Does Mandatory IFRS Adoption Level the Informational Playing Field Between Foreign and Domestic Analysts?

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Abstract

We examine whether the European-wide mandatory adoption of International Financial Reporting Standards (IFRS) improves the forecast accuracy for foreign analysts relative to domestic analysts. First, we find that, on average, foreign analysts experience an improvement in forecast accuracy relative to domestic analysts, consistent with mandatory IFRS adoption reducing domestic analysts' information advantage over foreign analysts. Second, we find that only those foreign analysts familiar with IFRS experience an improvement in forecast accuracy relative to domestic analysts; we find no such evidence for foreign analysts unfamiliar with IFRS. Third, the improvement in forecast accuracy relative to domestic analysts for those foreign analysts familiar with IFRS is concentrated among the set of firms that likely experience the most pronounced increase in disclosures under IFRS; that is, firms domiciled in countries with both strong enforcement regimes and domestic accounting standards that differ significantly from IFRS. Our results highlight that both familiarity with IFRS and the quality of countries' enforcement environments play important roles in determining the extent to which mandatory IFRS adoption levels the informational playing field between foreign and domestic analysts.

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I. Introduction

In 2005 all publicly-listed firms domiciled in the 27 member countries of the European Union (EU) were required to adopt International Financial Reporting Standards (IFRS). This regulatory change represents the largest mandatory adoption of IFRS to date, forcing over 7,000 public companies to simultaneously switch from their various domestic accounting standards to IFRS.[1] As a key component of the EU's Financial Services Action Plan (FSAP) designed to integrate financial markets in Europe, the mandatory European-wide adoption of IFRS was expected to play an important role in promoting cross-border investment (e.g., see Regulation 2002; McCreevy 2005; Tweedie 2006). As EU commissioner for the internal market Charlie McCreevy observed:

> "Clearly, the Financial Services Action Plan to integrate financial markets in Europe makes no sense, if investors have to rely on financial statements based on different local GAAPs. A common accounting standard increases investor transparency and comparability. As users become more familiar and confident with IFRS, the cost of capital for companies using IFRS should fall. It should lead to more efficient capital allocation and greater cross-border investment." (McCreevy 2005; p.1)

A large body of theoretical and empirical research (e.g., Gordon and Bovernberg 1996; Kang and Stulz 1997; Karolyi and Stulz 2003; Aherne et al. 2004) examines investors' home bias, i.e., investors' tendency to invest disproportionately more (less) in domestic (foreign) stocks than the optimal asset allocation suggested by standard portfolio theory. These studies attribute a significant portion of home bias to domestic investors' information advantage over foreign investors arising from domestic investors' better access to firm management and local media, and/or their lower information acquisition and processing costs. Because mandatory IFRS adoption changes firms' financial reporting practices, one primary (if not the only) channel through which the adoption can reduce home bias is by reducing domestic investors' information

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[1] See Regulation (EC) No. 1606/2002 for details of this regulatory change. As of 2006, about 100 countries either required or allowed IFRS.

advantage over foreign investors, particularly with regard to accounting information. The objective of this paper is to shed light on whether the European-wide mandatory adoption of IFRS reduces domestic investors' information advantage over foreign investors with respect to upcoming earnings. To do so, we examine whether mandatory IFRS adoption improves the accuracy of earnings forecasts by foreign analysts relative to domestic analysts.

We focus on financial analysts for three reasons. First, financial analysts are among the most sophisticated and important users of financial statements who specialize in processing and disseminating financial information for investors. Second, financial analysts explicitly forecast earnings, which allows for a direct measure of the precision of their earnings information, i.e., the accuracy of their earnings forecasts. Third, prior studies (see Orpurt 2004; Bae et al. 2008a) document that earnings forecasts issued by domestic analysts are more accurate than those issued by foreign analysts, indicating that domestic analysts possess an information advantage over foreign analysts with respect to earnings. An incremental improvement in forecast accuracy for foreign analysts relative to domestic analysts would, thus, indicate a reduction in domestic analysts' information advantage over foreign analysts.

IFRS are more comprehensive and more capital market oriented than European countries' domestic accounting standards (Ding et al. 2007; Bae et al. 2008b). The expanded disclosures and enhanced comparability under IFRS likely yield additional information which can substitute for alternative information sources (e.g., firms' management or local media) that typically favor domestic analysts. As a result, we expect mandatory IFRS adoption to improve foreign analysts' forecast accuracy relative to domestic analysts. However, the effect of mandatory IFRS adoption is unlikely to be uniform across all analysts, or across all firms. First, expanded disclosures and enhanced comparability under IFRS would improve foreign analysts' information only if foreign analysts have the ability to extract useful information from the expanded disclosures. Such ability is not as important for domestic analysts because domestic analysts have access to alternative information sources about upcoming earnings (Covel and Moskowitz 1999; Malloy 2005). Bae et al. (2008a) find that foreign analysts located in countries with accounting standards

that differ more from the accounting standards used by the firms they follow tend to issue less accurate earnings forecasts. Similarly, Bradshaw et al. (2004) show that U.S. institutional investors invest less in non-U.S. firms that use accounting policies that differ more from U.S. GAAP. These findings suggest that both foreign analysts' and foreign investors' information is adversely affected by differences in accounting standards. In our setting, foreign analysts who are more familiar with IFRS (i.e., those whose home-country accounting standards are more similar to IFRS) are likely better able to analyze IFRS-based financial statements. All else being equal, we expect a greater improvement in forecast accuracy for foreign analysts relative to domestic analysts when foreign analysts are more familiar with IFRS.

Second, holding analysts' familiarity with IFRS constant, the adoption effect also depends on the degree to which mandatory IFRS adoption increases firm disclosures and enhances the comparability of financial statements. The fact that many mandatory adopters chose not to voluntarily adopt IFRS prior to the mandatory adoption deadline suggests that these firms already optimized their financial reporting strategies under their domestic standards. As a result, these firms likely lack incentives to rigorously implement IFRS. Strong enforcement is thus critical in ensuring compliance with IFRS (Ball 2006). Additionally, the changes required by mandatory IFRS adoption should be small for those EU countries (e.g., UK) with domestic standards that are similar to IFRS (Ashbaugh and Pincus 2001). Mandatory IFRS adoption is therefore likely to result in a greater improvement in disclosures and comparability for firms domiciled in countries with *both* domestic accounting standards differing substantially from IFRS and strong enforcement environments. Hence, we expect the incremental improvement in forecast accuracy for foreign analysts relative to domestic analysts to be greater for these firms.

Our sample includes a constant set of analysts and firms; that is, we examine the same analysts following the same set of European-based firms before and after these firms mandatorily adopt IFRS. Using a constant sample alleviates concerns that our results are driven by changing sample composition. Our sample period includes a *pre*-adoption period (the last two years firms reported in their domestic accounting standards) and a *post*-adoption period (the first two years

under IFRS). We hand-collect analyst location data from *Nelson' Directory of Investment Research*. For all analyst-firm pairs, we define domestic (foreign) analysts as those analysts (not) located in the same country as the firm being followed. Our sample is comprised of 4,303 analyst-firm pairs, representing 964 firms followed by 1,132 analysts. Of these 4,303 analyst-firm pairs, 3,376 (78.5-percent) represent coverage by domestic analysts, while 927 (21.5-percent) represent coverage by foreign analysts. We compare the change in forecast accuracy from the *pre-* to *post*-adoption period across domestic and foreign analysts.

We undertake three sets of tests. Our first test examines the average adoption effect, i.e., whether, on average, foreign analysts' forecast accuracy improves relative to domestic analysts following mandatory IFRS adoption. Our second test examines whether the adoption effect varies with foreign analysts' familiarity with IFRS. Our third test examines whether the adoption effect varies with country-level institutional factors that determine the degree to which mandatory IFRS adoption increases firm disclosures and enhances comparability.

Our main findings are as follows. In the first test, we find some evidence of an improvement in forecast accuracy for foreign analysts relative to domestic analysts, consistent with mandatory IFRS adoption reducing domestic analysts' information advantage over foreign analysts. In the second test, we partition foreign analysts into two groups: a group that is familiar (unfamiliar) with IFRS, which includes foreign analysts located in countries with domestic accounting standards relatively similar to (different from) IFRS, e.g., the UK (Italy). We find that only foreign analysts familiar with IFRS experience an improvement in forecast accuracy relative to domestic analysts; we find no such evidence for foreign analysts unfamiliar with IFRS. The difference between these two groups of foreign analysts is statistically significant. In the third test, we find that the improvement in forecast accuracy relative to domestic analysts for those foreign analysts familiar with IFRS is concentrated in the subset of firms likely to substantially change their financial reporting practices as a result of mandatory IFRS adoption, i.e., firms domiciled in countries with *both* domestic accounting standards that differ significantly from IFRS and strong enforcement environments.

To corroborate the results from these three cross-sectional analyses, we also conduct *within-firm* comparisons of domestic and foreign analysts. We select a subsample of firms that are simultaneously followed by at least one domestic and one foreign analyst in both the *pre-*and *post*-adoption periods. While the sample size is much smaller, this within-firm comparison mitigates potential concerns that the main results based on cross-sectional analyses are driven by correlated omitted variables. Our inferences are unchanged using this within-firm analysis.

Our study makes three main contributions. First, it contributes to an emerging literature on the economic consequences of mandatory IFRS adoption. Prior studies examine changes in market liquidity, cost of capital, and analysts' information environment (Daske et al. 2008; Li 2010; Byard et al. 2010). Several concurrent studies (Florou and Pope 2009; Yu 2009; DeFond et al. 2010) examine changes in institutional investors' cross-border portfolio holdings, and generally find an increase in such holdings after mandatory IFRS adoption.[2] Our study complements these concurrent studies by providing evidence on how mandatory IFRS adoption changes domestic analysts' information advantage over foreign analysts. The alternative approaches of our study and these concurrent studies each have pros and cons. While changes in institutions' portfolio holdings directly capture institutional investors' capital allocation decisions, such changes can also be affected by investment strategies unrelated to firm fundamentals (e.g., index funds) or based on non-accounting information. In contrast, because analysts specialize in analyzing financial statements and predicting earnings, evidence on the change in domestic analysts' information advantage over foreign analysts with respect to future earnings is likely attributable to mandatory IFRS adoption rather than to confounding concurrent events.[3]

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[2] Additionally, in another concurrent study, Tan et al. (2009) find an increase in foreign analysts' following and forecast accuracy following mandatory IFRS adoption. However, they do not compare the change in forecast accuracy across domestic and foreign analysts.

[3] Concurrent events include the adoption of other components of the EU's Financial Services Action Plan (FSAP) other than mandatory IFRS adoption. The FSAP is comprised of a package of 42 regulatory and legislative changes (see European Commission 1999, 2000) intended to "remove the remaining economically significant barriers so financial services can be provided and capital can circulate freely throughout the EU at the lowest possible cost" (European Commission 2004; p. 3). Other concurrent events include changes in enforcement (Hail

Second, our study provides new evidence on analysts' information-processing costs due to differences in accounting standards. Bae et al. (2008b) find that a foreign analyst' forecast accuracy is negatively associated with the difference between the accounting standards used by the firm she follows and the accounting standards of her home country, consistent with accounting standard differences imposing information-processing costs on foreign analysts. However, they acknowledge that, by using a levels study, they "are unable to completely rule out the possibility that our GAAP difference measures capture other country-pair differences" (p. 625). They further recommend that "the recent adoption of IAS throughout the European Union provides an opportunity to extend our results to a setting where time-series analysis around a mandated change in accounting could be undertaken." We conduct such a change analysis. We find that foreign analysts less familiar with IFRS (i.e., foreign analysts whose home-country accounting standards are more different from IFRS) benefit less from mandatory IFRS adoption.

Third, our study adds to the growing reporting incentive literature (e.g., Ball et al. 2000, 2003; Leuz 2003; Daske et al. 2008) by providing evidence that enforcement plays a critical role in determining the effect of mandatory IFRS adoption on domestic analysts' information advantage over foreign analysts. Our findings highlight that simply mandating IFRS is not sufficient to ensure actual changes to financial reporting practices (Ball 2006).

Our results have implications for policy-makers who wish to understand the effect of mandatory IFRS adoption on cross-border investment. Our results suggest that mandatory IFRS adoption reduces the information disadvantage faced by foreign investors, which in turn should lead to greater cross-border investment. However, our results also suggest that the adoption benefits of mandatory IFRS adoption are uneven across investors and across countries: both investors' familiarity with IFRS and country-level enforcement environments play critical roles in determining the extent to which mandatory IFRS adoption levels the informational playing field between foreign and domestic investors.

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and Leuz 2007) and the European Central Bank's (ECB) initiatives to promote the integration of European financial markets (e.g., see European Central Bank 2007).

The paper is organized as follows. Section II develops our hypotheses. Section III presents our sample selection and study design. Section IV presents the main results, followed by Section V with additional analyses. Section VI concludes.

II. HYPOTHESES DEVELOPMENT

Home bias is the well-documented phenomenon whereby investors under- (over-) weigh their portfolio investments in foreign (domestic) stocks relative to the optimal asset allocation determined by standard portfolio theory.[4] Home bias is costly because it constrains risk sharing and results in a higher cost of capital (Lau et al. 2010). While regulatory and institutional restrictions on international capital flows may contribute to home bias, the primary cause is domestic investors' information advantage over foreign investors (see Coval and Moskowitz 2001; Aherne et al. 2004; Van Nieuwerburgh and Veldkamp 2009). Domestic investors' information advantage arises from their better access to local media and firm management, their ability to directly observe firms' business activities, and their interactions with firms' employees and suppliers (Coval and Moskowitz 1999). Facing a higher risk of incurring losses from trading against better-informed domestic investors, foreign investors avoid making cross-border investments. The link between domestic investors' information advantage and home bias has been both demonstrated analytically (e.g., Gordon and Bovenberg 1996) and supported by empirical evidence (e.g., Kang and Stulz 1997; Coval and Moskowitz 1999; Aherne et al. 2004).

Several empirical studies examine domestic analysts' information advantage by comparing the accuracy of earnings forecasts by domestic and foreign analysts (i.e., analysts located in a different country from the firm covered).[5] Orpurt (2004) studies seven European countries, and reports that domestic analysts issue more accurate earnings forecasts than foreign analysts. Bae et al. (2008b) find similar evidence in a larger sample of 32 countries. These

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[4] See also Karolyi and Stulz (2003) for a review of the home bias literature.

[5] Another strand of research compares the investment performance of domestic investors with that of foreign investors (see Bae et al. 2008a for a discussion).

studies also find that domestic analysts' information advantage over foreign analysts is less pronounced for firms that provide more public disclosures.[6]

This study examines whether mandatory IFRS adoption levels the informational playing field between foreign and domestic analysts. Specifically, we examine whether mandatory IFRS adoption improves forecast accuracy for foreign analysts relative to domestic analysts. IFRS are more comprehensive and more capital market orientated than European countries' domestic accounting standards (Ding et al. 2007; Bae et al. 2008b). Consequently, policy-makers expect that switching from domestic standards to IFRS would enhance firm disclosures and increase comparability (EC Regulation No. 1606/2002). If the new information foreign analysts derive from the expanded financial disclosures or enhanced comparability serves as a substitute for alternative information sources that typically favor domestic analysts, then mandatory IFRS adoption would level the informational playing field between domestic and foreign analysts (e.g., Verrecchia 1982; Lundholm 1991; Bushman and Smith 2001). Our first hypothesis, stated in the alternative form, is as follows.

> *H1:*   *Ceteris paribus, the European-wide mandatory adoption of IFRS is associated with an improvement in forecast accuracy for foreign analysts relative to domestic analysts.*

The adoption effect likely varies across analysts and across firms. For IFRS adoption to reduce domestic analysts' information advantage over foreign analysts, foreign analysts must be able to extract useful information from the expanded disclosures or enhanced comparability provided by IFRS-based financial statements. Bae et al. (2008a) find that more accurate earnings forecasts are issued by foreign analysts whose home-country accounting standards differ less from the firm's home-country accounting standards. Similarly, Bradshaw et al. (2004) find that U.S. institutional investment is higher in non-U.S. firms that use a greater number of accounting methods that conform with U.S. GAAP. These findings suggest that foreign analysts or foreign investors are better able to analyze financial statements prepared under accounting standards that

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[6] Malloy (2005) uses U.S. data to examine whether an analyst's physical distance from a firm affects forecast accuracy. He finds that analysts located closer to a firm provide more accurate earnings forecasts.

are more similar to the analysts' or investors' home-country accounting standards. Thus, in our setting, we expect that foreign analysts whose home-country accounting standards are more similar to IFRS are more familiar with IFRS, i.e., they have more expertise in analyzing IFRS-type financial statements. Compared with foreign analysts, domestic analysts typically have greater access to alternative information sources that can serve as substitutes for accounting disclosures, so familiarity with IFRS is less likely to affect domestic analysts' earnings information. We thus expect that the adoption effect is greater when foreign analysts are more familiar with IFRS. Stated in the alternative form, our second hypothesis is:

> *H2:*   *Ceteris paribus, the European-wide mandatory adoption of IFRS is associated with a greater improvement in forecast accuracy for foreign analysts relative to domestic analysts when foreign analysts are more familiar with IFRS.*

The adoption effect also likely varies across firms. All else being equal, the reduction in the information advantage of domestic analysts over foreign analysts will vary with the degree of increase in firm's disclosures and the comparability of financial statements following mandatory IFRS adoption. Merely mandating IFRS does not guarantee material changes in firms' actual reporting practices (Ball 2006). The growing reporting incentive literature suggests that firms' financial reporting incentives are more important than accounting standards in determining firms' actual reporting quality (e.g., Ball et al. 2000, 2003; Leuz 2003; Burgstahler et al. 2006; Lang et al. 2006). Actual compliance with IFRS is likely an endogenous function of local economic and political institutions that influence the reporting incentives of managers. If mandatory adopters already optimized their financial reporting strategies under their domestic standards, they may have little incentives to rigorously implement the exogenously imposed IFRS (Ball 2006). Firms' lack of incentive to implement IFRS can be exacerbated by the weak enforcement regimes in many EU countries. For example, firms can exploit the discretion afforded by IFRS (e.g., by opportunistically selecting recognition and valuation rules) or, in the extreme, simply not comply with certain IFRS requirements and adopt IFRS in name only (e.g.,

by omitting or providing uninformative footnote disclosures), resulting in little change in firms' actual reporting practices.

Strong enforcement can mitigate firms' lack of incentives by forcing firms to comply with the accounting and disclosure rules prescribed by IFRS. Prior studies document that enforcement plays an important role in determining firms' compliance with accounting standards (e.g., Ball et al. 2003; Leuz et al. 2003; Burgstahler et al. 2006; Holthausen 2009). In the case of mandatory IFRS adoption, prior studies find that the related capital market benefits (Daske et al. 2008, Li 2010) and improved information environment (Byard et al. 2010) are concentrated among firms based in countries with strong enforcement environments.[7]

Additionally, mandatory IFRS adoption should have little effect on firms domiciled in countries where the domestic accounting standards are already similar to IFRS (e.g., the UK). For these firms, even if properly implemented, the changes mandated by IFRS would be small (e.g., see Ding et al. 2007; Bae et al. 2008b).

Based on the above discussion, we identify firms that are likely to experience the most significant increases in disclosures and comparability after mandatory IFRS adoption as those firms domiciled in countries with *both* domestic accounting standards that differ significantly from IFRS and strong enforcement environments. Our third hypothesis, stated in the null, is:

> *H3:*   *Ceteris paribus, the association between the mandatory European-wide adoption of IFRS and the improvement in forecast accuracy for foreign analysts familiar with IFRS relative to domestic analysts is greater for firms domiciled in countries with both a strong enforcement regimes and domestic accounting standards that differ significantly from IFRS.*

A maintained assumption underlying our hypotheses is that mandatory IFRS adoption results in an increase in disclosure and comparability. Although recent empirical evidence provides support for this assumption (e.g., Daske et al. 2008; Byard et al. 2010), this is not a foregone conclusion. Arguments can be made that mandatory IFRS adoption could potentially result in a decrease in firms' reporting quality. Specifically, each country's domestic accounting

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[7] However, as long as financial reporting standards allow for discretion and firms have differing reporting incentives, strong enforcement will not eliminate all variations in reporting quality across firms (Leuz 2006).

standards evolved in conjunction with and as an integral part of the country's institutional setting, and thus may provide a better fit with the local institutional setting (Ball 2006). Forcing firms to convert to the "one size fits all" IFRS could, thus, result in a decrease in reporting quality. If this alternative scenario were true, then mandatory IFRS adoption would not improve foreign analysts' forecast accuracy relative to domestic analysts.

III. SAMPLE SELECTION AND RESEARCH DESIGN

Sample Selection

European firms subject to mandatory IFRS adoption were required to switch to IFRS for fiscal years beginning on or after January 1, 2005. Our sample period spans two reporting regimes: a *pre*-adoption period (i.e., the last two fiscal years when a firm reported in its domestic accounting standards) and a *post*-adoption period (i.e., the first two fiscal years when a firm reported in IFRS). For example, for a December year-end firm, the *pre*-adoption period includes fiscal years 2003 and 2004, while the *post*-adoption period includes fiscal years 2005 and 2006.

We begin by using the IBES international (split unadjusted) database to identify all European firms that have at least one analyst who issues annual earnings forecasts for the same firm during both the two-year *pre*-adoption period and the two-year *post*-adoption period.[8] For each analyst-firm pair, we retrieve all of the analyst's annual earnings forecasts issued during the twelve-month period prior to each year-end, and retain only the last forecast if the analyst issued more than one forecast for that year. We also require that annual earnings announcements be made no later than 240 calendar days after the fiscal year-end. This sample selection criteria results in a constant set of analysts forecasting earnings for the same set of European firms under two different reporting regimes, where each analyst issued at least one earnings forecast for the same firm in both the *pre*- and *post*-adoption periods. We exclude firms that voluntarily adopted

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[8] Our sample includes EU member countries, as well as two non-member countries: Norway and Switzerland. Both of these countries adopt many EU regulations, including mandatory IFRS adoption (see Daske et al. 2008; Armstrong et al. 2010). Our results are robust to excluding those two countries.

IFRS prior to the mandatory adoption. We use both the Global Compustat and Datastream/Worldscope databases to retrieve data for firms' accounting standards. If these two databases provide conflicting data as to which accounting standards a firm used in a particular year, we hand-checked the auditor's report in the firm's annual report for that year. To mitigate confounding factors, we also eliminate firms that were cross-listed as American Deposit Receipts (ADRs) and firms that changed their country of domicile or primary exchange listing during the sample period.[9] This results in a sample of 1,168 European-based mandatory IFRS adopters that are followed by a constant set of 2,819 unique analysts.

For each analyst-firm pair, we classify the analyst as "domestic" or "foreign" with respect to the firm she follows. If the analyst is based in the same country as (a different country from) the firm, we classify the analyst as "domestic" ("foreign"). Since analysts' country locations are not available in any electronic database, we hand-collect this information for our four-year sample period. Specifically, we first retrieve from the IBES database the names of all analysts in our sample and the names of their brokerage firms. We then hand-match these analysts with *Nelson's Directory of Investment Research*, and retain only those analysts where we are able to match both the analyst's name and the brokerage firm's name; we exclude duplicate matches. For the matched analysts, we hand-collect their business location from *Nelson's Directory of Investment Research*, which lists analysts' primary business location as of November of each year. We classify an analyst's location for year *t* based upon information from *Nelson's Directory* for year *t-1*. Using this approach, we are able to identify the primary business location of 1,132 analysts. Our final sample consists of 4,303 analyst-firm observations, representing 1,132 analysts and 964 firms.

< Insert Table 1 About Here >

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[9] Non-U.S. firms cross-listed on U.S. exchanges as ADRs were required to reconcile their non-U.S. GAAP financial statements with U.S. GAAP during our sample period. We identify these firms using ADR databases from the Bank of New York and Citibank.

In Table 1, the first two columns present the country distributions of the 964 firms and 1,132 analysts represented in our final sample. The firms are domiciled in over 20 European countries, with heavy concentrations in the UK (339 firms, 35.17-percent of the sample), France (148 firms, 15.35-percent of the sample), and Italy (83 firms, 8.61-percent of the sample). The majority of analysts are also located in Europe, with heavy concentrations in the UK (35.25-percent), France (15.72-percent), and Germany (10.51-percent).[10]

Of the 4,303 analyst-firm pairs in our sample, 3,376 (78.5-percent) represent pairs where the analyst is located in the same country as the firm (i.e., a domestic analyst), while 927 (21.5-percent) pairs represent cases where the analyst is located in a different country from the firm (i.e., a foreign analyst). The greater prevalence of domestic analysts is consistent with prior research which suggests that analysts mainly follow domestic firms (Bae et al 2008a). Of the 964 firms in our sample, only 255 firms are followed by both domestic and foreign analysts. Following Orpurt (2004) and Bae et al. (2008b), we conduct our main analyses using cross-sectional tests, where we use all available observations to compare domestic and foreign analysts. Then, in further analysis (see Section V), we conduct within-firm comparisons of domestic and foreign analysts using the 255 firms followed by both domestic and foreign analysts.

Testing the Average Effect of Mandatory IFRS Adoption (H1)

For each analyst-firm pair, we calculate the change in the analyst's forecast accuracy between the *pre-* and *post*-adoption periods. Specifically, we first calculate analyst *i*'s forecast accuracy for firm *j* in year *t* ($ACCURACY_{ijt}$) as the *negative* of the analyst's price-scaled absolute forecast error: $ACCURACY_{ijt} = - (|Actual_{jt} - Forecast_{ijt}| / Stock\ Price_{jt})$, where $Actual_{jt}$ is the actual annual EPS from the IBES database for firm *j* in year *t*; $Forecast_{ijt}$ is analyst *i*'s earnings forecast for firm *j* in year *t*; and $Stock\ Price_{jt}$ is the stock price of firm *j* at the beginning of year *t*.

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[10] Our results are robust to excluding the small number of analysts located in non-European countries (e.g., the United States and South Africa).

We then calculate analyst i's average accuracy for firm j in the *pre-* and *post*-adoption periods, respectively. The change in analyst i's average forecast accuracy for firm j ($\Delta ACCURACY_{ij}$) is the difference in analyst i's average forecast accuracy for firm j between the *pre-* and *post*-adoption periods.

To compare the change in forecast accuracy across domestic and foreign analysts, we create an indicator variable ($FOREIGN_{ij}$) to differentiate between domestic and foreign analysts: $FOREIGN_{ij}$ equals one (zero) if analyst i is a foreign (domestic) analyst for firm j. We test H1 by estimating the following model:

$$\Delta ACCURACY_{ij} = \alpha_0 + \alpha_1 FOREIGN_{ij} + \alpha_2 \Delta LogSIZE_j + \alpha_3 \Delta LogFOLLOW_j$$
$$+ \alpha_4 \Delta LogHORIZON_{ij} + \varepsilon_{ij} \ . \tag{1}$$

H1 predicts that mandatory IFRS adoption is associated with an incremental increase in forecast accuracy for foreign analysts relative to domestic analysts, i.e., $\alpha_1 > 0$.

We include three control variables in Equation (1): the change in firm size (i.e., $\Delta LogSIZE_j$); the change in the number of analysts following a firm ($\Delta LogFOLLOW_j$); and the change in each analyst's forecast horizon ($\Delta LogHORIZON_{ij}$). Forecast horizon is the number of days between the forecast issue date and the earnings announcement date. Since Equation (1) is a change regression, the three control variables are also in change forms. Larger firms and firms with greater analyst following tend to have richer public information environments (see Bhushan 1989; Lys and Soo 1990). A richer public information environment is likely associated with a smaller information advantage for domestic analysts over foreign analysts. We control for the change in forecast horizon, because earnings forecasts made closer to earnings announcement dates tend to be more accurate (e.g., Clement 1999), so an analyst may appear to be more accurate in the *post*-adoption period simply because her average forecast horizon is shorter in the *post*-adoption period than the *pre*-adoption period.

To measure the change in firm size for firm j, we first calculate the beginning-of-the-year market capitalization in U.S. dollars (using the exchange rate in effect at the beginning of the

year) for each of the four sample years, and then calculate $\Delta LogSIZE_j$ as the difference in the log of average market capitalization between the *pre-* and *post*-adoption periods for firm *j*. We calculate the number of analysts following a firm as the total number of analysts who forecast earnings for a firm, not just the constant set of analysts who follow the firm in both the *pre-* and-*post*-adoption periods in our sample. $\Delta LogFOLLOW_j$ is the difference in the log of the average number of analysts following firm *j* between the *pre-* and *post*-adoption period. To calculate the change in analyst *i*'s forecast horizon for firm *j*, we first calculate the analyst's average forecast horizon for the *pre-* and *post*-adoption periods, respectively, and calculate $\Delta LogHORIZON_{ij}$ as the difference in the log of average horizon between the two periods.

Testing the Effect of Mandatory IFRS Adoption Conditional on Foreign Analysts' Familiarity with IFRS (H2)

Following prior research (e.g., Bradshaw et al. 2004; Bae et al. 2008a), we gauge a foreign analyst's familiarity with IFRS using the degree to which the accounting standards of the analyst's home country differ from IFRS. This approach assumes that analysts are primarily familiar with their domestic accounting standards; as a result, analysts based in countries with accounting standards more similar to IFRS should be more familiar with IFRS-type reporting. This assumption is reasonable because the majority of firms that analysts follow are domestic firms, and analysts rarely change their country location (Bae et al 2008a). In our sample, over 80% of firms followed by a typical analyst are domestic firms.[11]

To measure the difference between a country's accounting standards and IFRS, we use the *gaapdiff1* measure of Bae et al. (2008a, Table 1). This is a comprehensive measure designed to capture differences between a country's domestic accounting standards and IFRS along 21 key

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[11] An alternative measure of a foreign analyst's familiarity with IFRS is the percentage of firms in the analyst's portfolio that use IFRS in the *pre*-adoption period. We do not use this alternative measure, because it ignores important country-level differences in accounting standards. For example, a German analyst and a UK analyst can have the same portfolio composition (e.g., 90% domestic firms and 10% firms that use IFRS) in the *pre*-adoption period, but substantially different expertise in analyzing IFRS-based financial statements. The UK analyst likely is more familiar with IFRS-type reporting than the German analyst, because UK accounting standards are very similar to IFRS while German accounting standards are significantly different from IFRS (see Table 1).

accounting items.[12] We re-label this measure *IFRSdiff* to emphasize that this measure captures differences from IFRS. Table 1, Column 3 presents *IFRSdiff* scores for the home countries of all the analysts in our sample. Higher values of *IFRSdiff* indicate greater differences between a country's accounting standards and IFRS. For the analysts' home-countries in our sample, *IFRSdiff* scores range from 1 (the UK) to 18 (Luxembourg), with a median value of 11.

We categorize foreign analysts into two groups based on their home-country *IFRSdiff* scores. Foreign analysts familiar (unfamiliar) with IFRS are those analysts based in countries with domestic accounting standards relatively similar to (different from) IFRS, i.e., *IFRSdiff* < 11 (*IFRSdiff* ≥ 11). Accordingly, we create two dummy variables to identify these two different types of foreign analysts: $FOREIGN\_FAMILIAR_{ij}$ equals 1 if the foreign analyst *i* following firm *j* is familiar with IFRS, and 0 otherwise; on the other hand, $FOREIGN\_UNFAMILIAR_{ij}$ equals 1 if foreign analyst *i* following firm *j* is unfamiliar with IFRS, and 0 otherwise. To test H2, we estimate the following model:

$$\Delta ACCURACY_{ij} = \beta_0 + \beta_1 FOREIGN\_FAMILIAR_{ij} + \beta_2 FOREIGN\_UNFAMILIAR_{ij}$$
$$+ \beta_3 \Delta LogSIZE_j + \beta_4 \Delta LogFOLLOW_j + \beta_5 \Delta LogHORIZON_{ij} + \varepsilon_{ij} \qquad (2)$$

where the subscript *i* refers to analyst *i* and the subscript *j* refers to firm *j*. The control variables are the same as in Equation (1). A significantly positive β_1 (β_2) indicates a significant incremental improvement in forecast accuracy relative to domestic analysts for those foreign analysts who are familiar (unfamiliar) with IFRS. Since H2 predicts that the adoption effect is stronger when foreign analysts are more familiar with IFRS, we expect that $\beta_1 > \beta_2$.

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[12] Bae et al.'s (2008) metric is more up-to-date and comprehensive than some alternative measures (see Ashbaugh and Pincus 2001; Hung 2001; Ding et al. 2007). For example, the Ashbaugh and Pincus' (2001) index is based on IAS standards prior to 1994, while the Hung (2001) index focuses only on differences in the use of accrual accounting. Similarly, the alternative indices of Ding et al. (2007) are not available for all the EU member countries in our sample. Bae et al.'s measure is also adopted by Daske et al. (2008) and Byard et al. (2010).

Testing the Effect of Mandatory IFRS Adoption Conditional on Country-level Institutional Characteristics (H3*)

To test H3, we first identify firms likely to experience the most significant increase in disclosures and comparability following mandatory IFRS adoption, i.e., firms domiciled in countries with both domestic accounting standards that are substantially different from IFRS and strong legal enforcement environments. Consistent with prior research (Daske et al. 2008; Byard et al. 2010), we use the 2005 value of Kaufmann et al.'s (2007) "rule of law" variable to capture the quality of countries' enforcement environments, denoted *ENFORCE*.[13] Column 4 of Table 1 shows the values of *ENFORCE* for the countries of domicile of our sample firms. Higher values of *ENFORCE* represent countries with stronger legal and enforcement environments. It is well known that EU countries vary substantially in their economic and political institutions, including enforcement regimes (Ball 2006). In our sample, the minimum (maximum) value of *ENFORCE* is 0.3 (2.0) for Poland (Switzerland), with a sample median of *1.6*. As discussed above, we use *IFRSdiff* to measure the extent to which a country's domestic accounting standards differ from IFRS (Column 3 of Table 1). The median value of *IFRSdiff* for the countries of domicile of our sample firms is *11*.[14]

< Insert Table 2 About Here >

We partition our sample of 964 European mandatory adopters into country groups based upon whether the values of *IFRSdiff* and *ENFORCE* for a firm's country of domicile exceed the median values of these two variables for our sample. As shown in Table 2, this partitioning divides our sample into three country groups of firms: (1) a *HH* group that includes firms domiciled in countries with strong enforcement and domestic accounting standards that differ considerably from IFRS (*ENFORCE* ≥ 1.6 and *IFRSdiff* ≥ 11); (2) a *HL* group that includes

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[13] Our results are robust to using the following alternative proxies for *ENFORCE*: (1) the Kaufmann et al. (2007) "rule of law" score for 2004, 2005, 2006, or the average of the three years from 2004 to 2006; (2) the "governance effectiveness" score, the "regulatory quality" score, or the average of six governance scores for 2005 from Kaufmann et al. (2007); or (3) the mean of the three law enforcement variables from La Porta et al. (1998), as used by Leuz et al. (2003).

[14] Table 1, Column 3 presents the *IFRSdiff* scores for all countries in our sample, including firms' countries of domicile and analysts' home countries. Note that 11 is the median value for each of these two different country samples: the sample of all firms' countries of domicile, and the sample of all analysts' home countries.

firms domiciled in countries with strong enforcement and domestic accounting standards that are relatively similar to IFRS ($ENFORCE \geq 1.6$ and $IFRSdiff < 11$); and (3) a *LH* group that includes firms domiciled in countries with weak enforcement and domestic accounting standards that differ considerably from IFRS ($ENFORCE < 1.6$ and $IFRSdiff \geq 11$). For our sample, no country has below-median values for both *ENFORCE* and *IFRSdiff* (i.e., $ENFORCE < 1.6$ and $IFRSdiff < 11$). Table 2 shows the distribution of firms across these three country groups. Of the 964 sample firms, 100 firms are domiciled in *HH* countries, 365 firms are domiciled in *LH* countries, and the remaining 499 firms are domiciled in *HL* countries.

To test H3, we estimate Equation (2) separately for each of the three country groups. H3 predicts that the improvement in forecast accuracy for foreign analysts familiar with IFRS relative to domestic analysts (i.e., β_1) is larger for the *HH* group than for the other two groups.

IV. RESULTS

Descriptive Statistics

Table 3 provides descriptive statistics for our constant analyst-firm sample across the *pre*- and *post*-adoption periods. In the *pre*-adoption period, average forecast accuracy is higher for domestic analysts (-0.026) than for foreign analysts (-0.030); the difference is also statistically significant ($p < 0.05$, two-tailed; untabulated). This result confirms the prior finding that domestic analysts issue more accurate earnings forecasts than foreign analysts (e.g., Bae et al. 2008a).

For all analysts, the mean (median) level of forecast accuracy increases from -0.028 (-0.012) in the *pre*-adoption period to -0.017 (-0.007) in the *post*-adoption period; this increase is statistically significant ($p < 0.01$, two-tailed, for both a *t*-test and a signrank test). We further partition analysts into four groups: domestic analysts, all foreign analysts, the subsample of foreign analysts who are familiar with IFRS, and the subsample of foreign analysts who are unfamiliar with IFRS. The results indicate an improvement in forecast accuracy for all four groups of analysts.

Table 3 also compares the change in forecast accuracy (*ΔACCURACY*) across these different groups of analysts. Based on a ranksum test, forecast accuracy increases more for foreign analysts than for domestic analysts (*p*<0.001, two-tailed). Further, we compare *ΔACCURACY* across domestic analysts and the two subsets of foreign analysts (foreign analysts familiar with IFRS, and foreign analysts unfamiliar with IFRS). We find that only foreign analysts familiar with IFRS experience a greater improvement in forecast accuracy than domestic analysts (*p*<0.001, two-tailed, for a ranksum test), while the improvement in forecast accuracy for foreign analysts unfamiliar with IFRS is not statistically different from that for domestic analysts. Overall, the results from these univariate comparisons provide some preliminary evidence in support of our first two hypotheses. However, these univariate tests should be interpreted with caution as they do not control for other variables that potentially affect the change in forecast accuracy (e.g., changes in forecast horizons).

Table 3 also presents summary statistics for the levels of the three control variables in Equations (1) to (2)—*LogFOLLOW*, *LogSIZE*, and *LogHORIZON*—for both the *pre-* and *post-*adoption periods. The univariate comparisons confirm that all three control variables increase significantly between the *pre-* and *post-*adoption periods (*p*<0.01, two-tailed, for all). These results highlight the importance of controlling for the changes in these variables when examining the effect of mandatory IFRS adoption on the change in analysts' forecast accuracy.

< Insert Table 3 About Here >

The Results of Testing the Average Effect of Mandatory IFRS Adoption (H1)

Table 4 reports the results of estimating Equation (1) using our entire sample of 4,303 analyst-firm observations. We cluster on firms to adjust for heteroskedasticity and correlation for observations for the same firm (Rogers 1993). The coefficient on *FOREIGN* is positive (0.0024) and statistically significant at the 10% level (one-tailed *p*=0.078). Thus, we find some evidence in support of H1: on average, mandatory IFRS adoption is associated with an improvement in forecast accuracy for foreign analysts relative to domestic analysts.

< Insert Table 4 About Here >

The results for the control variables are largely consistent with prior research. The coefficient on *ΔLogSIZE* is significantly positive (0.0150, two-tailed *p*=0.018), indicating that forecast accuracy improves when firm size increases. The coefficient on *ΔLogHORIZON* is significantly negative (-0.0039, two-tailed *p*=0.002), indicating that forecast accuracy decreases as forecast horizon increases (i.e., an increase in the number of days between the forecast issue date and the earnings announcement date).

The Results of Testing the Effect of Mandatory IFRS Adoption Conditional on Foreign Analysts' Familiarity with IFRS (H2)

Table 5 reports the results of estimating Equation (2). The coefficient on *FOREIGN_FAMILIAR* is positive and statistically significant (0.0041, one-tailed *p* = 0.010), indicating an improvement in forecast accuracy for foreign analysts familiar with IFRS relative to domestic analysts. In contrast, the change in forecast accuracy does not differ between foreign analysts unfamiliar with IFRS and domestic analysts: the coefficient on *FOREIGN_UNFAMILIAR* is not statistically different from zero (0.0002, two-tailed *p* = 0.913). Thus, our evidence indicates that mandatory IFRS adoption reduces the information advantage of domestic analysts over foreign analysts, but only for the sub-set of foreign analysts who are familiar with IFRS.

< Insert Table 5 About Here>

To test H2, we compare the coefficients on *FOREIGN_FAMILAR* and *FOREIGN_UNFAMILAR*: the coefficient on *FOREIGN_FAMILAR* is significantly greater than that for *FOREIGN_UNFAMILAR* (one-tailed *p* = 0.027), providing evidence supporting H2. Our evidence thus suggests that mandatory IFRS adoption reduces domestic analysts' information advantage over foreign analysts to a greater degree when foreign analysts are more familiar with IFRS.

**The Results of Testing the Effect of Mandatory IFRS Adoption Conditional on Countries'
Institution Characteristics (H3)**

Recall that, in Table 2, we partition our sample of 964 European mandatory adopters into
three country groups – *HH*, *LH*, and *HL* – based upon two country-level institutional
characteristics: the strength of legal enforcement (*ENFORCE*) and the difference between
domestic accounting standards and IFRS (*IFRSdiff*). Table 6 reports the results of estimating
Equation (2) separately for these three country groups of firms.

We find that the earlier evidence on H2 (reported in Table 5) are driven by the *HH* group
– the coefficient on *FOREIGN_FAMILIAR* is significantly positive for the *HH* group only, but
not for the other two groups. That is, foreign analysts familiar with IFRS experience an
improvement in forecast accuracy relative to domestic analysts only for mandatory adopters
domiciled in the *HH* countries; these are the firms most likely to implement substantial changes
to their financial reporting practices following mandatory IFRS adoption.

For the *HH* group, while the coefficient on *FOREIGN_FAMILIAR* is significantly
positive (0.0018, one-tailed *p*=0.018), the coefficient on *FOREIGN_UNFAMILIAR* is
statistically insignificant. This suggests that, in the *HH* countries, foreign analysts familiar with
IFRS experience an incremental improvement in forecast accuracy relative to domestic analysts;
however, such an incremental improvement in forecast accuracy does not exist for foreign
analysts unfamiliar with IFRS.

< Insert Table 6 About Here >

To test H3, we estimate Equation (2) for all three country groups in a Seemingly
Unrelated Regression (SUR) system, and test the difference in coefficients across the three
groups. The bottom of Table 6 presents the results comparing the coefficient on
FOREIGN_FAMILIAR across the three country groups. We find that the coefficient on
FOREIGN_FAMILIAR for the *HH* group is significantly greater than that for either the *LH* (one-
tailed *p* = 0.069) or *LH* (one-tailed *p* = 0.030) group. These results support H3 that the adoption

effect is greater for firms domiciled in countries with strong enforcement and accounting standards that differ considerably from IFRS, i.e., the *HH* group, than the *HL* or *LH* group.

Overall, the results indicate that the incremental improvement in forecast accuracy relative to domestic analysts for those foreign analysts familiar with IFRS is concentrated among firms domiciled in the *HH* countries. These findings are consistent with recent evidence that mandatory IFRS adoption is more likely to result in substantial changes in financial reporting for firms domiciled in countries with stronger enforcement environments and domestic standards that differ more from IFRS (e.g., Daske et al. 2008; Byard et al. 2010; Li 2010).

V. FURTHER ANALYSIS USING A WITHIN-FIRM DESIGN

Our results in Section IV are based on cross-sectional tests comparing domestic and foreign analysts. In this section, we investigate the robustness of these results to within-firm comparisons of domestic and foreign analysts. The cross-sectional and within-firm tests each have their strengths and weaknesses. The cross-sectional tests have more power because they utilize all available observations. However, since not every firm is followed by both domestic and foreign analysts, domestic and foreign analysts are not always compared within the same firms. As a result, the findings can be confounded by differences in firms that attract different types of analyst following. The within-firm matching of domestic and foreign analysts controls for differences in firm characteristics, but has lower test power due to the smaller sample size.

For the within-firm analyses, we retain only firms that are followed by at least one domestic analyst and at least one foreign analyst. This results in a sample of 255 firms. If a firm has more than one domestic analyst, we take the average of the change in forecast accuracy (*ΔACCURACY*) across all domestic analysts; similarly, we also average across all foreign analysts. This procedure avoids giving undue weight to firms followed by a larger number of analysts. Then, for each firm, we compute the difference in the change in forecast accuracy between foreign and domestic analysts, i.e., *DIFF_ΔACCURACY = (ΔACCURACY* for foreign

analysts − *ΔACCURACY* for domestic analysts). Note there are 255 observations for *DIFF_ΔACCURACY*, one for each firm.

< Insert Table 7 About Here >

The results are reported in Table 7. Cell (A,1) compares domestic and foreign analysts for all 255 firms. The mean of *DIFF_ΔACCURACY* is 0.002, statistically positive at $p<0.10$, one-tailed; the median is 0.000 and not statistically significant. Thus, the results provide some support for H1 that foreign analysts experience an improvement in forecast accuracy relative to domestic analysts.

Cell (B,1) compares domestic analysts with foreign analysts familiar with IFRS. To conduct this test, we retain only firms that are followed by at least one domestic analyst and at least one foreign analyst familiar with IFRS, which results in a sample of 184 firms.[15] Similarly, Cell (C,1) compares domestic analysts with foreign analysts who are unfamiliar with IFRS using the 159 firms with at least one domestic analyst and at least one foreign analyst unfamiliar with IFRS. The results are consistent with the earlier results for H2 reported in Table 5. Cell (B,1) shows that for foreign analysts familiar with IFRS, mean (median) of *DIFF_ΔACCURACY* is 0.005 (0.001), significantly greater than zero at the 0.01 (0.01) level, one-tailed, indicating that foreign analysts familiar with IFRS experience an improvement in forecast accuracy relative to domestic analysts. In contrast, Cell (C,1) shows no evidence of a difference in the change in forecast accuracy between foreign analysts unfamiliar with IFRS and domestic analysts. Consistent with H2, *DIFF_ΔACCURACY* is significantly more positive in Cell (B,1) than in Cell (C,1), as shown at the bottom of Table 7. The results indicate that the relative improvement in forecast accuracy is greater for foreign analysts familiar with IFRS than for foreign analysts unfamiliar with IFRS.

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[15] Of the 255 firms followed by both domestic and foreign analysts, 96 firms are followed only by domestic analysts and foreign analysts who are familiar with IFRS, 71 firms are followed only by domestic analysts and foreign analysts unfamiliar with IFRS, and the remaining 88 firms are followed by all three analyst groups: domestic analysts, foreign analysts familiar with IFRS, and foreign analysts unfamiliar with IFRS. Thus, we have 184 (=96+88) firms in Row B, and we have 159 (=71+88) firms in Row C.

To test H3, we focus on Row B – the 184 firms followed by at least one domestic analyst and at least one foreign analyst familiar with IFRS. In Cells (B,2), (B,3) and (B,4), we partition these 184 firms into three country groups (i.e., *HH*, *HL*, and *LH*) based on the two country-level institutional characteristics: *ENFORCE* and *IFRSdiff*. Cell (B,2) shows that, for the *HH* group (i.e., firms domiciled in countries with both strong enforcement and domestic accounting standards that differ significantly from IFRS), mean and median *DIFF_ΔACCURACY* are both significantly positive (p <0.01, one-tailed), indicating that foreign analysts familiar with IFRS experience an improvement in forecast accuracy relative to domestic analysts. In contrast, Cells (B,3) and (B,4) show no statistically significant improvement for the other two country groups. To test H3, we compare *DIFF_ΔACCURACY* across these three country groups. The results are shown at the bottom of Table 7. We find that both the mean and median of *DIFF_ΔACCURACY* for the *HH* country group (see Cell (B,2)) are significantly greater than for either the *HL* group (see Cell (B,3)) or the *LH* group (see Cell (B,4)), providing support for H3. These results confirm our cross-sectional results on H3 presented in Table 6.

In summary, the results from these within-firm analyses are consistent with our earlier results from our cross-sectional analyses. These results increase our confidence that our results are unlikely to be driven by some correlated omitted variable(s).

VI. CONCLUSION

This study examines whether the European-wide mandatory adoption of IFRS in 2005 levels the informational playing field between foreign and domestic analysts. Specifically, we examine whether the adoption improves foreign analysts' forecast accuracy relative to domestic analysts. Using a sample of analysts who forecasted earnings for the same set of mandatory IFRS adopters in both *pre-* and *post*-adoption periods, we find some evidence of an improvement in forecast accuracy for foreign analysts relative to domestic analysts. However, the relative improvement varies substantially across analysts and across firms. First, partitioning foreign analysts based on their familiarity with IFRS, we find that only foreign analysts familiar with

IFRS exhibit an improvement in forecast accuracy relative to domestic analysts; we find no such improvement for foreign analysts unfamiliar with IFRS. Second, further partitioning our sample firms based on country-level institutional factors, we find that the improvement in forecast accuracy for foreign analysts familiar with IFRS relative to domestic analysts is concentrated among firms domiciled in countries with both domestic accounting standards that differ considerably from IFRS and strong enforcement regimes, i.e., where the requirements by IFRS adoption are likely to be both substantial and rigorously implemented.

Our results should be of interest to policy-makers who expect mandatory IFRS adoption to increase cross-border investment (e.g., see EC Regulation 1601/2002; McCreevy 2005). Our results suggest that mandatory IFRS adoption helps level the informational playing field between foreign and domestic investors, which should in turn reduce investors' home bias and encourage cross-border investment. However, our results also suggest that the effect of mandatory IFRS adoption is unlikely to be uniform across investors and across countries. Our results highlight that both investors' familiarity with IFRS and countries' enforcement environments play important roles in determining the extent to which mandatory IFRS adoption levels the informational playing field between foreign and domestic investors.

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TABLE 1
Sample Description

Our sample consists of European-domiciled firms that switched from using domestic accounting standards to IFRS as a result of the mandatory European-wide adoption of IFRS effective for fiscal years beginning on or after January 1, 2005. We identify our sample firms using data on firms' accounting standards from both Compustat and Datastream/Worldsocpe. When these two databases provide conflicting information as to a firm's accounting standards, we hand-check firms' annual reports. Using IBES data, we identify individual analysts who forecast earnings for these firms in both the two-year *pre*-adoption and *post*-adoption periods; this provides a constant analyst-firm sample. We then identify the country location of these individual analysts using both analysts' names and the names of analysts' brokerage firm employers. Using the brokerage house affiliations we are able to identify, we hand-match these analyst-broker name combinations with brokerage firm listings in *Nelson's Directory of Investment Research* for the period 2003-2006. The brokerage house listings in *Nelson's Directory of Investment Research* include the name of each individual analyst employed by a broker firm and the analyst's primary business location, i.e., the brokerage firm office where the analyst is based. Using this approach we are able to identify the primary business location of 1,132 individual analysts, approximately about 40-percent of the 2,819 analysts we originally identify. The primary business location of these 1,132 unique analysts is listed in column (2). We partition foreign analysts and firms using the GAAP difference (*IFRSdiff*) measure from Bae et al. [2008, Table 1]. We also partition firms using the law enforcement measure (*ENFORCE*) from Kaufmann et al. [2007]. *IFRSdiff* measures differences between countries' domestic accounting standards and IFRS along 21 key accounting items; higher values of *IFRSdiff* indicate greater differences between domestic accounting standards and IFRS. *ENFORCE* is a measure of the quality of a country's legal and enforcement regime. Higher values of *ENFORCE* represent countries with stronger legal and enforcement regimes.

Country	# of firms (1)	# of Analysts (2)	Difference b/w Domestic Acc. Stds and IFRS (*IFRSdiff*) (3)	Enforcement Environment (*ENFORCE*) (4)
Austria	1	1	12	1.8
Belgium	32	21	13	1.4
Czech Republic	1	2	14	0.7
Denmark	27	22	11	1.9
Finland	30	26	15	1.9
France	148	178	12	1.3
Germany	23	119	11	1.7
Greece	30	19	17	0.7
Hungary	1	2	13	0.7
Ireland	24	16	1	1.6
Italy	83	47	12	0.5
Luxembourg	1		18	1.9
Netherlands	41	59	4	1.7
Norway	50	39	7	1.9
Poland	4	2	12	0.3
Portugal	5	1	13	1.1
Spain	61	57	16	1.1
Sweden	45	62	10	1.8
Switzerland	18	39	12	2.0
United Kingdom	339	399	1	1.6
Non-European Countries[1]:				
Brazil		1	11	
Korea		1	6	
Malaysia		1	8	
South Africa		3	0	
United States		15	1	
Total:	964	1,132	*Median:* 11	1.6

[1] A small number of analysts (21) are based in non-European countries. These non-European based analysts also forecast earnings for our sample European firms that are subject to mandatory IFRS adoption. We include these analysts in our analysis; however, our inferences are unaffected if we exclude these analysts.

TABLE 2
Distribution of Firms & Analysts by Country-Level Institutions:
Partitioning on Median Values of *ENFORCE* and *IFRSdiff*

We partition our sample firms based on the median values of *IFRSdiff* and *ENFORCE*, which are 11 and 1.6 respectively. This partitioning scheme divides our sample firms into three different country groups: (1) a *High ENFORCE-High IFRSdiff* group (a *HH* group); (2) a *Low ENFORCE-High IFRSdiff* group (a *LH* group); and (3) a *High ENFORCE-Low IFRSdiff* group (a *HL* group).

	High ENFORCE (i.e., ENFORCE ≥ 1.6)		Low ENFORCE (i.e., ENFORCE < 1.6)	
High IFRSdiff (i.e., IFRSdiff ≥ 11)	**HH Group** Austria, Denmark, Finland, Luxembourg, Germany, and Switzerland		**LH Group** Belgium, Czech Republic, France, Greece, Hungary, Italy, Poland, Portugal, and Spain	
	# of firm-analyst:	435	# of firm-analyst:	1,676
	# of Firms:	100	# of Firms:	365
	# of Analysts:	287	# of Analysts:	521
Low IFRSdiff (i.e., IFRSdiff < 11)	**HL Group** Ireland, the Netherlands, Norway, Sweden, and the United Kingdom		None	
	# of firm-analyst:	2,192		
	# of Firms:	499		
	# of Analysts:	649		

TABLE 3
Descriptive Statistics: *Pre-* and *Post-* Mandatory IFRS Adoption Periods

We match individual analysts who forecast earnings for the same firm across the *pre-* and *post*-adoption periods. $ACCURACY_{ijt}$ is a measure of the accuracy of analyst i's price-scaled absolute forecast error for firm j in period t, multiplied by -1, to convert to an accuracy measure, i.e., $ACCURACY_{ijt}$ = -1 x ($|Actual_{jt} - Forecast_{ijt}|/Stock\ Price_{jt}$), where $Actual_{jt}$ is actual annual EPS from the IBES database for firm j in year t; $Forecast_{ijt}$ is analyst i's last forecast for firm j in year t; and $Stock\ Price_{jt}$ is the stock price of firm j at the start of year t. We calculate the change in each individual analyst's average forecast accuracy ($\Delta ACCURACY$) as the difference between analysts i's average forecast accuracy for firm j in the *pre-* and *post*-adoption periods. *LogFOLLOW* is the log of the total number of analysts following firm j in either the *pre-* or *post*-adoption periods. This includes all analysts following a firm, not just the constant set of analysts who forecast in both the *pre-* and *post*-adoption periods. *LogSIZE* is (the log of) average market capitalization (in US \$) for firm j in either the *pre-* or *post*-adoption periods. *LogHORIZON* is the log of the average number of days between the forecast issuance dates and the earnings announcement dates for analyst $i's$ forecasts for firm j. All variables are winsorized at the 1-percent and 99-percent levels to mitigate the influence of outliers. All *p*-values are two-tailed.

	Number of Observations = 4,303			
	Pre-period (1)	Post-period (2)	Change (3)	Significance of Change (4)
	Mean (Median) [STD]	Mean (Median) [STD]	Mean (Median) [STD]	2-tailed p-values: t-test Signrank
ACCURACY	-0.028 (-0.012) [0.049]	-0.017 (-0.007) [0.029]	0.011 (0.003) [0.043]	<0.001 <0.001
ACCURACY (Domestic Analysts)	-0.026 (-0.011) [0.049]	-0.017 (-0.007) [0.030]	0.011 (0.003) [0.047]	<0.001 <0.001
ACCURACY (All Foreign Analysts)	-0.030 (-0.011) [0.051]	-0.018 (-0.006) [0.025]	0.012 (0.004) [0.028]	<0.001 <0.001
ACCURACY (Foreign Analysts Familiar with IFRS)	-0.031 (-0.011) [0.055]	-0.015 (-0.006) [0.023]	0.014 (0.005) [0.026]	<0.001 <0.001
ACCURACY (Foreign Analysts Unfamiliar with IFRS)	-0.030 (-0.011) [0.045]	-0.020 (-0.007) [0.027]	0.009 (0.002) [0.029]	<0.001 <0.001
LogFOLLOW	2.628 (2.792) [0.825]	2.699 (2.833) [0.747]	0.071 (0.030) [0.299]	<0.001 <0.001
LogSIZE	7.150 (7.094) [1.793]	7.579 (7.603) [1.723]	0.429 (0.419) [0.434]	<0.001 <0.001
LogHORIZON	4.954 (4.956) [0.417]	5.027 (5.036) [0.436]	0.073 (0.047) [0.547]	<0.001 <0.001

Comparison of $\Delta ACCURACY$ Across Analyst Groups	*Two-tailed p-values:*	
	t-test	*Ranksum test*
Domestic Analysts vs. All Foreign Analysts	p=0.520	p<0.001
Domestic Analysts vs. Foreign Analysts Familiar with IFRS	p=0.159	p<0.001
Domestic Analysts vs. Foreign Analysts Unfamiliar with IFRS	p=0.579	p=0.616
Foreign Analysts Familiar with IFRS vs. Foreign Analysts Unfamiliar with IFRS	p=0.018	p<0.001

TABLE 4
Testing H1: The Average Effect of Mandatory IFRS Adoption on Domestic Analysts' Local Advantage (Full Sample of All Firms)

The dependent variable is the change in analyst i's absolute forecast error for firm j ($\Delta ACCURACY_{ij}$) between the *pre*- and *post*-adoption periods. *FOREIGN$_{ij}$* is a dummy variable equal to one (zero) if analyst i is a foreign (domestic) analyst with respect to firm j, i.e., analyst i is located in a different country from firm j. The change in firm size ($\Delta LogSIZE_j$) is the change in the log of average market capitalization between the *pre*- and *post*-adoption periods for firm j; $\Delta LogFOLLOW_j$ is the change in the log of the total number of analysts following firm j between the *pre*- or *post*-adoption periods. The change in forecast horizon ($\Delta LogHORIZON_{ij}$) is the change in the log of the average forecast horizon for analyst i's forecasts for firm j between the *pre*- to the *post*-adoption periods.

$$\Delta ACCURACY_{ij} = \alpha_0 + \alpha_1 FOREIGN_{ij} + \alpha_2 \Delta LogSIZE_j + \alpha_3 \Delta LogFOLLOW_j$$
$$+ \alpha_4 \Delta LogHORIZON_{ij} + \varepsilon_{ij} \quad . \tag{1}$$

All continuous variables are winsorized at the 1-percent and 99-percent levels to mitigate the influence of outliers. We cluster on firms to correct for the inflation in standard errors due to multiple observations for the same firm. For coefficients with predicted signs, p-values are one-tailed; for coefficients without predicted signs, p-values are two-tailed. Coefficients significant at 10-percent or better are highlighted in bold.

	Prediction	*Coefficient*	*(p-value)*
Intercept		0.0043	(0.156)
FOREIGN	+	**0.0024**	**(0.078)**
Δlog(SIZE)		0.0150	(0.018)
Δlog(FOLLOW)		-0.0023	(0.554)
Δlog(HORIZON)		-0.0039	(0.002)
Number of Observation		*4,303*	
Adjusted R^2		*0.024*	

TABLE 5
Testing H2: The Effect of Foreign Analysts' Familiarity with IFRS (Full Sample of All Firms)

The dependent variable is the change in analyst i's absolute forecast error for firm j ($\Delta ACCURACY_{ij}$) between the *pre-* and *post-*adoption periods. $FOREIGN\_FAMILIAR_{ij}$ is a dummy variable equal to one if a foreign analyst i following firm j is familiar with IFRS, i.e., she is based in a low *IFRSdiff* country, and zero otherwise. $FOREIGN\_UNFAMILIAR_{ij}$ is a dummy variable equal to one if a foreign analyst i following firm j is unfamiliar with IFRS, i.e., she is based in a high *IFRSdiff* country, and zero otherwise. The change in firm size ($\Delta LogSIZE_j$) is the change in the log of average market capitalization between the *pre-* and *post-*adoption periods for firm j; $\Delta LogFOLLOW_j$ is the change in the log of the total number of analysts following firm j between the *pre-* or *post-*adoption periods. The change in forecast horizon ($\Delta LogHORIZON_{ij}$) is the change in the log of the average forecast horizon for analyst i's forecasts for firm j between the *pre-* to the *post-*adoption periods.

$$\Delta ACCURACY_{ij} = \beta_0 + \beta_1 FOREIGN\_FAMILIAR_{ij} + \beta_2 FOREIGN\_UNFAMILIAR_{ij}$$
$$+ \beta_3 \Delta LogSIZE_j + \beta_4 \Delta LogFOLLOW_j + \beta_5 \Delta LogHORIZON_{ij} + \varepsilon_{ij} \qquad (2)$$

All continuous variables are winsorized at the 1-percent and 99-percent levels to mitigate the influence of outliers. We cluster on firms to correct for the inflation in standard errors due to multiple observations for the same firm. For coefficients with predicted signs, p-values are one-tailed; for coefficients without predicted signs, p-values are two-tailed. Coefficients significant at 10-percent or better are highlighted in bold.

	Prediction	*Coefficient*	*(p-value)*
Intercept		0.0043	(0.155)
FOREIGN_FAMILIAR	+	**0.0041**	**(0.010)**
FOREIGN_UNFAMILIAR		0.0002	(0.913)
Δlog(SIZE)		0.0149	(0.018)
Δlog(FOLLOW)		-0.0024	(0.543)
Δlog(HORIZON)		-0.0039	(0.002)
One-tailed p-value for testing $\beta_1 > \beta_2$		**(0.027)**	
Number of Observation		*4,303*	
Adjusted R^2		*0.025*	

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