcement in unreported results we also include an enforcement proxy used in prior studies (Byard et al. [2009]; Preiato et al. [2009]; Cotter et al. [2010]). The results are not sensitive to this inclusion.

References

ACKER, D., J. HORTON, AND I. TONKS. "The Impact of FRS3 on Analysts Abilities to Forecast Earnings per Share." *Journal of Accounting and Public Policy*, 21(2002): 193-218.

ABARBANELL, J. AND R. LEHAVY. "Biased Forecasts or Biased Earnings? The Role of Reported Earnings in Explaining Apparent Bias and Over-/Underreaction in Analysts' Earnings Forecasts", *Journal of Accounting and Economics*, 36 (2005) (1-3): 105-146.

ARMSTRONG, C., M. E. BARTH, A. JAGOLINZER, AND E. J. RIEDL. "Market Reaction to Events Surrounding the Adoption of IFRS in Europe." *Accounting Review*, forthcoming (2009).

ASHBAUGH, H AND M. PINCUS. "Domestic accounting standard, international accounting standards, and the predictability of earnings." *Journal of Accounting Research*, 39 (2001): 417-434.

ATWOOD, T. J., DRAKE, MICHAEL S., MYERS, JAMES N. AND MYERS, LINDA A., Do Earnings Reported Under IFRS Tell Us More About Future Earnings and Cash Flows? (August 2010). *Journal of Accounting and Public Policy*, Vol. 30, No. 4, 2011. Available at SSRN: <http://ssrn.com/abstract=1557406>

BAE, K., H. TAN, AND M. WELKER. "International GAAP differences: the impact on foreign analysts". *The Accounting Review* 83 (3) 2008: 593-628.

BALL, R. "IFRS: Pros and Cons for Investors." *Accounting and Business Research*, International Accounting Policy Forum (2006): 5-27.

BALL, R., A. ROBIN, AND J. WU. "Incentives versus standards: properties of accounting income in four East Asian countries and implications for the acceptance of IAS." *Journal of Accounting and Economics* 36(2003):235-270

BALL, R., S. P. KOTHARI, AND A. ROBIN, "The Effect of International Institutional Factors of Properties of Accounting Earnings". *Journal of Accounting and Economics* 29 (2000): 1-51.

BALL, R., AND L. SHIVAKUMAR, "Earnings Quality in U.K. Private Firms." *Journal of Accounting and Economics* 39 (2005): 83-128.

BANNISTER, J.W. AND H.A. NEWMAN “Accrual Usage to Manage Earnings toward Financial Analysts’ Forecasts”, *Review of Quantitative Finance and Accounting*, 7 (3) 1996: 259–278.

BARRON, O., O. KIM, S. LIM, AND D. STEVENS. “Using analysts’ forecasts to measure properties of analysts’ information environment.” *The Accounting Review*, 73(1998): 421-433.

BARRON, O., D. BYARD, AND O. KIM. “Changes in analysts’ information around earnings Announcements.” *The Accounting Review*, 77(4) 2002: 821-846.

BARTH, M.E., LANDSMAN, W.R., LANG, M.H. AND WILLIAMS, C.D. Are International Accounting Standards-Based and US GAAP-Based Accounting Amounts Comparable? (March 1, 2011). Rock Center for Corporate Governance at Stanford University Working Paper No. 78. Available at SSRN: <http://ssrn.com/abstract=1585404>

BARTH, M., W. LANDSMAN, AND M. LANG. “International Accounting Standards and Accounting Quality.” *Journal of Accounting Research*, 46(2008):467 – 728.

BENEISH, M.D., B.P. MILLER, AND T.L. YOHN. “The Effect of IFRS Adoption on Cross-Border Investment in Equity and Debt Markets.” Working Paper 2010. Available from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1403451

BEUSELINCK, C., P. JOOS AND S. VAN DER MEULEN. “Mandatory Adoption of IFRS and Analysts’ Forecasts Information Properties”, Unpublished Paper 2010. Available from http://www.feb.ugent.be/nl/ondz/Activ/Kijker/BKJV_Analyst_21Oct2009_CB.pdf

BIELSTEIN, M.T., MUNTER, P.H., SCHINAS, W.J. “How the IFRS movement will affect financial reporting in the US.” Published by KPMG’s Department of Public Practice as part of the Defining Issues Series, New York 2007.

BOTOSAN, C., “Disclosure Level and the Cost of Equity Capital.” *The Accounting Review* 72 (1997): 323–349.

BRADSHAW, M. T., AND G. S. MILLER. Will Harmonizing Accounting Standards Really Harmonize Accounting? Evidence from Non-U.S. Firms Adopting US GAAP." *Working paper, Harvard Business School*, 2007.

BRADSHAW, M., B. BUSHEE, AND G. MILLER. "Accounting Choice, Home Bias, and U.S. Investment in Non-U.S. Firms." *Journal of Accounting Research* 42 (2004): 795–841.

BRADSHAW, G. MILLER AND G. SERAFEIM. "Accounting Method Heterogeneity and Analysts' Forecasts", Unpublished paper 2010. Available at: <http://faculty.chicagobooth.edu/workshops/accounting/archive/pdf/BMS%2020090525.pdf>

BROCHET, F., JAGOLINZER, A. AND E.J. RIEDL. 2011 Mandatory IFRS Adoption and Financial Statement Comparability. Harvard Working Paper, May.

BYARD, D., Y. LI, AND Y. YU "The Effect of Mandated IFRS adoption on Analyst' Forecast Errors." Working paper 2010, Baruch College-CUNY

CASCINO, S. AND GASSEN, J., "Mandatory IFRS Adoption and Accounting Comparability" (October 7, 2010). Available at SSRN: <http://ssrn.com/abstract=1402206>

CHALMERS, K., CLINCH, G., GODFREY, J.M. AND WEI, Z. "Intangible Assets, IFRS, and Analysts' Earnings Forecasts" (October 1, 2010). Available at SSRN: <http://ssrn.com/abstract=1722937>

CHEONG, C., KIM, S., AND R. ZURBRUEGG, "The impact of IFRS on financial analysts' forecast accuracy in the Asia-Pacific region", *Pacific Accounting Review*, 22(2010):124-146.

CHEN, H., Q. TANG, QINGLIANG, Y. JIANG and Z. LIN. "The Role of International Financial Reporting Standards in Accounting Quality: Evidence from the European Union." *Journal of International Financial Management & Accounting*, Forthcoming (2010) Available at SSRN: <http://ssrn.com/abstract=1330352>

CHRISTENSEN, H., E. LEE, AND M. WALKER. "Do IFRS reconciliations convey information? The effect of debt contracting." *Journal of Accounting Research*, 47 (2009): 1167-1199.

CLEMENT, M. "Analysts forecast accuracy: Do ability, resources and portfolio complexity matter?" *Journal of Accounting and Economics*, 27 (1999): 285-303.

CHOI, F.D.S. AND MEEK, G. *International Accounting*, 5th edition, Prentice-Hall (2005).

COFFEE, J. "Market Failure and the Economic Case for a Mandatory Disclosure System." *Virginia Law Review* 70 (1984): 717–53.

COTTER, JULIE, TARCA, ANN AND WEE, MARVIN, IFRS Adoption and Analysts' Earnings Forecasts: Australian Evidence (April 16, 2010). Available at SSRN: <http://ssrn.com/abstract=1487371>

COVRIG, V., M. DEFOND AND M. HUNG, "Home Bias, Foreign Mutual Fund Holdings, and the Voluntary Adoption of International Accounting Standards." *Journal of Accounting Research* 45 (2007): 41–70.

CUIJPERS, R. AND W. BUIJINK. "Voluntary adoption of Non-local GAAP in the European Union: A Study of determinants and Consequences." *European Accounting Review*, 14 (2005): 487-524.

DANBOLT, J. AND B. REES. "An Experiment in Fair Value Accounting: UK Investment Vehicles." *European Accounting Review*, Forthcoming. Available at SSRN: <http://ssrn.com/abstract=1020304>

DASKE, H. "Economic Benefits of Adopting IFRS or US GAAP - Has the Expected Cost of Equity Capital Really Decreased?" *Journal of Business Finance and Accounting*, 33(2006): 329-373.

DASKE, H. "Adopting international financial reporting standards in the European Union: Empirical essays on causes, effects and economic consequences." Thesis, Johann Wolfgang Goethe-Universität Frankfurt am Main, 2005.

DASKE, H., L. HAIL, C. LEUZ AND R. VERDI. "Mandatory IFRS reporting around the world: early evidence on the economic consequences." *Journal of Accounting Research*, 46 (2008): 1085-1142.

DEFOND, M., AND M.HUNG. "An Empirical Analysis of Analysts' Cash Flows." *Journal of Accounting and Economics*, 35(2003): 73-90

DEFOND, M., X. HU, M. HUNG, and S. Li. "The impact of mandatory IFRS adoption on foreign mutual fund ownership: the role of comparability." *Journal of Accounting and Economics* 51(2011): 240-258.

- DE FRANCO, G., S. P. KOTHARI AND R. VERDI. 2009. The Benefits of Firm Comparability. MIT Working paper, August.
- DEGEORGE, F., J.PATEL, AND R. ZECKHAUSER “Earnings Management to Exceed Thresholds”, *The Journal of Business*, 72 (1) 1996 : 1–34
- DURU, A., AND D. REEB. “International diversification and analysts’ forecast accuracy and bias.” *The Accounting Review*, 77 (2002):415-433.
- DYE, R.A. “Proprietary and Nonproprietary Disclosures.” *The Journal of Business*, 59 (2) (1986):331-366.
- DYE, R.A. “Mandatory versus voluntary disclosures: the cases of financial and real externalities.” *The Accounting Review*, 65(1) (1990); 1-24
- ERNSTBERGER, J., KROTTER, S., STADLER, C., 2008. Analysts’ forecast accuracy in Germany: The effect of different accounting principles and changes of accounting principles. *BuR – Business Research* 1, 26–53.
- FOSTER, G. “Externalities and Financial Reporting.” *The Journal of Finance*, 35 (1980): 521-533.
- GEBHARDT, W.R., C. LEE AND B. SWAMINATHAN. “Toward an implied cost of capital.” *Journal of Accounting Research*, 39(2001): 135-176.
- GLAUM, M., BAETGE, J., GROTHE, A. AND OBERDOERSTER, T. “Introduction of International Accounting Standards, Disclosure Quality and Accuracy of Analysts’ Earnings Forecasts” (December 2010). *European Accounting Review (Forthcoming)*. Available at SSRN: <http://ssrn.com/abstract=1734410>
- GLEASON, C., N. JENKINS AND W. JOHNSON. “The Contagion effect of accounting restatements.” *The Accounting Review*, 83(1) (2008): 83-110.
- GUAN, Y., O.K. HOPE, AND T. KANG. “Does similarity of local GAAP to U.S. GAAP explain analysts’ forecasts accuracy?” *Journal of Contemporary Accounting and Economics*, 2(2006):190-207.
- HAIL, L., AND C. LEUZ, “International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?” *Journal of Accounting Research* 44 (2006): 485–531.

HEALY, P. “The effect of bonus schemes on accounting decisions.” *Journal of Accounting and Economics*, 7 (1985): 85-107.

HEALY, P. M., A. P. HUTTON, AND K. G. PALEPU. “Stock Performance and Intermediation Changes Surrounding Sustained Increases in Disclosure.” *Contemporary Accounting Research*, 16(1999): 485–520.

HENRY, E., LIN, S. AND YANG, Y., 2009. The European-U.S. gap: IFRS to U.S. GAAP form 20-F reconciliations. *Accounting Horizons*, Vol. 23, No.2 pp.121-150

HODGDON, C, TONDKAR, RH, HARLESS, DW & ADHIKARI, A, 2008, ‘Compliance with IFRS Disclosure Requirements And Individual Analysts’ Forecast Errors’, *Journal of International Accounting, Auditing and Taxation*, vol. 17, no. 1, pp. 1-13.

HOPE, O. “Disclosure practices, enforcement of accounting standards and analysts’ forecast accuracy: an international study.” *Journal of Accounting Research*, 41 (2003): 235-272.

HORTON, J. AND G. SERAFEIM. 2010. Market reaction to and valuation of IFRS reconciliation adjustments: first evidence from the UK. *Review of Accounting Studies* 15: 725-751

HUNG, M AND SUBRAMANYAM, K.R., Financial Statement Effects of Adopting International Accounting Standards: the Case of Germany. *Review of Accounting Studies (Forthcoming)*

HUTTON, A. P. “Determinants of Managerial Earnings Guidance Prior to Regulation Fair Disclosure and Bias in Analysts’ Earnings Forecasts”, *Contemporary Accounting Research*, 22 (2005) (4): 867–914.

ICAEW. EU Implementation of IFRS and Fair Value Directive: A report for the European Commission. ICAEW, October 2007. ISBN 978-1-841852-520-4.

JEANJEAN, T., STOLOWY, H., “Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption.” *Journal of Accounting and Public Policy* 27(2008): 480–494.

KIM, Y. AND S. LI, “Mandatory IFRS Adoption and Intra-industry Information Transfers”, Santa Clara University, Working Paper, March 2010

KVAAL, E., AND C.W. NOBES, “International Differences in IFRS Policy Choice” *Accounting and Business Research*, Forthcoming 2010. Available at SSRN: <http://ssrn.com/abstract=1466693>

LAMBERT, R., C. LEUZ, AND R. VERRECCHIA, “Accounting Information, Disclosure, and the Cost of Capital.” *Journal of Accounting Research* 45(2007): 385–420.

LANDSMAN, W.R., MAYDEW, E.L. AND THORNOCK, JACOB R. “The Information Content of Annual Earnings Announcements and Mandatory Adoption of IFRS” (April 14, 2011). *Journal of Accounting & Economics*, Forthcoming. Available at SSRN: <http://ssrn.com/abstract=1337567>

LANG, M., RAEDY, J., & WILSON, W. (2006). Earnings management and cross listing: Are reconciled earnings comparable to U.S. earnings? *Journal of Accounting and Economics*, 42(1/2), 255–283

LANG, M., AND R. LUNDHOLM. “Corporate disclosure policy and analysts behavior.” *The Accounting Review*, 71(1996): 467-492.

LANG, M., K. LINS AND D. MILLER. “ADRs, Analysts, and Accuracy: Does cross listing in the U.S. improve a firm’s information environment and increase market value?” *Journal of Accounting Research*, 41(2003): 317-345.

LANG, M., M. MAFFETT, AND E. OWENS. 2010. Earnings Co-movement and Accounting Comparability: The Effects of Mandatory IFRS Adoption. Working Paper, University of North Carolina.

LEUZ, C. (2003). IAS versus U.S. GAAP: Information-asymmetry based evidence from Germany's new market. *Journal of Accounting Research*, 41(3), 445–472.

LEUZ, C., AND R. VERRECCHIA. “The economic consequences of increased disclosure.” *Journal of Accounting Research*, 38 (2000):91-124.

LEUZ, C. AND WYSOCKI, P. “Economic Consequences of Financial Reporting and Disclosure Regulation: A Review and Suggestions for Future Research.” Working Paper, University of Chicago. 2008

LI, S, “Does Mandatory Adoption of International Financial Reporting Standards in the European Union Reduce the Cost of Equity Capital?” (September 25, 2009). *Accounting Review, Forthcoming*.

MATSUMOTO, D. A. “Management’s Incentives to Avoid Negative Earnings Surprises”, *The Accounting Review*, 77(2002) (3): 483–514

MCINNIS, J., AND D. W. COLLINS. The effect of cash flow forecasts on accruals quality and benchmark beating. Working Paper 2010, University of Texas at Austin and University of Iowa. Available from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=922770

PAANANEN, M., “Fair Value Accounting for Goodwill Under IFRS: An Exploratory Study of the Comparability in France, Germany, and the United Kingdom” (September 30, 2008). Available at SSRN: <http://ssrn.com/abstract=1275803>

PAANANEN, M. AND LIN, C., “The Development of Accounting Quality of IAS and IFRS Over Time: The Case of Germany” (December 1, 2007). Available at SSRN: <http://ssrn.com/abstract=1066604>

PREIATO, J., P. BROWN AND A. TARCA, 2009, Mandatory IFRS and properties of analysts’ forecasts: How much does enforcement matter? Working paper (University of Western Australia). Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1499625

QUIGLEY, J. Deloitte & Touche World meeting, Berlin, Germany, 2007.

RAMNATH, S. “Investors and Analysts reactions to earnings announcements of related firms: an empirical analysis.” *Journal of Accounting Research*, 40(2002):1351-1376.

SCHIPPER, K. (2005). The introduction of IAS in Europe: Implications for international convergence. *European Accounting Review*, 14: 101-126.

SODERSTROM, N., AND K. SUN. “IFRS adoption and accounting quality: a review.” *European Accounting Review*, 16(2007):675-702.

TAN, H., S. WANG, AND M.WELKER., “Foreign Analysts Following and Forecast Accuracy around Mandatory IFRS Adoptions”, Unpublished Paper, 2009. Available at:

<http://www.bus.wisc.edu/accounting/faculty/documents/PaperMikeWelker4-17-09.pdf>

WANG, X., G. YOUNG AND ZHUANG, Z. “The effects of mandatory adoption of International Financial Reporting Standards on information environments.” Working paper, (2008).

WELKER, M., “Disclosure Policy, Information Asymmetry, and Liquidity in Equity Markets.” *Contemporary Accounting Research* 11(1995): 801–827.

YU, G. “Accounting Standards and International Portfolio Holdings: Analysis of Cross-Border Holdings Following Mandatory Adoption of IFRS.” Unpublished Paper 2010. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1430589

TABLE 1
Sample composition by country and by accounting standard followed

Country	All		Mandatory IFRS		Voluntary IFRS		US GAAP	
	Firm-years	Unique firms	Firm-years	Unique firms	Firm-years	Unique firms	Firm-years	Unique firms
ARGENTINA	15	3	0	0	0	0	0	0
AUSTRALIA	1480	253	484	244	12	2	0	0
AUSTRIA	175	32	20	7	131	25	13	5
BELGIUM	382	69	121	49	88	19	7	3
BERMUDA	86	16	0	0	14	2	71	14
BRAZIL	552	91	0	0	0	0	0	0
CANADA	2082	364	0	0	0	0	114	27
CHILE	169	30	0	0	0	0	0	0
CHINA	595	121	0	0	275	59	15	3
CZECH REPUBLIC	30	5	3	2	21	3	0	0
DENMARK	365	62	123	47	74	15	0	0
EGYPT	31	7	0	0	0	0	0	0
FINLAND	541	88	206	74	66	14	0	0
FRANCE	1514	266	563	230	190	31	24	5
GERMANY	1592	278	232	100	879	166	321	93
GREECE	332	59	137	54	25	5	6	3
HONG KONG	1073	189	482	181	46	8	12	3
HUNGARY	62	10	2	1	58	9	0	0
INDIA	603	117	0	0	0	0	6	2
INDONESIA	295	49	0	0	0	0	0	0
IRELAND	216	39	83	34	0	0	19	4
ISRAEL	187	35	0	0	0	0	105	20
ITALY	681	120	43	15	578	103	12	2
JAPAN	5977	1032	0	0	0	0	258	47
KOREA (SOUTH)	241	56	0	0	0	0	0	0
LUXEMBOURG	52	9	6	2	22	5	19	4
MALAYSIA	845	161	0	0	0	0	0	0

Contemporary Accounting Research (Accepted)

MEXICO	308	49	0	0	0	0	0	0
NETHERLANDS	701	113	252	95	55	9	77	17
NEW ZEALAND	240	41	0	0	0	0	0	0
NORWAY	440	77	197	74	10	2	28	8
PERU	45	8	0	0	0	0	0	0
PHILIPPINES	204	34	83	34	0	0	0	0
POLAND	122	21	38	15	38	6	0	0
PORTUGAL	162	25	57	21	18	4	0	0
RUSSIA	93	20	0	0	45	10	40	9
SINGAPORE	586	110	370	103	13	3	31	6
SOUTH AFRICA	637	105	203	95	53	9	0	0
SPAIN	515	83	220	80	0	0	2	1
SWEDEN	770	129	335	125	17	3	7	1
SWITZERLAND	903	146	66	25	593	100	81	16
TAIWAN	582	111	0	0	0	0	4	1
THAILAND	656	125	0	0	0	0	0	0
TURKEY	293	54	0	0	100	21	0	0
UNITED KINGDOM	3162	591	1158	528	7	2	16	4
UNITED STATES	16617	2721	0	0	0	0	16617	2721
TOTAL	47209	8124	5484	2235	3428	635	17905	3019

This table shows the composition of the sample by country and by accounting standard. We refer to Hong Kong as a country in our analyses, although, more appropriately, it has the status of a Special Administrative Region (SAR) of the People's Republic of China. *Voluntary IFRS* includes firms that adopted IFRS before it was mandated in its country. *Mandatory IFRS* includes firms that adopt IFRS when their country mandated IFRS reporting. *US GAAP* includes firms reporting their primary financial statements under US GAAP. The sample includes only countries with at least 10 firm-year observations.

TABLE 2
Panel A: Summary statistics for variables used in regression analysis

Dependent variables	Mean	STD	Q3	Median	Q1
Error (deflated)	0.334	0.596	0.317	0.107	0.036
Error (non-deflated)	2.873	7.959	0.940	0.140	0.040
Dispersion	0.148	0.222	0.152	0.065	0.027
Consensus	0.585	0.351	0.919	0.681	0.244
Common precision	112.910	243.126	75.623	9.073	0.747
Idiosyncratic precision	190.816	475.320	77.836	6.091	0.318
Independent variables					
Absolute accruals	0.042	0.043	0.055	0.036	0.019
Analyst coverage	7.397	6.484	10.000	5.000	3.000
Firm size	8.108	2.808	9.864	7.684	6.064
Loss	0.137	0.344	0.000	0.000	0.000
Forecast horizon	73.576	2.081	75.000	73.000	72.000
ADR	0.095	0.293	0.000	0.000	0.000

Panel B: Summary statistics by type of IFRS adoption

Mandatory adopters	Mean	STD	Q3	Median	Q1
Absolute accruals	0.043	0.042	0.057	0.037	0.018
Analyst coverage	7.370	6.659	10.000	5.000	2.000
Firm size	7.358	2.340	8.879	7.159	5.662
Loss	0.103	0.304	0.000	0.000	0.000
Voluntary adopters					
Absolute accruals	0.046	0.037	0.060	0.041	0.024
Analyst coverage	8.807	8.242	12.000	6.000	3.000
Firm size	7.667	2.438	9.177	7.555	5.890
Loss	0.141	0.348	0.000	0.000	0.000
Non-adopters					
Absolute accruals	0.042	0.043	0.053	0.034	0.019

Analyst coverage	7.237	6.140	10.000	5.000	3.000
Firm size	8.070	2.954	10.429	7.653	6.291
Loss	0.130	0.307	0.000	0.000	0.000
Non-adopters (excl. US)					
Absolute accruals	0.042	0.039	0.053	0.035	0.020
Analyst coverage	6.573	5.630	9.000	5.000	2.000
Firm size	7.827	2.116	10.259	7.360	6.907
Loss	0.122	0.327	0.000	0.000	0.000
Non-adopters (from mandatory countries)					
Absolute accruals	0.047	0.040	0.058	0.038	0.023
Analyst coverage	8.108	9.060	13.000	4.000	1.000
Firm size	6.378	2.484	8.336	6.216	4.587
Loss	0.214	0.410	0.000	0.000	0.000

Error (deflated) is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Dispersion* is the standard deviation of individual analyst forecasts for a firm i in year t divided by absolute actual earnings. *Consensus* is a measure of the commonality in analysts' information, as captured by the across-analyst correlation in forecast errors (Barron, Byard and Kim [2002]). *Common precision* is a measure of the precision of common information in individual analyst forecasts (Barron, Byard and Kim [2002]). *Idiosyncratic precision* is a measure of the precision of idiosyncratic information in individual analyst forecasts (Barron, Byard and Kim [2002]). *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and end of forecasting period. *ADR* is an indicator variable if firm i in year t trades ADR in the US.

TABLE 3
Effect of mandatory IFRS adoption on information environment – Varying the sample

Sample	All firms		Ex US		Ex 2005		Ex 2001-2002		Mandatory countries		Ex Singapore	
	(1)		(2)		(3)		(4)		(5)		(6)	
Dependent variable	Error (deflated)											
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.4520	-5.02	-0.3011	-2.23	-0.5400	-5.45	-0.3880	-3.75	-0.3034	-1.73	-0.3996	-4.42
Voluntary IFRS	0.0173	1.63	0.0095	0.86	0.0190	1.75	-0.0037	-0.25	-0.0093	-0.47	0.0168	1.58
Mandatory IFRS	0.0520	8.81	0.0486	7.54	0.0557	7.96	0.0481	5.11	0.0285	1.78	0.0515	8.73
Mandatory	0.0070	0.98	-0.0122	-1.13	0.0105	1.30	0.0000	-0.01	-0.0147	-0.75	0.0041	0.58
Voluntary IFRS * Mandatory	-0.0398	-1.86	-0.0227	-1.03	-0.0581	-2.52	-0.0062	-0.28	-0.0216	-0.75	-0.0404	-1.88
Mandatory IFRS * Mandatory	-0.0474	-4.32	-0.0343	-2.80	-0.0572	-4.44	-0.0357	-2.90	-0.0303	-1.99	-0.0494	-4.36
Absolute accruals	-0.2807	-6.74	-0.2875	-4.97	-0.2815	-6.07	-0.1622	-2.66	-0.3723	-4.49	-0.2737	-6.53
US GAAP	0.0680	13.44	-0.0350	-2.95	0.0710	11.39	0.0728	10.46	-0.0570	-2.48	0.0676	13.40
Analyst coverage	-0.0010	-4.17	-0.0011	-3.40	-0.0011	-4.00	-0.0012	-3.57	-0.0013	-3.02	-0.0009	-4.07
Firm size	0.0064	11.39	0.0054	8.62	0.0073	10.11	0.0065	6.95	0.0076	6.26	0.0063	11.30
Loss	0.2997	26.96	0.3879	24.00	0.2942	25.03	0.3082	23.48	0.3556	16.01	0.2998	26.89
Forecast horizon	0.0023	2.03	0.0005	0.27	0.0033	2.60	0.0014	1.11	0.0004	0.16	0.0017	1.45
ADR	-0.0174	-5.58	-0.0018	-0.48	-0.0076	-1.62	-0.0282	-3.82	-0.0025	-0.47	-0.0171	-5.39
Industry-year benchmark	0.1064	3.93	0.0955	2.49	0.1206	4.07	0.1432	3.69	0.1755	3.28	0.1008	3.72
Country-year benchmark	0.4542	21.12	0.4543	18.30	0.4470	19.38	0.4795	15.30	0.4305	12.22	0.4527	20.72
Firm effects	Yes		Yes		Yes		Yes		Yes		Yes	
Adj R-squared	38.8%		39.0%		38.8%		37.1%		40.1%		38.7%	
N	47,209		30,592		39,898		35,284		16,697		46,623	

This table presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors. Each column uses a different sample. ‘All firms’ includes all firms tabulated in table 1. ‘Excl. US’ excludes all US firms. ‘Excl. 2005’ excludes all forecasts made for the fiscal year of 2005. ‘Excl. 2001-2002’ excludes all forecasts made for fiscal years 2001 and 2002. ‘Mandatory countries’ includes only forecasts made for firms that trade in countries that mandated IFRS. ‘Excl. Singapore’ excludes all firms from Singapore. Dependent variable is *Error (deflated)*, which is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Voluntary IFRS* is an indicator variable for a firm that adopted IFRS before it was mandated in its country. *Mandatory IFRS* is an indicator variable that takes the value of one for a firm that adopts IFRS when its country mandated IFRS reporting. *Mandatory* is an indicator variable that takes the value of one for periods on or after 2005 (2003 for Singapore), or else zero. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and end of forecasting period. *ADR* is an indicator variable if firm *i* in year *t* trades ADR in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.

TABLE 4
Effect of mandatory IFRS adoption on information environment – Varying the dependent variable

Dependent variable	Error (non-deflated)		Dispersion		Consensus		Common precision		Idiosyncratic precision	
	(1)		(2)		(3)		(4)		(5)	
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-2.4920	-3.68	-0.0767	-2.26	-0.6969	-11.37	21.1478	0.58	88.4537	1.17
Voluntary IFRS	0.2464	4.03	0.0059	1.37	0.0066	1.13	-9.3317	-4.38	-8.6595	-1.96
Mandatory IFRS	0.3498	7.78	0.0134	6.23	0.0204	6.06	-10.7950	-6.76	-19.4367	-5.90
Mandatory	0.0527	0.85	-0.0055	-2.20	0.0140	3.28	-18.2047	-6.49	-26.5746	-4.56
Voluntary IFRS * Mandatory	-0.2306	-1.80	-0.0256	-2.96	0.0015	0.12	24.7885	5.37	21.4534	2.23
Mandatory IFRS * Mandatory	-0.2330	-2.49	-0.0129	-3.17	-0.0215	-2.98	19.0527	5.35	32.5467	4.39
Absolute accruals	-0.8379	-2.23	-0.1044	-6.80	0.0054	0.20	-4.7230	-0.43	-9.1444	-0.40
US GAAP	0.1017	4.23	0.0310	15.87	-0.0284	-12.31	-12.8968	-10.76	-18.8442	-9.81
Analyst coverage	0.0042	2.35	-0.0003	-2.80	-0.0008	-5.68	-0.3540	-4.48	-0.1634	-0.98
Firm size	0.0573	10.58	0.0012	6.11	0.0012	4.34	-0.1178	-0.83	-0.4663	-1.56
Loss	1.9249	20.85	0.0539	13.30	0.0632	16.76	-22.0241	-16.10	-37.4354	-14.64
Forecast horizon	0.0172	1.97	-0.0003	-0.80	0.0030	3.72	-0.3275	-0.68	-1.3330	-1.32
ADR	-0.1179	-5.86	-0.0060	-5.23	0.0088	6.10	4.0532	6.90	4.5297	4.32
Industry-year benchmark	0.1036	4.70	0.2033	9.72	0.2153	6.32	0.1234	9.23	0.1349	6.86
Country-year benchmark	0.0340	8.18	0.4166	25.26	0.6057	21.87	0.1187	13.83	0.1103	11.55
Firm effects	Yes		Yes		Yes		Yes		Yes	
Adj R-squared	74.1%		44.4%		26.1%		53.6%		43.4%	
N	47,209		41,028		40,951		40,951		40,951	

This table presents OLS specifications testing the effect of mandatory IFRS adoption on measures of information environment quality. Each column uses a different dependent variable. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Dispersion* is the standard deviation of individual analyst forecasts for a firm i in year t divided by absolute actual earnings. *Consensus* is a measure of the commonality in analysts' information, as captured by the across-analyst correlation in forecast errors (Barron, Byard and Kim [2002]). *Common precision* is a measure of the precision of common information in individual analyst forecasts (Barron, Byard and Kim [2002]). *Idiosyncratic precision* is a measure of the precision of idiosyncratic information in individual analyst forecasts (Barron, Byard and Kim [2002]). *Voluntary IFRS* is an indicator variable for a firm that adopted IFRS before it was mandated in its country. *Mandatory IFRS* is an indicator variable that takes the value of one for a firm that adopts IFRS when its country mandated IFRS reporting. *Mandatory* is an indicator variable that takes the value of one for periods on or after 2005 (2003 for Singapore), or else zero. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *ADR* is an indicator variable if firm i in year t trades ADR

in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.

TABLE 5
Effect of mandatory IFRS adoption on information environment – Varying the forecast horizon

Sample	Horizon 40 days		Horizon 100 days		Horizon 160 days		Horizon 220 days	
	(1)		(2)		(3)		(4)	
Dependent variable	Error (deflated)							
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.1801	-4.22	-0.3630	-4.59	-0.6696	-5.65	-0.8941	-6.05
Voluntary IFRS	0.0059	0.58	0.0048	0.43	0.0203	1.59	0.0456	3.02
Mandatory IFRS	0.0403	7.24	0.0467	7.38	0.0574	7.93	0.0781	9.24
Mandatory	0.0030	0.50	0.0022	0.32	0.0012	0.17	0.0070	0.92
Voluntary IFRS * Mandatory	-0.0377	-1.83	-0.0332	-1.48	-0.0366	-1.43	-0.0121	-0.42
Mandatory IFRS * Mandatory	-0.0508	-4.73	-0.0500	-4.21	-0.0389	-2.94	-0.0433	-2.90
Absolute accruals	-0.2380	-6.48	-0.2953	-6.97	-0.3741	-7.41	-0.3086	-5.45
US GAAP	0.0715	14.16	0.0645	12.25	0.0671	11.39	0.0804	12.66
Analyst coverage	-0.0010	-4.74	-0.0009	-3.51	-0.0002	-0.86	0.0002	0.55
Firm size	0.0057	11.53	0.0079	13.10	0.0070	10.03	0.0063	7.91
Loss	0.2539	25.43	0.3121	26.55	0.3758	28.49	0.3985	28.02
Forecast horizon	-0.0016	-1.58	0.0004	0.55	0.0017	2.48	0.0020	3.08
ADR	-0.0184	-6.34	-0.0199	-5.92	-0.0217	-5.56	-0.0283	-6.78
Industry-year benchmark	0.1192	4.27	0.1460	5.78	0.1560	7.11	0.1541	6.75
Country-year benchmark	0.4528	21.50	0.4685	21.12	0.4982	21.25	0.5619	22.93
Firm effects	Yes		Yes		Yes		Yes	
Adj R-squared	38.4%		39.8%		41.5%		42.6%	
N	48,067		45,301		43,069		38,893	

This table presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors. Each column uses forecasts of different horizons. ‘Horizon 40 days’ includes forecasts on average 40 days away from the end of the fiscal period. ‘Horizon 100 days’ includes forecasts on average 100 days away from the end of the fiscal period. ‘Horizon 160 days’ includes forecasts on average 160 days away from the end of the fiscal period. ‘Horizon 220 days’ includes forecasts on average 220 days away from the end of the fiscal period. Dependent variable is *Error (deflated)*, which is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Voluntary IFRS* is an indicator variable for a firm that adopted IFRS before it was mandated in its country. *Mandatory IFRS* is an indicator variable that takes the value of one for a firm that adopts IFRS when its country mandated IFRS reporting. *Mandatory* is an indicator variable that takes the value of one for periods on or after 2005 (2003 for Singapore), or else zero. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *ADR* is an indicator variable if

firm i in year t trades ADR in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.

TABLE 6
Effect of mandatory IFRS adoption on information environment –Firm-specific differences between IFRS and local GAAP

Sample	Mandatory adopters				Mandatory adopters excl. UK			
	(1)		(2)		(3)		(4)	
Dependent variable	Error (deflated)							
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.3119	-1.30	-0.3274	-1.36	0.4527	1.24	0.4354	1.19
Mandatory	-0.0288	-1.51	0.0739	2.32	-0.0500	-1.99	0.0419	1.11
GAAP Difference	0.0091	3.15	0.0237	4.84	0.0095	2.71	0.0211	3.66
GAAP Difference * Mandatory	-0.0133	-2.19	-0.0413	-4.36	-0.0130	-1.98	-0.0375	-3.26
Absolute accruals	-0.2530	-2.05	-0.2825	-2.35	-0.4311	-3.08	-0.4472	-3.23
US GAAP	-0.1987	-2.98	-0.1836	-2.80	-0.1904	-2.83	-0.1781	-2.69
Analyst coverage	-0.0021	-3.01	-0.0019	-2.78	-0.0009	-1.25	-0.0007	-0.99
Firm size	0.0065	3.14	0.0060	2.91	0.0031	1.49	0.0027	1.27
Loss	0.3487	11.05	0.3459	10.99	0.3644	10.38	0.3610	10.27
Forecast horizon	0.0008	0.25	0.0003	0.10	-0.0091	-1.96	-0.0095	-2.03
ADR	0.0092	1.16	0.0078	0.99	0.0037	0.39	0.0019	0.20
Industry-year benchmark	0.1782	2.41	0.1773	2.40	0.1233	1.39	0.1254	1.42
Country-year benchmark	0.4420	7.98	0.4329	7.86	0.4563	7.75	0.4447	7.60
Firm effects	Yes		Yes		Yes		Yes	
Adj R-squared	41.2%		41.3%		42.7%		42.7%	
N	8,168		8,168		5,709		5,709	

This table presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors. ‘Mandatory adopters’ includes all firms that are mandatory adopters of IFRS with available IFRS reconciliation and IBES data. ‘Mandatory adopter’s excl. UK’ includes all firms that are mandatory adopters of IFRS with available IFRS reconciliation and IBES data outside the UK. The first and third column use raw values of *GAAP difference*. The second and third column use rank values (ranging from one to five) of *GAAP difference*. Dependent variable is *Error (deflated)*, which is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Mandatory* is an indicator variable that takes the value of one for periods on or after 2005, or else zero. *GAAP difference* is the absolute difference between IFRS earnings and local GAAP earnings, as published in the reconciliation documents of first time adopters in 2005, divided by the absolute local GAAP earnings. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *ADR* is an indicator variable if firm *i* in year *t* trades ADR in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.

TABLE 7
Panel A: Summary statistics by analyst classification

Analyst group	From Local to Multiple GAAP		From Local GAAP to IFRS		From Multiple GAAP to IFRS	
# of observations	8152		2874		9538	
# of unique firms	1009		384		719	
# of unique analysts	426		197		706	
Statistic	Mean	STD	Mean	STD	Mean	STD
Error (deflated) -(First forecast)	0.406	1.196	0.484	1.327	0.495	1.389
Error (non-deflated) - (First forecast)	2.784	13.008	2.765	13.346	2.272	18.110
Error (deflated) - (Last forecast)	0.339	1.090	0.381	1.161	0.427	1.316
Error (non-deflated) - (Last forecast)	2.460	13.117	2.560	13.275	2.166	18.313
Brokerage house size	79.724	89.655	53.781	67.617	87.895	85.747
Experience	3.280	1.771	3.351	1.820	3.362	1.786
# of firms covered	12.142	6.907	8.261	4.056	8.711	3.959
# of industries covered	4.865	3.297	3.884	2.697	3.584	2.527
Forecast horizon (First forecast)	163.619	54.298	173.888	57.453	171.348	57.853
Forecast horizon (Last forecast)	101.904	49.598	86.132	49.969	87.767	51.740
Loss	0.052	0.223	0.045	0.208	0.074	0.262
Firm size	7.272	2.189	9.111	2.347	9.024	2.457
Absolute accruals	0.041	0.038	0.037	0.037	0.045	0.037

Panel A presents summary statistics for three groups of analysts. ‘*From Local to Multiple GAAP*’ includes analysts, whose portfolios had firms following a single GAAP and after mandatory IFRS adoption some firms in their portfolio follow IFRS and other firms Local or US GAAP. ‘*From Local GAAP to IFRS*’ includes analysts, whose portfolios had firms following a single GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. ‘*From Multiple GAAP to IFRS*’ includes analysts, whose portfolios had firms following different GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. The sample includes only mandatory IFRS adopters. A firm-analyst pair is included in the sample only if it appears both before and after mandatory IFRS adoption. ‘First forecast’ uses the first forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. ‘Last forecast’ uses the last forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. *Error (deflated)* is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Brokerage house size* is the number of analysts working for the brokerage house of the focal analyst. *Experience* is the number of years the analyst has been following a firm. *# of firms covered* is the number of firms an analyst is covering in a year. *# of industries covered* is the number of industries an analyst is covering in a year, based on the Fama-French industry classification. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *Loss* is an indicator variable if a firm is reporting negative net income. *Firm size* is the natural logarithm of total assets. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets.

Panel B: Mandatory IFRS adoption and information environment: effect of accounting comparability

Sample Dependent variable	First forecast				Last forecast			
	Error (deflated)		Error (non-deflated)		Error (deflated)		Error (non-deflated)	
	(1)	(2)	(3)	(4)	(3)	(4)	(3)	(4)
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.6776	-3.55	-6.9735	-3.26	-0.7122	-3.32	-6.4635	-2.92
Local GAAP to IFRS	0.1174	1.67	1.7905	2.52	0.0580	0.84	1.9157	2.55
Multiple GAAP to IFRS	0.1594	1.91	2.9558	2.59	0.1524	1.79	3.1900	2.64
Mandatory	0.2127	3.69	2.8673	3.16	0.2535	3.37	3.2846	3.02
Local GAAP to IFRS * Mandatory	-0.1104	-1.45	-1.2665	-2.09	-0.0807	-1.26	-1.5294	-2.25
Multiple GAAP to IFRS * Mandatory	-0.1798	-1.92	-3.2341	-3.32	-0.1713	-1.74	-3.4268	-3.36
Forecast horizon	0.0008	5.55	0.0035	2.02	0.0005	2.37	-0.0017	-0.80
Brokerage house size	-0.0003	-2.85	-0.0044	-2.27	-0.0003	-2.77	-0.0046	-2.30
Experience	0.0003	0.03	-0.0056	-0.04	0.0023	0.31	-0.0245	-0.17
# of firms covered	0.0010	0.39	-0.0945	-1.73	0.0001	0.05	-0.1123	-1.92
# of industries covered	-0.0033	-0.56	0.1832	2.00	-0.0026	-0.52	0.1898	1.97
Loss	1.2160	9.48	3.8639	3.30	0.9349	8.67	3.6152	2.91
Firm size	-0.0027	-0.27	0.3140	1.90	0.0059	0.60	0.3185	1.86
Absolute accruals	-0.2979	-0.66	6.6745	0.90	-0.0985	-0.24	7.4445	0.98
Industry-year benchmark	0.8273	5.00	0.0191	1.42	1.0935	4.78	0.0231	1.41
Country-year benchmark	0.8573	4.52	1.3058	4.92	0.9431	3.85	1.4098	4.48
Adj R-squared	11.2%		13.8%		9.8%		12.6%	
N	20,564		20,564		20,564		20,564	

Panel B presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors for three groups of analysts. ‘From Local GAAP to IFRS’ includes analysts, whose portfolios had firms following a single GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. ‘From Multiple GAAP to IFRS’ includes analysts, whose portfolios had firms following different GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. ‘From Local to Multiple GAAP’ includes analysts, whose portfolios had firms following a single GAAP and after mandatory IFRS adoption some firms in their portfolio follow IFRS and other firms Local or US GAAP (omitted group). The sample includes only mandatory IFRS adopters. A firm-analyst pair is included in the sample only if it appears both before and after mandatory IFRS adoption. ‘First forecast’ uses the first forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. ‘Last forecast’ uses the last forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. *Error (deflated)* is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *Brokerage house size* is the number of analysts working for the brokerage house of the focal analyst. *Experience* is the number of years the analyst has been following a firm. *# of firms covered* is the number of firms an analyst is covering in a year. *# of industries covered* is the number of industries an analyst is covering in a year, based on the Fama-French industry classification. *Loss* is an indicator variable if a firm is reporting negative net income. *Firm size* is the natural logarithm of total assets. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm level.

TABLE 8
Panel A: Summary statistics by firm classification for analyst portfolios that change from Multiple GAAP to IFRS

Analyst group	From Multiple GAAP to IFRS			
# of observations	14147			
# of unique firms	1064			
# of unique analysts	776			
Statistic	Mean	STD		
Brokerage house size	83.44	83.65		
Experience	3.35	1.78		
# of firms covered	8.68	4.04		
# of industries covered	3.66	2.50		
Firm group	Mandatory adopters		Voluntary adopters	
# of observations	9538		4609	
# of unique firms	719		345	
Statistic	Mean	STD	Mean	STD
Error (deflated) -(First forecast)	0.495	1.389	0.431	1.054
Error (non-deflated) - (First forecast)	2.272	18.111	2.345	22.340
Error (deflated) - (Last forecast)	0.427	1.316	0.345	0.942
Error (non-deflated) - (Last forecast)	2.166	18.313	1.849	18.594
Forecast horizon (First forecast)	171.348	57.853	169.576	58.359
Forecast horizon (Last forecast)	87.768	51.748	86.206	53.001
Loss	0.074	0.262	0.069	0.254
Firm size	9.024	2.457	8.825	2.089
Absolute accruals	0.045	0.037	0.043	0.028

Panel A presents summary statistics. ‘From Multiple GAAP to IFRS’ includes analysts, whose portfolios had firms following different GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. The sample includes voluntary and mandatory IFRS adopters. A firm-analyst pair is included in the sample only if it appears both before and after mandatory IFRS adoption. ‘First forecast’ uses the first forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. ‘Last forecast’ uses the last forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. *Error (deflated)* is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Brokerage house size* is the number of analysts working for the brokerage house of the focal analyst. *Experience* is the number of years the analyst has been following a firm. *# of firms covered* is the number of firms an analyst is covering in a year. *# of industries covered* is the number of industries an analyst is covering in a year, based on the Fama-French industry classification. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *Loss* is an indicator variable if a firm is reporting negative net income. *Firm size* is the natural logarithm of total assets. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets.

Panel B: Mandatory IFRS adoption and information environment: information effect

Sample	First forecast				Last forecast			
Dependent variable	Error (deflated)		Error (non-deflated)		Error (deflated)		Error (non-deflated)	
	(1)		(2)		(3)		(4)	
Parameter	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.3912	-1.61	-3.4213	-1.41	-0.5183	-1.89	-3.1698	-1.35
Mandatory IFRS	0.1916	2.02	1.7946	1.83	0.1874	2.08	1.9063	2.04
Mandatory	0.1791	2.52	1.0633	1.86	0.2352	2.72	0.9659	1.58
Mandatory IFRS * Mandatory	-0.2079	-2.00	-1.5136	-1.92	-0.1912	-1.98	-1.3139	-1.74
Forecast horizon	0.0006	3.47	0.0022	1.11	0.0004	2.07	0.0036	1.16
Brokerage house size	-0.0004	-2.51	-0.0040	-1.41	-0.0004	-3.05	-0.0040	-1.48
Experience	0.0103	0.94	-0.0838	-0.43	0.0119	1.17	-0.1079	-0.51
# of firms covered	-0.0006	-0.14	0.0096	0.21	-0.0011	-0.28	-0.0095	-0.27
# of industries covered	-0.0018	-0.21	-0.0263	-0.57	-0.0041	-0.57	-0.0133	-0.27
Loss	1.0731	8.32	2.2888	2.27	0.7142	6.83	1.7080	1.70
Firm size	-0.0160	-1.34	0.1886	0.81	-0.0095	-0.86	0.1515	0.64
Absolute accruals	-0.3251	-0.51	10.6378	0.75	0.2705	0.45	10.1576	0.76
Industry-year benchmark	0.3986	2.84	-0.0039	-0.19	0.6357	3.31	0.0105	0.45
Country-year benchmark	0.9893	3.82	1.0461	2.87	1.1755	3.07	1.1003	3.50
Adj R-squared	10.4%		26.8%		8.3%		23.5%	
N	14,147		14,147		14,147		14,147	

Panel B presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors for two groups of firms. 'From Multiple GAAP to IFRS' includes analysts, whose portfolios had firms following different GAAP and after mandatory IFRS adoption all firms in their portfolio follow IFRS. The sample includes only voluntary and mandatory IFRS adopters. A firm-analyst pair is included in the sample only if it appears both before and after mandatory IFRS adoption. *Error (deflated)* is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. 'First forecast' uses the first forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. 'Last forecast' uses the last forecast made by an analyst for a firm within 240 days (but not less than 30 days) from the end of the fiscal year. *Error (non-deflated)* is the absolute difference between consensus forecast and actual earnings. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *Brokerage house size* is the number of analysts working for the brokerage house of the focal analyst. *Experience* is the number of years the analyst has been following a firm. *# of firms covered* is the number of firms an analyst is covering in a year. *# of industries covered* is the number of industries an analyst is covering in a year, based on the Fama-French industry classification. *Loss* is an indicator variable if a firm is reporting negative net income. *Firm size* is the natural logarithm of total assets. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm level.

TABLE 9
Panel A: Effect of mandatory IFRS adoption on forecast errors and earnings management

Dependent variable	Error (deflated)			
	(1)		(2)	
Parameter	Estimate	t	Estimate	t
Intercept	-0.4520	-5.02	-0.4526	-5.03
Voluntary IFRS	0.0173	1.63	0.0168	1.57
Mandatory IFRS	0.0520	8.81	0.0512	8.49
Mandatory	0.0070	0.98	0.0069	0.96
Voluntary IFRS * Mandatory	-0.0384	-1.44	-0.0161	-0.69
Mandatory IFRS * Mandatory	-0.0474	-3.70	-0.0392	-3.16
Absolute accruals	-0.2799	-6.19	-0.2810	-6.73
Voluntary IFRS * Mandatory*Absolute accruals	-0.0373	-0.11		
Mandatory IFRS * Mandatory*Absolute accruals	0.0001	0.00		
CF forecasts			0.0020	0.63
Voluntary IFRS * Mandatory*CF forecasts			-0.0240	-2.09
Mandatory IFRS * Mandatory*CF forecasts			-0.0073	-1.17
US GAAP	0.0680	13.44	0.0693	13.16
Analyst coverage	-0.0010	-4.17	-0.0010	-4.49
Firm size	0.0064	11.38	0.0064	11.46
Loss	0.2997	26.95	0.3000	26.97
Forecast horizon	0.0023	2.03	0.0023	2.02
ADR	-0.0174	-5.57	-0.0177	-5.65
Industry-year benchmark	0.1064	3.93	0.1058	3.91
Country-year benchmark	0.4542	21.12	0.4552	21.18
Firm effects	Yes		Yes	
Adj R-squared	38.8%		38.8%	
N	47,209		47,209	

This table presents OLS specifications testing the effect of mandatory IFRS adoption on forecast errors conditional on earnings management variables. Dependent variable is *Error (deflated)*, which is the absolute difference between consensus forecast and actual earnings, divided by absolute actual earnings. *Voluntary IFRS* is an indicator variable for a firm that adopted IFRS before it was mandated in its country. *Mandatory IFRS* is an indicator variable that takes the value of one for a firm that adopts IFRS when its country mandated IFRS reporting. *Mandatory* is an indicator variable that takes the value of one for periods on or after 2005 (2003 for Singapore), or else zero. *Absolute accruals* is the absolute difference between net income and cash flows, divided by total assets. *CF forecasts* is the number of analysts that forecast cash flow per share divided by the number of analyst that forecast earnings per share. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *ADR* is an indicator variable if firm *i* in year *t* trades ADR in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.

TABLE 9

Panel B: Effect of mandatory IFRS adoption on the probability of meeting or beating analyst forecasts.

Sample	Mandatory adopters		Mandatory adopters excl. UK		Mandatory adopters		Mandatory adopters excl. UK	
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Dependent variable			Error (deflated)					
Parameter	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	4.3101	0.064	4.4395	0.026	4.6361	0.191	5.7823	0.059
Mandatory	-0.4728	0.011	-0.4263	0.007	-0.4833	0.054	-0.4775	0.026
GAAP Difference	0.0316	0.156	0.0386	0.048	0.0358	0.122	0.0422	0.044
GAAP Difference * Mandatory	-0.0458	0.126	-0.0284	0.261	-0.0486	0.114	-0.0386	0.148
Absolute accruals	-3.5092	0.122	-1.6658	0.376	-4.9180	0.048	-2.2782	0.239
US GAAP	1.3936	0.149	0.9621	0.331	0.6045	0.569	0.1245	0.909
Analyst coverage	0.0601	<.0001	0.0626	<.0001	0.0398	0.004	0.0433	0.000
Firm size	-0.2521	<.0001	-0.2574	<.0001	-0.3011	<.0001	-0.3245	<.0001
Loss	-0.5858	0.021	-0.9536	<.0001	-0.4487	0.073	-0.8386	0.000
Forecast horizon	-0.0615	0.029	-0.0555	0.022	-0.0494	0.257	-0.0550	0.144
ADR	0.0200	0.942	0.0210	0.924	0.5296	0.064	0.5678	0.012
Industry-year benchmark	3.2784	<.0001	3.6022	<.0001	2.4881	0.012	-2.9143	0.000
Country-year benchmark	0.8596	0.215	0.8486	0.134	-0.2004	0.761	-0.2110	0.690
Firm effects	Yes		Yes		Yes		Yes	
Adj. R-squared	4.07%		5.21%		6.67%		7.91%	
N	8,168		8,168		5,709		5,709	

This table presents a logistic specification testing the likelihood of meeting or beating analyst forecasts following mandatory adoption of IFRS. The dependent variable takes the value of one if the realized earnings are equal to or within a one per cent per share of the analyst's forecast (first and third column). As a sensitivity analysis we also present results where the dependent variable takes the value of one if realized earnings are equal to forecasted earnings or within a three per cent of the analyst's forecast (second and fourth column). 'Mandatory adopters' includes all firms that are mandatory adopters of IFRS with available IFRS reconciliation and IBES data. 'Mandatory adopter's excl. UK' includes all firms that are mandatory adopters of IFRS with available IFRS reconciliation and IBES data outside the UK. *GAAP difference* is the absolute difference between IFRS earnings and local GAAP earnings, as published in the reconciliation documents of first time adopters in 2005, divided by the absolute local GAAP earnings. *Absolute accruals* are the absolute difference between net income and cash flows, divided by total assets. *US GAAP* is an indicator variable that takes the value of one if a firm reports under US GAAP. *Analyst coverage* is the number of analysts providing earnings forecasts for a firm. *Firm size* is the natural logarithm of total assets. *Loss* is an indicator variable if a firm is reporting negative net income. *Forecast horizon* is the number of days between consensus forecast and fiscal year end. *ADR* is an indicator variable if firm *i* in year *t* trades ADR in the US. *Industry-year benchmark* is the average level of the dependent variable by year for each of the 49 Fama-French [1996] industries. *Country-year benchmark* is the average level of the dependent variable by year for each country. Standard errors are robust to heteroscedasticity and clustered at the firm and year level.