Distinguished Lecture Series
School of Accountancy
W. P. Carey School of Business
Arizona State University

Shawn Huang
of
Sam M. Walton College of Business
University of Arkansas
will discuss

"The Role of International GAAP in Cross-Border Mergers and Acquisitions"

on

January 29, 2013

3:30 pm in BA353

The Role of International GAAP in Cross-Border Mergers and Acquisitions

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September 2012

Key Words: Accounting Standards, IFRS, Cross-border Investments, Mergers and Acquisitions, Mandatory IFRS Adoption

We gratefully acknowledge helpful comments and suggestions offered by James Myers, Linda Myers, Raynolde Pereira, and reviewers of the European Accounting Association meeting and the American Accounting Association meeting, as well as the comments of workshop participants at University of Missouri-Columbia, Washington University, and University of Arkansas.

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The Role of International GAAP in Cross-Border Mergers and Acquisitions

Abstract

This study investigates whether differences in accounting standards across countries inhibit firms from investing in foreign markets. Using the frequency and dollar magnitude of cross-border mergers and acquisitions (M&A) from 32 countries over the period 1998-2004, we find that the volume of M&A activity across country pairs is larger for pairs of countries with similar Generally Accepted Accounting Principles (GAAP). Moreover, we find that the takeover premium is higher if target countries' GAAP is similar to that of the acquiring firm's country. This finding is consistent with the notion that similar GAAP reduces information cost, which increases competition among bidders and therefore leaves more gain for target shareholders. We also find that the 2005 mandatory adoption of IFRS attracted more cross-border M&As among IFRS adopting countries, and that this increase in M&A activity within the IFRS countries is more pronounced for country pairs with low degree of similarity in GAAP in the pre-IFRS adoption period. Overall, our results highlight the role of accounting standards in shaping cross-border M&A activity.

Key Words: Accounting Standards, IFRS, Cross-border Investments, Mergers and Acquisitions, Mandatory IFRS Adoption

The Role of International GAAP in Cross-Border Mergers and Acquisitions

1. Introduction

Cross-border mergers and acquisitions (M&A) have grown rapidly since the 1990s (Erel et al. 2011). According to UNCTAD (2000), cross-border M&As constitute 78 percent of the worldwide foreign direct investments. Given the importance of cross-border M&As, academic research has placed increasing interest in investigating the barriers associated with cross-border M&A activities. In this paper, we examine whether differences in accounting standards act as informational barrier that inhibits cross-border M&As by firms. We argue that similar accounting standards impose less information cost on foreign acquirers and enable them to better monitor and value target firms, thereby encouraging acquirers to engage in cross-border mergers and acquisitions. Specifically, if GAAP for two countries is similar, relative to International Accounting Standards (IAS) benchmark, then it would be easier for acquirers to identify value creation opportunities in the other country with less error because of lower information costs and because of enhanced ability to evaluate the performance of the targets.[1] We use the IAS as a benchmark of quality in order to assess the quality of a specific country-pair's accounting standards during our sample period (1998 to 2004).[2] Thus, the volume of M&A activity is predicted to be larger for pairs of countries with similar GAAP relative to IAS.

[1] In this study, we use the term International Accounting Standards (IAS) to refer to all standards issued by the International Accounting Standards Committee, the predecessor of the International Accounting Standards Board.

[2] We first determine the closeness of each country's GAAP to the IAS benchmark, and then derive a measure of similarity based on how similar each member of the country pair is to the IAS benchmark. A higher degree of similarity indicates that each member of the country pair is closer to the IAS benchmark than a country pair in which each country does not closely follow IAS. Thus throughout the paper the term "similarity" refers to the degree to which both members of a country pair follow IAS and therefore have higher quality accounting standards.

We use cross-sectional differences in accounting standards across countries for the period 1998-2004 to test our prediction. A unique feature of our research design is that we conduct our analysis at the country-pair level. This estimation technique allows us to focus on the extent of differences in GAAP between country pairs and their closeness to the IAS benchmark. We supplement our cross-sectional evidence by examining how mandatory adoption of International Financial Reporting Standards (IFRS) by many countries in 2005 affected subsequent cross-border M&A activity. The orchestration of this large-scale, contemporaneous change led a large number of public companies around the world to stop using their countries' local accounting standards in 2005 and to simultaneously adopt a common set of reporting standards, which allows us to provide time-series evidence on the effect of harmonization of accounting standards on foreign acquisition decisions.

Our primary variable of interest is a measure of the volume of cross-border M&A activity for each country pair. To compute the volume measures, we focus on both the total number and the total dollar value of mergers and acquisitions for each country pair. Specifically, we compute how acquirers from a given country allocate (at an aggregate country level) their investments in mergers and acquisitions of the targets in foreign markets. We then calculate the averages of the percentage allocation during the period 1998 - 2004 and relate them to pair-wise comparisons between the GAAP of the acquirer's country, and the GAAP of each of the other target countries in which the acquirers undertook mergers and acquisitions. We repeat this process for all countries in our sample for which we have mergers and acquisitions data.

To measure differences in accounting standards, we adopt Bae et al.'s (2008) approach which focuses on 21 important accounting rules based on their review of the past literature and relying on a survey of GAAP differences in 2001. Specifically, we use these 21 accounting rules

for each of the country pairs in our sample to derive a similarity index measuring the extent of similarity in accounting standards across country pairs, relative to the IAS benchmark. Higher values of this index reflect that both countries conform more to IAS. Our results are robust to an alternative measure of accounting difference that is analogous to Bae et al.'s (2008) second approach that uses survey data to identify commonly occurring differences in a broader set of accounting rules across countries.

Our results indicate that similarities in GAAP and closeness to IAS are positively related to the volume of cross-border mergers and acquisitions. In other words, we find that a smaller difference in GAAP between a country pair leads to more M&A activity in targets of a foreign country. These results hold after controlling for the effects of country-level characteristics including economic development, capital market development, and geographic and cultural proximity. Moreover, these relations are also economically significant. For example, controlling for other country characteristics, a one standard deviation increase in similarity in accounting standards of an average country pair increases cross-border investment by 1.37 percent and 1.64 percent when cross-border investment allocation is estimated based on the frequency and the dollar value of mergers and acquisitions, respectively. When we analyze individual M&A transactions, we find that the takeover premium is higher if target countries' GAAP are similar to those of the acquiring firm's country. This finding is consistent with the notion that similar GAAP reduces information cost, which increases competition among bidders and therefore leaves more gain for target shareholders.

While our cross-sectional test points to a positive relation between similarities in GAAP and cross-border M&A activities, after controlling for multiple country-level characteristics, it is plausible that similarities in accounting standards may themselves be driven by cross-border

interactions, thereby affecting our causal inferences with respect to the similarities in accounting standards. For example, Ding et al. (2007) and Ramanna and Sletten (2009) find that a country's choice of GAAP is influenced by legal system and other institutions that protect investors. Consistent with the results of these two studies, we find our test variable, similarities in accounting standards, to be related to these country-level variables, although the explanatory power of these variables is low (24 percent). As such, a concern is whether the relations we observe simply reflect the impact of the underlying institutions in place. To address this concern, we separate "predicted" similarity due to the country-pair institutions in place from the "residual" similarity that represents similarity in GAAP unexplained by country-pair institutions. In this model specification, we find that the residual similarity metrics positively explain M&A activity in targets of a foreign country, which indicates that the effects of the similarities in accounting standards on cross-border mergers and acquisitions are not subsumed by the effects of a country's investor protection and other country characteristics

To further address this identification issue, in a second analysis we examine an event involving an exogenous change in countries' accounting standards (the mandatory adoption of IFRS by many countries in 2005) and conduct time-series tests around this change.[3] The time series tests indicate that the widespread mandatory adoption of IFRS by countries in 2005 attracted more cross-border M&A activity among IFRS adopting countries in the post-2005 period. While there was an overall increase in M&A activity following the IFRS adoption, the increase was most pronounced for country pairs with low degree of similarity in GAAP in the

[3] We acknowledge that there could have been concurrent changes in governance around mandatory adoption of IFRS. For example, the European Union (EU) adopted governance recommendations in an EU directive (8th Directive on Company Law) in June 2006, whereby EU member states were instructed to "improve accounting enforcement." But the EU approach was "comply or explain" rather than mandatory adoption. Given that the provisions of the 8thDirective were required to be implemented by September 2008 (IFC 2008), and given the "comply or explain" approach, it is very hard to know if such governance recommendations affect the 2006 financial reports. Nevertheless, we cannot disentangle the effect of mandatory IFRS adoption from all other developments occurring around the same time.

pre-IFRS adoption period. In other words, acquirers in countries that adopted IFRS increased their cross-border M&A activity more post-IFRS adoption in countries where there were larger differences in GAAP in the pre-IFRS period. In addition, we find that countries adopting IFRS reduce their M&A activity in non-IFRS countries during the post-IFRS regime. Collectively, these results are consistent with the notion that adoption of uniform accounting standards reduces information processing costs and enhances better evaluation of firm performance, thereby contributing to more cross-border mergers and acquisitions.

Our paper makes several important contributions to prior research. Recent research has been directed at understanding the forces which shape cross-border investments and has led to the identification of country-level legal institutions. Rossi and Volpin (2004) find that the volume of M&A activity is significantly larger in countries with more disclosure and stronger shareholder protection. Bris and Cabolis (2008) show that that the better the shareholder protection and governance in the acquirer's country, the higher the merger premium in cross-border mergers relative to matching domestic acquisitions. Our study differs from these studies in that we focus on the extent of differences in GAAP between country pairs and their closeness to the IAS benchmark. We argue that to the extent that similar accounting standards ameliorate information asymmetry and agency conflicts by reducing information costs and facilitating better performance evaluations, they should encourage more cross-border M&A activity. Our results show that GAAP similarities are positively related to the volume of M&A activity over and above a multitude of other country characteristics (including enforcement) and factors shown to be important in prior cross-country investment literature. Our paper, by focusing on a very large global universe of completed mergers and acquisitions, also extends the research of Chari and

Chang (2009), who find that US firms seek a lower share of equity when acquiring local firms in countries with greater GAAP differences from the US.

Our findings also add to the literature on the consequences of differences in accounting standards around the world. For example, Ali and Hwang (2000) show that value relevance of financial reports is lower where accounting practices follow the Continental model as opposed to the British-American model. Ashbaugh and Pincus (2001) find the extent of differences between local GAAP and IAS is negatively associated with analysts' earnings forecast accuracy. Bae et al. (2008) find that the extent to which GAAP differs between the two countries is negatively related to both analyst following and forecast accuracy. We extend this line of inquiry by showing that differences in accounting standards also matter in cross-border merger and acquisition decisions. Moreover, our additional findings using country-pair analysis to examine the effect on cross-border M&A activities of mandatory IFRS adoption globally complement recent findings that show institutional owners and mutual fund managers increased their holdings of foreign securities after the mandatory adoption of IFRS (DeFond et al. 2011; Yu 2011; Khurana and Michas 2011). Our study differs from these studies in that we shed light on corporate policy by examining the real implications of differences in accounting standards on firm-level investment decisions, rather than mutual fund portfolio allocations. We show that the increase in M&A activity among IFRS adopting countries in the post-IFRS period was larger for country pairs with less similar accounting standards in the pre-IFRS period, which suggests that harmonization of accounting standards is beneficial, although a full assessment would also need to consider the costs of harmonization.

The rest of the paper is organized as follows. Section 2 describes the related literature and develops our testable hypotheses. Section 3 discusses the sample and details the empirical

methods, and descriptive statistics are reported in Section 4. Section 5 presents the empirical results, and Section 6 summarizes and concludes the paper.

2. Prior Research and Hypotheses Development

Prior research indicates that the cost to investors of acquiring information about foreign equity markets is an important barrier to international capital mobility (Brennan and Cao 1997). Merton (1987) develops an analytical model in which investors do not have equal information, and hence rational investors prefer assets they are better informed about. He posits that incomplete information affects investors' stock trading behavior and consequently the related stock price. In related research, Gordon and Bovenberg (1996) show analytically that information disadvantages of foreign investors can result in less foreign investment.

A key element of the information environment in a country is its accounting standards. Prior research notes that differences in accounting standards can impede free capital flows. Barth et al. (1999) demonstrate analytically that harmonization of international accounting standards reduces the costs of acquiring foreign investment expertise, which in turn, facilitates greater international investment. Several empirical studies provide indirect evidence on the importance of information costs for foreign investment decisions. Young and Guenther (2003) find countries that enforce higher levels of disclosure of accounting information exhibit higher international capital mobility, and Bradshaw et al. (2004) find that U.S. ownership increases in companies that adopt accounting standards that conform more closely to U.S. standards. In a similar vein, Covrig et al. (2007) show that average foreign mutual fund ownership is significantly higher among non-U.S and non-Canadian companies that voluntarily adopted International Accounting Standards.

More recently, several studies find that cross-border investments by the U.S. institutional investors and foreign mutual funds increased in those countries that mandated IFRS adoption. Using security-level holdings data of institutional investors in 45 countries, Florou and Pope (2012) find an increase in institutional ownership of equity around IFRS adoption for countries with strict enforcement, low corruption, and low earnings management. In a similar vein, Yu (2010) uses security-level holdings data of international mutual funds in 39 countries and finds an increase in international mutual fund holdings around IFRS adoption. She also finds that the benefit is greater when there are greater differences between IFRS and domestic GAAP and when there is greater enforcement. DeFond et al. (2011) examine and find mutual fund foreign investments increase around IFRS adoption in 14 EU countries, especially when adoption results in a large improvement in comparability. Overall, the evidence indicates how frictions from accounting standards influence cross-border mutual fund holdings.

In this paper, we examine a similar question with regard to corporate investment policy: What are the real effects of differences in accounting standards on firm-level investment decisions, specifically, cross-border mergers and acquisitions? A fundamental role of cross-border mergers and acquisitions is to help acquiring firms to improve the use of firm assets by expanding their investment opportunity set (Stulz 1981; Caves 1982; Doukas and Travlos 1988).[4] Empirical research provides evidence on how differences in disclosures, governance, laws, and regulations across countries affect cross-border M&A activities. Rossi and Volpin (2004) report evidence that the volume of merger activity is higher in countries with better

[4] Different from mutual funds and institutional investors' foreign investment allocation decisions, cross-border M&As are firm-level investment decisions, which typically require acquiring firms to be directly involved in foreign target firms' operation and management. Shareholders of the acquiring firm ultimately bear all the costs, if the cross-border M&A deal turns out to be a failure. For example, eBay (a US company) acquired Skype (a Luxembourg-based company) for $2.6 billion in 2005. After the acquisition, eBay's stock price experienced a steep decline in 2006 and in 2007, eBay announced a large goodwill write-off of $1.43 billion related to the Skype acquisition, which is approximately 55% of the acquisition price.

accounting disclosures and stronger shareholder protection, which is consistent with their argument that a more active market for mergers and acquisitions is the outcome of a corporate governance regime with stronger investor protection.[5] Starks and Wei (2004) and Kuipers et al. (2003) analyze how differences in investor protection determine the announcement effect of cross-border acquisition of U.S. companies. Starks and Wei (2004) find that the takeover premium is decreasing in the quality of the corporate governance in the acquiring country, and Kuipers et al. (2003) find that the returns to targets of cross-border deals in the U.S. is positively related to the quality of the investor protection in the acquirer's country. In a similar vein, Bris and Cabolis (2008) find that the better the shareholder protection in the acquirer's country, the higher the merger premium in cross-border mergers relative to matching domestic acquisitions. In terms of the role of accounting in cross-border mergers, Black et al. (2007) find that international acquirers pay lower premiums for target firms based in countries where accounting data is less value relevant.

Overall, the evidence indicates that high information costs, poor governance mechanisms, and low transparency exacerbate information asymmetry in international equity markets, thus increasing the risk of acquirers making bad decisions when engaging in cross-border M&As. To the extent that differences in accounting standards impose information costs on acquirers and make it difficult to evaluate the performance of the targets, the acquisitions of a particular firm in a foreign country will be negatively affected by the extent to which GAAP differs between the two countries. In our context, acquirers are expected to respond more quickly to growth

[5] Rossi and Volpin (2004) view cross-border M&As as a corporate governance mechanism to alleviate agency conflicts. Thus, they require cross-border M&As in their sample to result in changes in control and focus on the number of cross-border deals as a percentage of all completed deals in a target country. In our study, we argue that cross-border M&A activity is a type of investment activity that helps acquiring firms to channel their assets towards their best possible use. As a result, we examine how acquiring firms from various countries allocate their investments in foreign markets; our sample consists of not only cross-border M&As that take control of target firms but also cross-border partial acquisitions that do not affect controls in targets.

opportunities in a foreign country if accounting standards in the country where investment is being considered are similar to those of the acquirer's country and both countries' standards are closer to the IAS benchmark. In other words, familiarity with the target country's GAAP reduces information costs. Formally stated, our hypothesis is as follows:

H1: A country has more M&A activity in another country when the two countries have similar GAAP relative to International Accounting Standards, ceteris paribus.

3. Research Design and Sample

3.1 Research Design

We first test our hypothesis using a cross-sectional dataset with observations at the country-pair level. In a second test, we investigate the temporal changes in mergers and acquisitions resulting from an exogenous change in accounting standards as a result of the mandatory adoption of IFRS in 2005 by our sample countries.

To examine the relation between the volume of mergers and acquisitions and the similarities in GAAP across country-pairs, we estimate the following model:[6]

$$VOL_{d,f} = \alpha_0 + \beta_1 Similarity_{d,f} + \gamma_j \sum CNT_{d,f} + \varepsilon_{d,f} \quad (1)$$

Where:

VOL = Extent to which acquirers in a domestic country d undertake mergers and acquisitions in a foreign market f.

Similarity = Index measuring the extent of GAAP similarities relative to IAS between each country-pair d and f.

CNT = Country-level control variables expressed in raw form or as ratios (or differences) across country pairs.

Details of the variables used in the study including definitions, measurement, and data sources are described in Appendix A. For the cross-sectional test of hypotheses H1, the

[6] Our country-pair analysis differs from that of Rossi and Volpin (2004), who focus on the number of cross-border deals as a percentage of all completed deals in a target country. In contrast, our focus is on how acquiring firms in a country allocate their investment in foreign markets.

coefficients on the *Similarity* variable in model (1) is of primary interest. Our hypothesis H1 predicts acquirers to have more investments in foreign markets when the foreign country has similar GAAP relative to that of the acquirer's country. Therefore, we expect the coefficient on *Similarity* to be positive under hypothesis H1.

Next we examine the mandatory adoption of IFRS in 2005 on cross-border M&A activity. Mandatory adoption of IFRS in 2005 forced firms in many jurisdictions to stop using their countries' local accounting standards in 2005 and to simultaneously adopt a common set of reporting standards. This shock creates a natural experimental setting to test the effects of accounting harmonization on cross-border M&A activity. Specifically, we examine whether firms in pairs of IFRS adopting countries have more mergers and acquisitions in each other's market after the mandatory adoption of IFRS. To test this proposition, we estimate the following model using data for the years 2004 and 2006:

$$VOL_{d\,f} = \alpha_0 + \beta_1 IFRS\ Adopter_{d,f} + \beta_2\,\text{Post} + \beta_3 IFRS\ Adopter_{d,f} * Post + \gamma_j \sum CNT_{d,f} + \varepsilon_{d,f} \quad (2)$$

Where *IFRS Adopter* is an indicator variable which takes on a value of 1 if both countries in a country pair mandatorily adopted IFRS in 2005, and 0 otherwise, and *Post* is an indicator variable which takes on a value of 1 for 2006 data and 0 for 2004 data. All other variables are as defined before. We expect the coefficient on the interaction term *IFRS Adopter*Post* to be positive because of the standardization of accounting policies.

We also consider whether the impact of mandatory IFRS adoption on mergers and acquisitions within IFRS adopting countries differs with the degree of similarity of accounting standards prior to mandatory IFRS adoption. In other words, we examine whether smaller (bigger) differences in accounting standards in the pre-IFRS period lead to smaller (greater) post-

IFRS effects. Specifically, the increase in M&A activity is predicted to be smaller (larger) for IFRS adopting country-pairs with highly similar (dissimilar) GAAP in the pre-IFRS adoption period.

To test this cross-sectional difference within IFRS adopting countries, we focus just on IFRS adopting country pairs and estimate the following model:

$$VOL_{d,f} = \alpha_0 + \beta_1 Similarity_{d,f} + \beta_2 Post + \beta_3 Similarity_{d,f} * Post + \gamma_j \sum CNT_{d,f} + \varepsilon_{d,f} \quad (3)$$

where *Similarity* captures the extent of GAAP similarities between each country-pair before the mandatory adoption of IFRS in 2005. All other variables are as defined before. We expect the coefficient on the interaction term, *Similarity*Post*, to be negative.

Because our regression models use country pairs as the unit of analysis, ordinary least squares (OLS) estimation of the model will produce unbiased coefficient estimates, but may have understated standard errors due to non-independent sample observations in which an acquirer country is paired one at a time with each of the other countries in which acquiring firms have investments in M&A activity. Therefore, all regressions are estimated with hetroskedasticity-robust standard errors which are clustered by the country making acquisitions in the foreign country.

3.1.1 Dependent Variables

We use the volume of M&A activity for each country pair as the dependent variable in our regressions. To compute the volume measures, we focus on both the total number and the total dollar value of merger and acquisitions for each country pair. Specifically, we compute the percentage of a country d's total number and total value of annual cross-border M&A activity that occurred in a foreign country f, and designate these variables as $Pct\_M\&A1_{d,f}$ and

Pct_M&A2$_{d,f}$, respectively. We then obtain the averages of the percentage allocation over the sample period 1998-2004.[7] By construction, higher values of these variables indicate that investors in an acquirer's country undertake more activity in a foreign market in their cross-border merger and acquisition decisions.

Table 1 shows the data on cross-border mergers and acquisitions by acquirer country. It also lists the frequency and value of merger and acquisitions in foreign markets for two acquirer countries (US and Austria). Several points are noteworthy. First, different countries play different roles in the cross-border M&A market. For example, the U.S. exhibits the largest number of cross-border M&A, while the UK has the largest dollar value of cross-border M&A during our sample period.[8] Second, there is a substantial cross-sectional variation with respect to where the targets belong. For example, Austria does not have mergers and acquisitions in 12 of the foreign markets included in our sample. In contrast, the U.S. has M&A activity in every country. Third, there are differences in the size of M&A allocation across the same set of countries. For example, the number of mergers and acquisitions U.S. investors have in the Canadian market is 19.15 (1,935/10,106) percent compared to Austria's 1.56 (7/449) percent in Canada.

[Insert Table 1]

3.1.2 Test Variable

We use the country-level data reported in Bae et al. (2008, Table 1) to derive the similarity in accounting standards relative to IAS for each country pair in our sample. Bae et al.

[7] As a sensitivity test, we include country-pairs with zero volume in our regression estimations and find that our inferences remain unchanged when we include such observations in the regression estimations.

[8] To rule out the possibility that the observations from the US or UK were driving the results, we repeated all analyses by excluding observations from these two countries and untabulated results yield inferences similar to those reported in the paper.

(2008) focus on 21 key accounting items and rely on a comprehensive survey (Nobes 2001) to identify differences in these 21 accounting items between each country pair.[9] Panels A and B of Appendix B list the 21 accounting items and the individual country scores for each item, respectively.

Following Bae et al. (2008), a pair of countries are deemed to have similar GAAP for an item listed in Appendix B if both countries conform to IAS for that item.[10] We then assign the country pair a "GAAP similar" score of one for that item. Otherwise, we assign the country pair a "similarity" score of zero for that item. This procedure is repeated for all 21 accounting items listed in Appendix B and the ratio formed by the sum of the "GAAP similar" scores for that specific country pair across all 21 items, scaled by 21, constitutes an index, which we denote as "*Similarity*." This index is our measure of the extent of similarity in accounting standards across country pairs, relative to the IAS benchmark, and has a theoretical range from zero to one. By construction, higher values of this variable reflect more similarity in GAAP and more conformity to IAS between the two countries.

Table 2 illustrates how we construct the similarity variable for three country pairs: US and Austria, Austria and Canada, and Canada and US. Panel A focuses on a country pair in which the US is the country of the acquirer and Austria is the target country. An examination of Panel A of Table 2 reveals that there are 8 accounting items where both US GAAP and Austrian

[9] Bae et al. (2008) imposed three criteria for identifying the 21 items. First, the item must have been compiled in prior work by Comprix et al. (2003), Bradshaw et al. (2004), and Basu et al. (1998). Second, data in the comprehensive survey must contain enough information to determine that countries with GAAP that does not conform to IAS have GAAP that are similar to one another. Third, there are at least five countries in the sample that are different from the sample countries that conform to IAS for that item but are similar to one another.

[10] It is possible that two countries that diverge from IAS on an accounting item may have adopted similar non-IAS accounting standard. To examine the sensitivity of our results to this possibility, we recoded our test variables by defining a pair of countries to have similar GAAP for an item listed in Appendix B if both countries conform to IAS for that item or if both countries differ from IAS for that item. Our results using this broader definition were qualitatively similar to those reported in the paper.

GAAP conform to IAS, resulting in a similarity score of 0.381 (8 out of 21). Panel B examines our similarity measure for Austria and Canada, in which Austria is the country of the acquirer and Canada is the target country. Approximately 38% of the 21 accounting items are similar between Austria and Canada. In Panel C, Canada represents the acquirer country and the US is the foreign country, and there are 71% of the 21 GAAP items that are similar between two countries' GAAP.

3.1.3 Control Variables

The first control variable is intended to capture target country's quality of financial reporting. Prior research finds that higher financial reporting quality allows investors to better monitor managers and to prevent them from taking actions that are contrary to shareholder interests (Bushman and Smith 2003; Biddle and Hilary 2006). To the extent that lower accounting quality may impose agency costs on acquirers, we expect acquirers to avoid targets in a foreign country if the country's financial reporting is of a lower quality. The accounting quality variable is constructed based on the descriptive information on three earnings opacity metrics for years 1984-1998 for each sample country provided in Bhattacharya et al. (2003).[11] The three earnings opacity metrics in Bhattacharya et al. (2003) are intended to capture three attributes of earnings numbers that are associated with earnings opacity: earnings aggressiveness, loss

[11] As a sensitivity test, we also controlled for transparency, which is obtained from Center for International Financial Analysis and Research (CIFAR, 1993). In the early 1990s, CIFAR created country-specific indices by rating the annual reports of at least three firms in every country for inclusion or omission of 90 specific items based on the presence of specific disclosures in the following seven categories: general information (8 items), income statement (11 items), balance sheet (14 items), funds flow statement (5 items), accounting policy disclosure (20 items), shareholders' information (20 items), and other supplementary information (12 items). Each country obtains a score out of 90 with a higher number indicating more public disclosure and therefore greater transparency. Our inferences with respect to our test variable similarity remain unaffected by the inclusion of the transparency variable (CIFAR).

avoidance, and earnings smoothing.[12] Using the data reported in Bhattacharya et al. (2003), we rank the earnings aggressiveness metrics across countries, with smaller ranks associated with greater earnings aggressiveness; similarly, the loss avoidance ratios are ranked across countries, with smaller ranks associated with greater loss avoidance; and finally, we rank the earnings smoothing across countries, with smaller ranks associated with greater earnings smoothing. Hence, each dimension of earnings transparency in a country is assigned a rank**,** where higher ranks denote higher earnings transparency. We then average the three separate rankings per country to obtain an overall earnings transparency rank (AQ) for each country. Higher values of this rank (AQ) imply higher earnings quality in the foreign (target) country.

The purpose of the other country-level control variables is to capture important elements of a country's institutions that affect cross-border M&A activity. While these institutions create protection for investors and lenders, they also enhance the payoffs of the acquirers and therefore affect the incentives of the acquirers to engage in the cross-border M&A activity. We draw on past literature to identify a wide range of control variables for institutions and categorize them into the following groups: (i) economic development; (ii) capital market development; (iii) openness; (iv) cultural familiarity; and (v) investor protection, which includes legal enforcement.

We control for differences in the gross domestic product per capita in U.S. dollars (*GDPC*), the real growth rate in the gross domestic product (*GDPGR*), and the inflation rate (*INFLATION*) of the acquirer and target countries as measures of relative economic development of the country pairs.[13] We control for differences in stock market development and private bank

[12] Specifically, earnings aggressiveness is measured as accruals (scaled by lagged assets), loss avoidance as the ratio of the number of firms with small positive earnings (firms with net income scaled by lagged total assets between 0 and 1 percent) minus the number of firms with small negative earnings (firms with net income scaled by lagged total assets between 0 and -1 percent) divided by their sum, and earnings smoothing as the cross-sectional correlation between the change in accruals and the change in cash flows, scaled by lagged assets.

[13] For all economic and capital market development variables (except GDPGR and inflation), we compute a ratio by dividing the value for a target country to that of the acquirer's country. Ratios closer to one indicate that country

credit as measures of relative capital market development of the country pairs. We also include three proxies to capture target country's openness: foreign direct investment (*FDI*), the extent of exports and imports (*TRADE*), and the cost of entry imposed on new entrants (*Cost of Entry*).

To control for the cultural familiarity between the two countries, we introduce two variables in the regression model. The first variable is a language dummy variable (*DUMLANG*) from CEPII (2008) which equals one if a country pair shares a major official language and zero otherwise.[14] The other variable is the geographical proximity variable based on the data on geographical distances (*DIST*) from CEPII (2008), which calculates the bilateral distance between capital cities of country pairs.

We also control for the differences in investor protection between countries using three variables. The first variable is the shareholder rights developed by La Porta et al. (1997, 1998) to capture the effect of a country's legal protection available to minority stockholders. Larger values of shareholder rights' index indicate that minority shareholders are better protected against expropriation by management and large shareholders.[15] The second variable measuring creditor protection rights is also based on La Porta et al. (1998), which distinguishes countries

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pairs are closer with respect to a specific country characteristic. For example, a ratio of 1 based on GDP per capita indicates that GDP per capita for a country pair is the same. In contrast, a ratio of GDP per capita below (above) one indicates that a target's country is relatively less (more) developed compared to the acquirer's market. For GDPGR and inflation, we use the difference form because it can take negative values. As a sensitivity test, we also included all country-level controls in the form of country-pair differences in these variables. Unreported results yielded inferences similar to those reported in the paper.

[14]See http://www.cepii.fr/anglaisgraph/bdd/distances.htm. For each country, this database reports the official languages (up to three) for a country. We use the first official language listed in the database for a country to compute the variable DUMLANG.

[15]This index is based on six specific elements of investor protection dealing with the ability of outside investors to challenge the control of the firm by inside owners and directors. Country-level scores can range from zero to six based on the sum of six indicator variables that reflect shareholder rights: (1) the ability to vote by mail, (2) the ability to gain control of shares during the shareholder's meeting, (3) the possibility of cumulative voting for directors, (4) the ease of calling an extraordinary shareholder's meeting, (5) the availability of mechanisms allowing minority shareholders to make legal claims against directors, and (6) shareholders have preemptive rights that can be waived only by a shareholder's vote.

using four specific protections afforded to creditors. The four criteria relate to whether bankruptcy laws prohibit an automatic stay on assets, the priority of repossession, whether the prevailing bankruptcy provisions in place limit borrowers' ability to obtain judicial protection from creditors' demands, and whether creditors can assign administrators to replace managers for firms in bankruptcy. Larger values of creditor rights indicate that creditors are better protected against expropriation by management and large shareholders. The third variable is the legal enforcement variable which assesses the efficiency and integrity of the legal environment as it affects business, particularly foreign firms. Following Leuz et al. (2003), we define a country's legal enforcement as the average score of three legal variables from La Porta et al. (1998): 1) the efficiency of the judicial system, 2) an assessment of rule of law, and 3) the corruption index. The legal enforcement index has a scale of 0 to 10, with lower scores for countries with weak legal enforcement.

3.2 Sample and Data

To empirically test our predictions, we exploit Security Data Corporation's (SDC) Mergers and Acquisitions database and obtain all cross-border mergers and acquisitions announced over the time period 1998 through 2004.[16] To be included in our sample, merger and acquisition deals need to be completed. In providing a full picture of cross-border M&A activity, we include partial acquisitions as well, even though these partial acquisitions do not necessarily result in change in control. Following prior research (e.g., Rossi and Volpin 2004; Bris and Cabolis 2008), we exclude mergers and acquisitions involving leverage buyouts, spinoffs, recapitalizations, self-tender offers, exchange offers, repurchases, acquisitions of minority interest, and privatizations.

[16] We use 2004 as the cut-off year to avoid confounding with the mandatory adoption of IFRS in several countries as of 2005.

Next we merge the data on cross-border M&A activity at the country-pair level with the differences in GAAP measures obtained from Bae et al. (2008).[17] Additional data requirements for the control variables restrict our sample to 643 country pairs, representing 32 acquirer and 32 target countries listed in Table 1.[18] Note that for some of the robustness tests, there are fewer country-pair observations due to additional data limitations.

We obtain two control variables, geographic distances in thousands of kilometers between acquirer countries and other target countries and official languages of these countries, from CEPII (2008). Other country-level control variables are retrieved from the World Bank's World Development Indicators Database (2009), and the investor protection measures come from La Porta et al. (1998).

4. Univariate Results

4.1 Descriptive Statistics

Table 3 provides descriptive statistics for the dependent variables, the test variable, and several country-level control variables expressed in raw form or as ratios (or differences) across country pairs. The volume of M&A activity varies widely across country pairs. The mean (median) percentage allocation in terms of number and dollar value of M&A activity are 6.37% (2.35%) and 8.16% (1.96%), respectively. The higher mean values than the median values for these variables suggest that a few observations with large values skew the distributions of these variables. On average, approximately 41% of the 21 accounting items in Bae et al. (2008) are similar across country pairs.

[Insert Table 3]

[17] Bae et al. (2008) report differences between local GAAP and IAS for 49 countries (see our Appendix B).

[18] Due to data availability to construct our control variables, seventeen countries (Argentina, Egypt, China, Czech, Estonia, Hungary, Israel, Luxembourg, New Zealand, Peru, Philippines, Poland, Russia, Singapore, Slovenia, Taiwan, and Venezuela) included in Bae et al. (2008) are not covered by our analysis. It is worth noting that some countries (e.g., Austria) do not have cross-border merger and acquisition activities in all 32 countries.

There is also considerable variation in a country's earnings quality as reflected in the AQ variable. The mean and median ratios between two countries' GDP per capita are 2.73 and 0.90. Recall that values smaller than 1 indicate that a foreign market is relatively less developed compared to an acquirer's market. The median difference in the real GDP growth rate (GDPGR) is -0.08. The median difference in the inflation rate (Inflation) is 0.51. The ratio of stock market capitalization (MKTCAP) across country pairs range from 0.04 to 20.04. Corresponding range for the ratio of private bank credit (BANKCREDIT) is from 0.15 to 6.01. Overall, there is substantial cross-sectional variation in the relative measures of economic development and capital market development across country pairs.

The median value of the foreign direct investment (FDI) and international trade (Trade) in the target country is 3.1% and 65.94% of GDP. The mean value of principal component scores for the cost of entry into the target country's market for foreigners (Cost of Entry) is -0.50. About 18 percent of the country pairs share a major official language.[19] The average value of the geographical distance across country pairs ranges from 173 to 18,070 kilometers. There is also substantial cross-sectional variation in the investor protection measures across country pairs as reflected in the range of the values of shareholder rights, creditor rights and legal enforcement across country pairs.

4.2 Correlations

Table 4 presents Pearson correlations among selected variables used in model (1) and their two-tailed probability levels. Both variables measuring the volume of M&A activity are positively correlated with our similarity measure of GAAP for country pairs, suggesting that acquirers undertake more M&A activity in a foreign market when the GAAP of the target

[19] As reported in footnote 13, we choose the first official language listed in the database to compute the DUMLANG variable.

country is similar. This is consistent with our predictions in H1 that M&A activity will be higher for country pairs with smaller differences in GAAP. These correlations provide initial evidence that the similarities in GAAP across country pairs play an important role in cross-border M&A activity.

[Insert Table 4]

Our GAAP similarity measure and earnings quality variable (*AQ*) are positively correlated. Interestingly, the GAAP similarity score across country pairs is not significantly correlated with the most of the differences in economic development, or capital market development. In contrast, our earnings quality measure exhibits statistically significant correlations with the differences in these country-level variables. The correlation between GAAP similarity and *DUMLANG* are statistically significant, suggesting that if country pairs share a major official language, then they exhibit more similarities in GAAP.

The correlation coefficients among other explanatory variables range from -0.516 to 0.579. The high correlations among some of the country-level variables are not surprising. For example, the highest positive pair wise Pearson correlation between variables GDPC and legal enforcement indicates that country pairs with a higher GDP per capita also have stronger legal enforcement. Moreover, the volume variables (*Pct_M&A1* and *Pct_M&A2*) are also correlated with several variables that proxy for economic development, stock market development, and investor protection. These correlations highlight the importance of controlling for these variables in the multivariate regressions.

5. Regression Results

5.1 Test of Hypothesis H1

Table 5 reports results of the OLS estimations of the model in equation (1) with the two measures of the M&A activity as dependent variables.[20] The tests of significance are based on robust t-statistics that are clustered by the country of the acquirer. As reported in Table 5, the explanatory power of the models using total number and the total dollar amount of M&A activities are between 0.379 and 0.516.

[Insert Table 5]

Among the different categories of control variables, several variables exert an incremental effect on the volume of M&A activity. Results indicate that cross-border mergers and acquisitions occur more when the target's country has a relatively higher economic growth (GDPGR), larger private bank credit (BANKCREDIT), share a common language (DUMLANG), are closer in geographical proximity (DIST), and exhibit strong legal enforcement. Moreover, earnings quality (AQ) of firms in the target country, and openness of the target country in the form of the volume of exports and imports, and the cost of entry imposed on new entrants affect the volume of cross-border M&As.

Turning to the variable of primary interest, the coefficients on *Similarity* are positive and statistically significant at the 0.01 level in column (1) and at the 0.05 level in column (2), which support hypothesis H1. These results indicate that acquirers engage in more M&A activity in countries that exhibit similar accounting standards which are closer to the IAS benchmarks, and these effects persist over and above the effects of country-level characteristics such as economic and capital market development, familiarity, investor protection, and other factors controlled in the models. These relations are also economically significant. Controlling for other country-level characteristics, a one standard deviation increase in the similarity score of an average

[20] Given that the dependent variable, the percentage of investment allocation, is censored at 0% and 100%, we re-estimate our equations with a TOBIT regression model in addition to the traditional OLS regression. Our results are robust to this alternative model specification.

country pair increases cross-border investment by 1.37 percent and 1.64 percent when cross-border investment allocation is estimated based on the frequency and the dollar value of mergers and acquisitions, respectively.[21] Overall, the results are consistent with the notion that cross-border M&A activity is greater in target countries that have similar GAAP, relative to that of the acquirer country, and relative to the IAS benchmark.

So far, our tests treat countries' accounting standards as exogenous. However, we know from prior research that a country's GAAP can be influenced by its cross-border interactions, legal system and other institutions that protect investors (e.g., Ding et al. 2007). To extract the exogenous component of similarity in GAAP, we regress *Similarity* on bilateral trade between a country pair, an indicator variable on whether the two countries have the same legal origin (i.e., English, French, German, and Scandinavian), an indicator variable on whether the two countries share a common language, and the natural logarithm of geographic distance between the two countries. Untabulated results for the predictive model for *Similarity* indicate that this model yields adjusted-R^2 of 0.24, implying that cross-border interactions and country-level institutions explain a significant portion of the variation in our similarity variable. We then use the predictive values (*Similarity_Pred*) and the residual errors (*Similarity_Resid*) derived from the first stage as the test variables in our empirical models. *Similarity_Resid* is expected to capture only the idiosyncratic dimension of similarity in a country-pair's accounting standards that is unrelated to other country-level institutions and characteristics.

[21]The magnitude of 1.37 percent is computed by multiplying 7.234 (the coefficient on Similarity in column (1) of Table 5) by 0.19 (the standard deviation of Similarity reported in Table 3). The magnitude of 1.64 percent is computed by multiplying 8.650 (the coefficient on Similarity in column (2) of Table 5) by 0.19 (the standard deviation of Similarity reported in Table 3).

The last two columns of Table 5 report the second stage regression results using both the predicted values and residual errors from the first stage estimation. As expected, the coefficients on the predicted component of *Similarity* are all positive and statistically significant at the 0.05 level, indicating that the predicted values are positively associated with cross-border M&A activity. More importantly, the coefficients on the *Similarity_Resid* variable are also positive and statistically significant at the 0.05 level. The positive and significant coefficients on *Similarity_Resid* indicate that the similarity proxy explain cross-border M&A activity for country pairs, over and above the level of similarity predicted by country-level institutions.

5.2 Additional Firm-level Test Results: Mergers and Acquisitions Premium

To further investigate the effects of similarity of GAAP on information and agency costs involved in cross-border mergers and acquisitions, we focus on individual M&A transactions and examine whether the merger and acquisition premium varies with differences in GAAP. Rossi and Volpin (2004) notes that merger and acquisition premium can be considered as the gain available to target shareholders. To the extent that similar GAAP largely reduce information costs and facilitate greater monitoring, we expect greater gain will be left for target shareholders. Also, a target firm in a more transparent information environment is able to attract more bidders, which, in turn, intensifies competition among bidders and increases the premium paid by the winning bid.

Following Rossi and Volpin (2004), we adopt the following model to examine the relation between merger and acquisition premium and differences in GAAP.

$$Premium_{d,f,i} = \alpha_0 + \beta_1 Similarity_{d,f} + \gamma_j \sum CNT_{d,f} + \varepsilon_{d,f} \qquad (4)$$

where premium is calculated as the bid price divided by the target's price prior to the merger and acquisition announcement. Prior literature (e.g., Schwert 1996) documents significant target price run-up in the preannouncement period. To mitigate potential measurement errors, we measure the target's price using different time windows: 4 weeks, 1 week, and 1 day prior to the announcement date.

Since the premium is measured at the transaction level, we control for both target and deal specific characteristics in addition to country-pair controls. Following Rossi and Volpin (2004), we include target size (the natural log of total assets) and performance (ROA) as controls for target characteristics. We also control for whether the bid is a hostile bid, whether the bid is a tender offer, and whether the bid has competing bids. Due to limited data availability in SDC on stock prices and firm characteristics for international firms, we have 1,711, 1,699, and 1,707 merger and acquisition deals left for the analysis using the premium calculated based on target's stock price 4 weeks, 1 week, and 1 day prior to the announcement date, respectively.

Table 6 presents the regression estimates of equation (4) where the dependent variable is the premium based on target's stock price at three different points in time. Columns (1) - (3) and (4) - (6) differ in terms of how *Similarity* is measured. The adjusted-R^2s for our models are around 0.13, which are similar to the explanatory power of the models in Rossi and Volpin (2004).

[Insert Table 6]

Consistent with Rossi and Volpin (2004), we find hostile bids, tender offer, and competing bids have a positive impact on merger and acquisition premium. Turning to our variables of interest, the coefficients on *Similarity* are positive and statistically significant at the 0.05 level in Columns (1)-(3), suggesting that similar GAAP improves the gain available for

target shareholders from cross-border M&A activity. Moreover, we find the residual component of *Similarity* also exhibits a positive impact on target premium in Columns (4)-(6), indicating that our find is not simply driven by underlying institutional factors. Taken together, these results are supportive of the notion that similar GAAP reduces information and agency costs and facilitates cross-border mergers and acquisitions.

5.3 Time-series Tests of IFRS Adoption

Next we compare cross-border M&A activity before and after the mandatory adoption of International Financial Reporting Standards (IFRS) in 2005 by 18 countries including some EU countries, Australia, Hong Kong, and South Africa. If our information cost argument holds, then we should observe a significantly positive post-IFRS effect on the M&A activities in countries that mandatorily adopt IFRS.

Specifically, we focus on the change in the patterns of the cross-border mergers and acquisitions in 2006, the year after IFRS was mandated relative to the pre-IFRS year 2004. We require country pairs to have data available both pre and post IFRS adoption, which results in 546 country-pair year observations involving 28 acquirer countries and 30 target countries.[22]

Panel A of Table 7 presents univariate evidence on the change in cross-border M&A activity for the IFRS adopter country pairs and other country pairs around 2005. There is a significant increase in cross-border M&A activity measured as Pct_M&A1 and Pct_M&A2 for IFRS adopter country pairs after IFRS adoption. However, for the pairs of non-IFRS adopter countries, there appears to be very little difference in the two metrics (Pct_M&A1 and

[22] Twenty-eight acquirer countries are Australia, Austria, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Portugal, South Africa, Spain, Sweden, Switzerland, Thailand, UK, and US. Thirty target countries consist of Australia, Austria, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Portugal, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, UK, and US.

Pct_M&A2) between the Pre- and Post- IFRS adoption periods. Thus, preliminary evidence suggests that firms in IFRS adopting countries invested more among themselves through M&A activity after the mandatory adoption of IFRS. These univariate results must be interpreted with caution because they do not control for other concurrent changes over time.

[Insert Table 7]

Panel B of Table 7 reports the OLS regression results from estimating the model in equation (2).[23] Columns (1) and (2) differ in terms of the measures used to proxy for the volume of cross-border M&A activity. The adjusted-R^2s for these two models are 0.382 and 0.206, respectively. Turing to our variable of interest, the coefficients on the interaction between *IFRS Adopter* and *Post* are positive and statistically significant at the 0.10 level (two-tail) in column (1) and at the 0.01 level in model (2), indicating that IFRS adopter countries increase their foreign investments through M&A activity in other IFRS adopting countries in the post-IFRS adoption period. Controlling for other country characteristics, mandatory IFRS adopter country pairs increase their cross-border investments by 1.303 percent and 5.727 percent in the post-IFRS adoption period when cross-border investment allocation is estimated based on the frequency and the dollar value of mergers and acquisitions, respectively. This finding is consistent with the argument that the mandated IFRS adoption in the IFRS adopting countries reduced differences in GAAP among them, which contributed to reduced information processing costs and led to greater foreign investment in the set of IFRS adopting countries.

Overall, the results in Table 7 show that mandated IFRS adoption in the IFRS adopting countries is associated with greater firm-level cross-border M&A activity in IFRS adopting

[23] Since the volume of cross-border M&A activity is measured in 2004 and 2006, we exploit the World Bank database and update our country-level economic development and stock market development variables with values corresponding to the years 2004 and 2006.

countries. However, it would be useful to know whether countries that adopt IFRS had a reduction in their M&A activity in markets that did not adopt IFRS. To examine this issue, we first define a new indicator variable, IFRS Adopter$_{d}$,Non-IFRS Adopter$_{f,,}$ which takes on a value of 1 if country d mandatorily adopted IFRS in 2005 and the other country f did not, and 0 otherwise. We then replace this new variable for IFRS Adopter$_{d,f}$ variable in the model in equation (2) and re-estimate the regression model.

Table 8 provides the OLS regression results for this new estimation. Columns (1) and (2) report results using *Pct_M&A1* and *Pct_M&A2* as dependent variables, respectively. Consistent with our expectation, the coefficients on the interaction between *IFRS Adopter$_{d}$,Non-IFRS Adopter$_{f,}$* and *Post* are negative and statistically significant at the 0.05 level. IFRS adopting countries reduced their investments (M&A activity) in non-IFRS countries in the post-IFRS period. Taking Table 7 and Table 8 together, the findings are suggestive of a substitution effect in which IFRS adopter countries increased their foreign M&A activity in other IFRS countries with a common GAAP, but decreased their foreign investments in the post-IFRS adoption period in non-IFRS adopting countries where such countries have more divergent GAAPs.

[Insert Table 8]

5.4. Subsample Analysis of IFRS Adoption within IFRS Adopting Countries

In this section, we examine whether the impact of mandatory IFRS adoption on cross-border M&A activity within IFRS adopting countries differs with the degree of similarity of accounting standards (relative to the IAS benchmark) prior to mandatory IFRS adoption. Because of our focus on mandatory IFRS adopting countries for this analysis, our sample consists of 252 country-pair year observations involving 18 countries.[24]

[24] The 18 countries are Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Netherlands, Portugal, South Africa, Spain, Sweden, Switzerland, and UK.

Table 9 reports the OLS regression results for estimating the model in equation (3) for the subsample of IFRS adopting country pairs. The coefficients on the main effect of the *Similarity* variable are positive and statistically significant at the 0.10 level (two-tail), suggesting that the higher degree of similarity of accounting standards (relative to the IAS benchmark) facilitates greater cross-border M&A activity prior to mandatory IFRS adoption. Moreover, the coefficient on the *Post* variable is positive and statistically significant at least at the 0.10 level, indicating that IFRS adopting countries increased their foreign investments in other IFRS adopting countries in the post-IFRS adoption period. The test variable of interest is the coefficient on the interaction of *Similarity*Post* which is negative and statistically significant at the 0.10 level (two-tail) in Columns (1) and (2), indicating that the change in cross-border M&A activity in the Post-IFRS period is smaller for country pairs with similar GAAP in the Pre-IFRS adoption period. In other words, firms in IFRS adopting countries increased their foreign investments more in other IFRS adopting countries in the post IFRS adoption period where there were larger differences in GAAP (relative to the IAS benchmark) in the pre-IFRS adoption period. The implication is that countries with large differences between local accounting standards and IFRS benefit the most in terms of cross-border investments as they adopt IFRS. In Columns (3) and (4), we use the predicted and residual components of similarity in GAAP to re-estimate equation (3). The coefficient on the *Similairyt_Pred*Post* is not statistically significant at the 0.10 level. However, the coefficient on *Similarity_Resid*Post* is negative and statistically significant at the 0.10 level (two-tail), which again suggests that the increase in cross-border M&A activity in the Post-IFRS period is smaller for country pairs with similar GAAP in the pre-IFRS period, even after we isolate the effects of country-pair institutions on the *Similarity* variable.

[Insert Table 9]

5.5 Sensitivity Tests

In this section, we assess the sensitivity of our results by using an alternative measure of accounting similarity based on 63 GAAP items to ensure that our results are robust to the measurement of accounting standards.[25] Specifically, we base this alternative measure on the GAAP 2000 survey conducted by the large accounting firms to study national accounting rules in 53 countries (IFAD 2000).[26] This survey provides an overview of some of the differences between national accounting rules and IAS for a total of 63 key accounting practices (including 19 in the area of disclosure). Each accounting practice covered in the GAAP 2000 survey is coded by the IAS section number, along with a brief description of the nature of how local GAAP and IAS differ for that item. For each country, the accounting differences with IAS are listed in four categories: accounting may differ from what is required by IAS; no specific rules requiring disclosure, inconsistencies between national and IAS rules that could lead to differences for many enterprises, and in certain enterprises, these other issues could lead to differences from IAS. We treat these four types of departures from IAS as country-level departures from IAS.[27] The construction of the country-pair similarity based on IFAD (2000) mirrors the procedures followed for the *Similarity* measure based on Bae et al. (2008). Appendix C details the accounting items that are included in the construction of this alternative measure.

[25] Detailed results are available from the authors upon request.

[26]To obtain the data necessary to compile *GAAP 2000*, the study surveyed partners in the large accountancy firms in 53 countries to benchmark their local written requirements against 60 accounting measures, focusing on standards (both IAS and national) in force for the financial reporting period ending 31 December 2000. The 53 countries taking part in the survey were chosen for their economic importance and represent approximately 95 percent of the world's Gross National Product.

[27] This approach is analogous to the approach used by Ding et al. (2007) but it differs slightly from the approach used by Bae et al. (2008) in computing an alternative measure of differences in GAAP. They use only the information appearing under the first two types of departures from IAS for coding the country-level departures from IFRS.

Unreported results continue to find a significant increase in foreign investments as our alternative measure of *Similarity* of GAAP increases, suggesting that the reduced comprehensiveness of accounting items in computing the *Similarity* measure is not crucial for our results on the relation of cross-border mergers and acquisitions with similarity of GAAP.

6. Conclusion

We examine whether differences in accounting standards across countries create a barrier that inhibits firm-level investments (M&A) in foreign equity markets. We examine this prediction using data from 32 countries over a seven year period from 1998 to 2004. As expected, we find that the volume of M&A activity across country pairs is larger for pairs of countries with greater similarity in terms of closeness to IAS. We also find the takeover premium is higher if target countries' GAAP is similar to that of the acquiring firm's country. Moreover, we find that mandatory IFRS adoption in the EU and other countries in 2005 attracted greater cross-border mergers and acquisitions between them and that this increase in M&A activity in the post-IFRS period is smaller for country pairs with a high degree of similarity to IAS standards in the pre-IFRS period. These results hold after controlling for the effects of several country-level characteristics including economic development, capital market development, and geographic and cultural proximity.

Our results are consistent with the notion that similar and high quality national accounting standards can reduce information frictions and lessen underinvestment in foreign markets. Overall, our analysis helps to understand the channel through which accounting standards facilitate cross-border investment. While our analysis suggests that there are informational advantages to accounting harmonization in the context of cross-border M&A activity, our evidence does not shed light on the total costs and benefits of harmonization.

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Table 1 Descriptive Information of Cross-border Merger and Acquisition (M&A) Activities by Acquirer Country

Country	Total Frequency of M&A Activities	Total Value of M&A Activities ($ Mil)	US M&A Allocation		Austria M&A Allocation	
			Frequency	Value ($ Mil)	Frequency	Value ($ Mil)
Australia	726	83,336	525	24,408	3	151
Austria	449	6,605	50	387	N.A.	N.A.
Belgium	891	69,332	158	7,692	9	476
Brazil	41	10,379	332	13,260	3	88
Canada	3,076	179,729	1,935	105,785	7	566
Chile	33	1,088	109	5,649	-	-
Denmark	704	25,615	100	6,284	7	62
Finland	653	48,257	73	3,893	10	213
France	2,390	394,920	603	33,144	18	66
Germany	3,027	336,585	877	79,201	201	1,662
Greece	96	6,063	24	1,500	-	-
Hong Kong	491	25,213	212	6,024	-	-
India	264	3,368	406	5,078	4	8
Indonesia	24	1,746	45	1,519	-	-
Ireland	593	20,867	136	4,719	-	-
Italy	844	61,842	296	25,588	36	239
Japan	1,044	65,765	369	34,438	3	11
Korea	115	2,873	254	24,662	-	-
Malaysia	300	5,463	56	1,366	-	-
Mexico	108	14,165	308	25,138	2	52
Netherlands	1,893	245,668	296	25,565	14	184
Norway	509	18,151	111	4,330	-	-
Pakistan	7	79	8	10	-	-
Portugal	188	14,294	28	616	-	-
South Africa	300	13,976	94	1,619	2	10
Spain	704	113,631	222	5,727	7	17
Sweden	1,439	67,151	222	18,187	13	1,200
Switzerland	1,165	116,529	155	17,405	49	175
Thailand	49	1,399	92	2,265	-	-
Turkey	18	192	30	236	-	-
UK	5,137	897,104	1,980	174,575	30	587
US	10,106	660,271	N.A.	N.A.	31	837
Total	37,384	3,511,655	10,106	660,271	449	6,605

N.A. = Not applicable.

Table 2 Examples for the Construction of the Similarity Variable

Panel A: US is the acquirer country and Austria is the target country

Country	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	Total
Country d = US	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	4
Country f = Austria	1	0	1	0	0	0	0	1	1	0	1	1	1	0	1	1	0	0	1	1	1	12
Similarity $_{d,f}$	0	1	0	1	1	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	**0.381**

Panel B: Austria is the acquirer country and Canada is the target country

Country	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	Total
Country d = Austria	1	0	1	0	0	0	0	1	1	0	1	1	1	0	1	1	0	0	1	1	1	12
Country f = Canada	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	5
Similarity $_{d,f}$	0	1	0	1	1	1	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	**0.381**

Panel C: Canada is the acquirer country and US is the target country

Country	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	Total
Country d = Canada	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	5
Country f = US	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	4
Similarity $_{d,f}$	0	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0	1	1	1	1	1	**0.714**

A country d or a country f is assigned a 0 (1) for an accounting item if the local GAAP of that country is similar to (different than) IAS. The variable $Similarity_{d,f}$ for a country pair is assigned 1 for an accounting item if the local GAAP of both countries use IAS and 0 otherwise.

Table 3 Descriptive Statistics

	N	Minimum	Mean	Median	Maximum	Std. Dev.
Dependent variable:						
Pct_M&A1 $_{d, f}$	643	0.09%	6.37%	2.35%	100.00%	10.79%
Pct_M&A2 $_{d, f}$	643	0.0003%	8.16%	1.96%	100.00%	16.41%
Test Variable:						
Similarity $_{d, f}$	643	0	0.41	0.38	0.95	0.19
Similarity_Resid $_{d, f}$	643	-0.49	0.01	0.00	0.52	0.17
Similarity_Pred $_{d, f}$	643	0.23	0.39	0.38	0.81	0.10
Accounting Quality:						
AQ $_{f}$	643	4.00	18.19	19.67	28.67	6.42
Economic Development:						
GDPC $_{d, f}$	643	0.01	2.73	0.90	73.15	7.97
GDPGR $_{d, f}$	643	-16.49	-0.09	-0.08	13.74	2.57
Inflation $_{d, f}$	643	-93.87	1.43	0.51	75.48	11.01
Capital Market Development:						
MKTCAP $_{d, f}$	643	0.04	1.52	0.90	20.04	1.90
BANKCREDIT $_{d, f}$	643	0.15	1.14	0.93	6.01	0.79
Target Country's Openness:						
FDI $_{f}$	643	-1.98	4.77	3.10	48.26	6.47
Trade $_{f}$	643	19.74	80.71	65.94	332.77	57.91
Cost of Entry $_{f}$	643	-1.74	-0.50	-0.53	1.22	0.83
Familarity:						
DUMLANG $_{d, f}$	643	0	0.18	0	1.00	0.38
DIST $_{d, f}$	643	173	6314	6240	18070	4718
Investor Protection:						
Shareholder Right $_{d, f}$	643	0.17	1.23	1.00	6.00	0.88
Creditor Right $_{d, f}$	643	0.20	1.21	1.00	5.00	0.78
Legal Enforcement $_{d, f}$	643	0.29	0.99	0.97	3.39	0.39

All variables are defined in Appendix A.

Table 4 Pearson Correlations

	Similarity_Resid $_{d,f}$	*Similarity_Pred* $_{d,f}$	*Pct_M&A1* $_{d,f}$	*Pct_M&A2* $_{d,f}$	*AQ* $_{f}$	*GDPC* $_{d,f}$	*GDPGR* $_{d,f}$	*Inflation* $_{d,f}$	*MKTCAP* $_{d,f}$	*BANKCREDIT* $_{d,f}$	*FDI* $_{d,f}$	*Trade* $_{f}$	*Cost of Entry* $_{f}$	*DUMLANG* $_{d,f}$	*Log DIST* $_{d,f}$	*Shareholder Right* $_{d,f}$	*Creditor Right* $_{d,f}$	*Legal Enforcement* $_{d,f}$
Similarity $_{d,f}$	0.840	0.466	0.126	0.088	0.095	0.126	-0.008	-0.021	0.062	0.007	-0.021	0.112	-0.217	0.377	0.247	-0.089	0.002	0.058
	(0.00)	(0.00)	(0.00)	(0.03)	(0.02)	(0.00)	(0.84)	(0.60)	(0.12)	(0.85)	(0.59)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.96)	(0.14)
Similarity_Resid $_{d,f}$		-0.088	0.028	0.035	0.087	0.047	-0.005	-0.004	0.034	-0.037	0.008	0.148	-0.163	-0.099	0.000	-0.080	-0.009	0.031
		(0.02)	(0.05)	(0.04)	(0.03)	(0.24)	(0.91)	(0.91)	(0.39)	(0.35)	(0.83)	(0.00)	(0.00)	(0.01)	(0.99)	(0.04)	(0.81)	(0.43)
Similarity_Pred $_{d,f}$			0.185	0.104	0.031	0.155	-0.007	-0.032	0.058	0.074	-0.052	-0.035	-0.132	0.855	0.455	-0.033	0.019	0.056
			(0.00)	(0.01)	(0.43)	(0.00)	(0.86)	(0.42)	(0.14)	(0.06)	(0.18)	(0.37)	(0.00)	(0.00)	(0.00)	(0.40)	(0.63)	(0.16)
Pct_M&A1 $_{d,f}$				0.801	0.159	0.368	-0.038	-0.340	0.438	0.466	-0.069	-0.038	-0.144	0.223	-0.145	0.053	-0.062	0.522
				(0.00)	(0.00)	(0.00)	(0.33)	(0.00)	(0.00)	(0.00)	(0.08)	(0.33)	(0.00)	(0.00)	(0.00)	(0.18)	(0.12)	(0.00)
Pct_M&A2 $_{d,f}$					0.163	0.345	-0.009	-0.349	0.378	0.411	-0.067	-0.068	-0.146	0.110	-0.057	0.049	-0.099	0.502
					(0.00)	(0.00)	(0.83)	(0.00)	(0.00)	(0.00)	(0.09)	(0.08)	(0.00)	(0.01)	(0.15)	(0.22)	(0.01)	(0.00)
AQ $_{f}$						0.127	-0.048	-0.073	0.108	0.077	0.278	0.080	-0.397	0.068	-0.095	0.057	-0.261	0.307
						(0.00)	(0.22)	(0.06)	(0.01)	(0.05)	(0.00)	(0.04)	(0.00)	(0.09)	(0.02)	(0.15)	(0.00)	(0.00)
GDPC $_{d,f}$							-0.203	-0.189	0.377	0.423	0.003	0.058	-0.181	0.138	0.116	-0.057	-0.168	0.574
							(0.00)	(0.00)	(0.00)	(0.00)	(0.94)	(0.15)	(0.00)	(0.00)	(0.00)	(0.15)	(0.00)	(0.00)
GDPGR $_{d,f}$								-0.095	0.039	-0.302	0.104	0.045	-0.090	0.008	-0.035	0.275	-0.095	-0.096
								(0.02)	(0.33)	(0.00)	(0.01)	(0.25)	(0.02)	(0.83)	(0.37)	(0.00)	(0.02)	(0.01)
Inflation $_{d,f}$									-0.330	-0.437	-0.150	-0.162	0.295	-0.061	0.059	-0.060	0.033	-0.508
									(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.12)	(0.13)	(0.13)	(0.40)	(0.00)
MKTCAP $_{d,f}$										0.448	0.112	0.288	-0.343	0.108	-0.040	0.207	-0.066	0.527
										(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.31)	(0.00)	(0.10)	(0.00)
BANKCREDIT $_{d,f}$											-0.025	0.065	-0.288	0.066	0.033	0.132	0.061	0.535
											(0.53)	(0.10)	(0.00)	(0.09)	(0.40)	(0.00)	(0.12)	(0.00)
FDI $_{f}$												0.579	-0.245	0.071	-0.205	-0.096	0.003	0.135
												(0.00)	(0.00)	(0.07)	(0.00)	(0.01)	(0.94)	(0.00)
Trade $_{f}$													-0.254	0.044	-0.083	-0.044	0.160	0.144
													(0.00)	(0.27)	(0.03)	(0.27)	(0.00)	(0.00)
Cost of Entry $_{f}$														-0.154	0.024	-0.212	0.040	-0.516
														(0.00)	(0.54)	(0.00)	(0.32)	(0.00)
DUMLANG $_{d,f}$															0.022	-0.027	-0.005	0.091
															(0.58)	(0.49)	(0.90)	(0.02)
Log_DIST $_{d,f}$																-0.022	0.040	-0.049
																(0.58)	(0.32)	(0.21)
Shareholder Right $_{d,f}$																	-0.001	0.089
																	(0.98)	(0.02)
Creditor Right $_{d,f}$																		-0.185
																		(0.00)

p values are in parentheses. All variables are defined in Appendix A.

Table 5 Regression Results: the Association of Cross-border Merger and Acquisition (M&A) Activity and Similarity of GAAP

Parameter Estimates (t-statistics are in parentheses)				
	Column (1)	**Column (2)**	**Column (3)**	**Column (4)**
	$Pct\_M\&A1_{d,f}$	**$Pct\_M\&A2_{d,f}$**	**$Pct\_M\&A1_{d,f}$**	**$Pct\_M\&A2_{d,f}$**
Intercept	2.445 (0.68)	-6.244 (-1.19)	2.225 (0.64)	-6.418 (-1.23)
Similarity $_{d,f}$	**7.234***** **(3.45)**	**8.650**** **(2.59)**		
Similarity_Resid $_{d,f}$			**5.193**** **(2.25)**	**7.027**** **(2.08)**
Similarity_Pred $_{d,f}$			**7.17***** **(3.06)**	**6.427**** **(2.09)**
AQ_f	0.216*** (4.16)	0.319*** (3.05)	0.196*** (3.83)	0.304*** (2.86)
$GDPC_{d,f}$	0.030 (0.17)	0.061 (0.32)	0.047 (0.26)	0.074 (0.38)
$GDPGR_{d,f}$	0.526** (2.35)	0.837** (2.39)	0.505** (2.43)	0.820** (2.40)
$Inflation_{d,f}$	-0.041 (-0.44)	-0.136 (-0.72)	-0.035 (-0.36)	-0.131 (-0.68)
$MKTCAP_{d,f}$	1.171 (1.59)	1.391** (2.00)	1.218* (1.71)	1.428** (2.09)
$BANKCREDIT_{d,f}$	3.451*** (4.34)	4.041*** (3.51)	3.347*** (4.18)	3.958*** (3.40)
FDI_f	-0.192*** (-3.67)	-0.210*** (-2.78)	-0.184*** (-3.54)	-0.203** (-2.64)
$Trade_f$	0.020** (2.42)	0.039*** (3.90)	0.015* (1.77)	0.035*** (3.30)
$Cost\ of\ Entry_f$	-3.272*** (-4.47)	-4.083*** (-3.67)	-3.357*** (-4.60)	-4.151*** (-3.70)
$DUMLANG_{d,f}$	4.019*** (4.44)	1.458 (0.96)	-12.212** (-2.15)	-11.45 (-1.67)
$Log\_DIST_{d,f}$	-1.879*** (-5.33)	-1.256*** (-2.79)	-4.803*** (-3.93)	-3.581** (-2.54)
$Shareholder\ Right_{d,f}$	-0.615 (-1.29)	-0.963 (-1.23)	-0.567 (-1.18)	-0.925 (-1.17)
$Creditor\ Right_{d,f}$	0.967 (1.30)	0.768 (0.88)	0.821 (1.03)	0.651 (0.70)
$Legal\ Enforcement_{d,f}$	10.179*** (4.26)	15.276*** (4.76)	10.065*** (4.17)	15.186*** (4.66)
N	643	643	643	643
Adj R^2	0.481	0.379	0.516	0.389

Dependent variable is volume of cross-border M&A. All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Table 6 Regression Results: Target Premium in Cross-border M&A Activity

Parameter Estimates (t-statistics are in parentheses)						
	(1) Premium 4 Week	**(2) Premium 1 Week**	**(3) Premium 1 Day**	**(4) Premium 4 Week**	**(5) Premium 1 Week**	**(6) Premium 1 Day**
Intercept	17.237	21.669	18.168	15.638	22.187	23.285
	(0.87)	(1.57)	(1.41)	(0.68)	(1.40)	(1.49)
Similarity $_{d,f}$	**19.107****	**20.924*****	**18.158****			
	(2.31)	**(2.61)**	**(2.26)**			
Similarity_Resid $_{d,f}$				**18.24****	**20.708****	**18.444****
				(2.12)	**(2.50)**	**(2.22)**
Similarity_Pred $_{d,f}$				**37.597***	**34.236****	**19.274**
				(1.85)	**(2.41)**	**(1.37)**
AQ $_{f}$	1.053**	0.840**	0.720**	1.033**	0.814**	0.697**
	(2.64)	(2.53)	(2.32)	(2.65)	(2.41)	(2.21)
Size	-1.196	-0.502	-0.694	-1.106	-0.423	-0.652
	(-1.68)	(-0.80)	(-1.15)	(-1.54)	(-0.66)	(-1.06)
ROA	9.872	7.165	9.841**	8.058	5.686	8.594*
	(1.31)	(1.33)	(2.07)	(1.10)	(1.08)	(1.82)
Hostile Bid	8.745**	10.931***	13.46***	8.946**	11.317***	14.166***
	(2.61)	(2.86)	(3.81)	(2.66)	(2.98)	(4.05)
Competing bid	14.547***	15.326***	15.295***	14.276***	15.245***	15.138***
	(5.00)	(4.75)	(5.76)	(4.66)	(4.63)	(5.64)
Tenderoffer	15.41***	11.693***	10.154***	15.915***	12.084***	10.304***
	(7.87)	(5.05)	(4.69)	(8.16)	(5.17)	(4.55)
GDPC $_{d,f}$	0.744**	0.959***	0.326	0.715**	0.943***	0.300
	(2.20)	(3.26)	(1.11)	(2.21)	(3.05)	(1.08)
GDPGR $_{d,f}$	-1.533*	-1.584**	-1.504**	-1.755*	-1.752***	-1.627**
	(-1.86)	(-2.48)	(-2.28)	(-1.98)	(-2.60)	(-2.35)
Inflation $_{d,f}$	0.328	0.120	0.085	0.337	0.097	0.034
	(0.99)	(0.26)	(0.18)	(0.99)	(0.20)	(0.07)
MKTCAP $_{d,f}$	0.149	1.469	1.530	1.005	2.218	2.219
	(0.10)	(1.05)	(1.12)	(0.78)	(1.61)	(1.63)
BANKCREDIT $_{d,f}$	1.508	-0.056	-0.996	1.36	-0.305	-1.191
	(0.96)	(-0.03)	(-0.56)	(0.82)	(-0.15)	(-0.61)
FDI $_{f}$	0.100	0.222*	0.063	0.148	0.259*	0.076
	(0.78)	(1.69)	(0.54)	(1.13)	(1.97)	(0.66)
Trade $_{f}$	0.051	0.076***	0.061*	0.051	0.076**	0.064**
	(1.47)	(2.68)	(1.95)	(1.37)	(2.59)	(1.98)
Cost of Entry $_{f}$	-0.723	-1.801	-1.663	-1.016	-2.195	-2.329
	(-0.22)	(-0.70)	(-0.70)	(-0.28)	(-0.78)	(-0.90)
DUMLANG $_{d,f}$	-5.283	-5.535*	-5.622**	-9.766	-8.845*	-5.827
	(-1.53)	(-1.91)	(-2.14)	(-1.48)	(-1.88)	(-1.29)
Log_DIST $_{d,f}$	-0.212	-0.908	-1.002	-0.379	-1.044	-1.042
	(-0.23)	(-1.00)	(-1.10)	(-0.45)	(-1.19)	(-1.16)
Shareholder Right $_{d,f}$	3.388	2.451	1.978	3.372	2.411	1.781
	(1.30)	(1.57)	(1.50)	(1.30)	(1.53)	(1.32)
Creditor Right $_{d,f}$	4.076***	5.303***	5.004***	3.51**	4.774***	4.461***
	(3.02)	(3.51)	(3.55)	(2.32)	(3.07)	(3.05)
Legal Enforcement $_{d,f}$	23.001**	25.198***	17.101**	27.969***	30.134***	22.29**
	(2.55)	(3.04)	(2.16)	(2.85)	(3.33)	(2.56)
N	1711	1699	1707	1711	1699	1707
Adj R^2	0.129	0.130	0.130	0.129	0.129	0.126

Dependent variable is target premium in cross-border M&A. All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Table 7 Descriptive Statistics and Regression Results of Cross-Border M&A Activity over Time for Mandatory IFRS Adopter Country Pair vis-a-vis Other Country pairs

Panel A: Descriptive Statistics of Cross-border M&A Activity around Mandatory IFRS Adoption

		Pre-IFRS Adoption	Post-IFRS Adoption	Diff	t-statistics
Pct_M&A1	IFRS Adopter country pairs	0.072	0.081	0.009	(2.12)**
	Other country pairs	0.066	0.070	0.004	(0.74)
Pct_M&A2	IFRS Adopter country pairs	0.059	0.093	0.034	(4.58)***
	Other country pairs	0.054	0.058	0.004	(1.26)

All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Panel B: Changes in Cross-border M&A Activity around Mandatory IFRS adoption

Parameter Estimates (t-statistics are in parentheses)		
	Column (1)	**Column (2)**
	$Pct\_M\&A1_{d,f}$	**$Pct\_M\&A2_{d,f}$**
Intercept	26.709***	29.306***
	(3.24)	(3.13)
IFRS Adopter $_{d,f}$	**6.037*** **	**10.193*** **
	(4.04)	**(4.41)**
Post	**-0.644**	**-1.824**
	(-1.28)	**(-1.47)**
IFRS Adopter $_{d,f}$ **** Post***	**1.303***	**5.727*** **
	(1.78)	**(2.85)**
AQ $_{f}$	0.336***	0.464***
	(4.13)	(3.54)
GDPC $_{d,f}$	0.197**	0.002
	(2.72)	(0.04)
GDPGR $_{d,f}$	-0.120	-0.486
	(-0.46)	(-1.49)
Inflation $_{d,f}$	-0.085	-0.220**
	(-1.22)	(-2.42)
MKTCAP $_{d,f}$	0.648	1.272
	(1.69)	(1.36)
BANKCREDIT $_{d,f}$	2.148**	1.302
	(2.14)	(1.28)
FDI $_{f}$	-0.089***	-0.016
	(-3.96)	(-0.45)
Trade $_{f}$	0.024**	0.039***
	(2.45)	(3.45)
Cost of Entry $_{f}$	0.681	-0.072
	(0.87)	(-0.06)
DUMLANG $_{d,f}$	5.650***	3.778*
	(4.15)	(2.00)
Log_DIST $_{d,f}$	-3.734***	-3.804***
	(-4.03)	(-3.87)
Shareholder Right $_{d,f}$	0.344	1.527**
	(0.56)	(2.26)
Creditor Right $_{d,f}$	1.02	1.772*
	(1.12)	(1.74)
Legal Enforcement $_{d,f}$	4.128	0.536
	(1.21)	(0.13)
N	546	546
Adj R^2	0.382	0.206

All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Table 8 Regression Results of Cross-Border M&A Activity in Target Countries over Time When the Acquiring Country (but not the Target Country) adopted IFRS vis-a-vis Other Country Pairs

Parameter Estimates (t-statistics are in parentheses)		
	Column (1)	**Column (2)**
	$Pct\_M\&A1_{d,f}$	**$Pct\_M\&A2_{d,f}$**
Intercept	14.59**	11.899
	(2.13)	(1.46)
Adopter $_d$ ***Non-Adopter*** $_f$	**2.380***	**6.154***
	(1.96)	**(1.90)**
Post	**0.266**	**1.978****
	(0.61)	**(2.09)**
Adopter $_d$ ***Non-Adopter*** $_f$ **** Post***	**-1.161****	**-4.711***
	(-1.99)	**(-1.85)**
AQ_f	0.330***	0.469***
	(4.07)	(3.70)
$GDPC_{d,f}$	0.241***	0.071
	(2.81)	(0.98)
$GDPGR_{d,f}$	-0.101	-0.48
	(-0.34)	(-1.41)
$Inflation_{d,f}$	-0.052	-0.199**
	(-0.67)	(-2.36)
$MKTCAP_{d,f}$	0.662	1.368
	(1.46)	(1.22)
$BANKCREDIT_{d,f}$	1.916	0.738
	(1.53)	(0.57)
FDI_f	-0.089***	-0.019
	(-3.53)	(-0.52)
$Trade_f$	0.025**	0.040***
	(2.23)	(3.07)
Cost of Entry $_f$	0.794	0.148
	(0.90)	(0.10)
$DUMLANG_{d,f}$	6.222***	4.492**
	(4.48)	(2.49)
$Log\_DIST_{d,f}$	-2.584***	-2.382***
	(-3.30)	(-3.04)
Shareholder Right $_{d,f}$	0.087	1.05
	(0.13)	(1.38)
Creditor Right $_{d,f}$	1.08	1.968
	(0.93)	(1.40)
Legal Enforcement $_{d,f}$	3.969	0.771
	(1.07)	(0.18)
N	546	546
Adj R^2	0.349	0.178

All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Table 9 Regression Results of Cross-Border M&A activity over Time for Mandatory IFRS Adopter Country Pairs

Parameter Estimates (t-statistics are in parentheses)				
	Column (1)	**Column (2)**	**Column (3)**	**Column (4)**
	$Pct\_M\&A1_{d,f}$	**$Pct\_M\&A2_{d,f}$**	**$Pct\_M\&A1_{d,f}$**	**$Pct\_M\&A2_{d,f}$**
Intercept	22.349**	9.563	22.667***	12.602
	(2.84)	(1.10)	(3.16)	(1.32)
Similarity $_{d,f}$	**5.816***	**9.218***		
	(1.69)	**(1.69)**		
Similarity_Resid $_{d,f}$			**6.240***	**11.631***
			(1.75)	**(1.91)**
Similarity_Pred $_{d,f}$			**6.647*****	**14.385***
			(3.72)	**(1.73)**
Post	**2.437***	**6.903****	**2.050***	**6.856***
	(1.70)	**(2.28)**	**(1.72)**	**(1.89)**
Similarity $_{d,f}$ **** Post***	**-1.701***	**-4.926***		
	(-1.71)	**(-1.73)**		
Similarity_Resid $_{d,f}$ ****Post***			**-3.820***	**-10.810****
			(-1.76)	**(-1.97)**
Similarity_Pred $_{d,f}$ ****Post***			**-3.974**	**8.055**
			(-0.93)	**(0.69)**
AQ $_{f}$	0.177*	0.093	0.153*	0.075
	(1.97)	(0.66)	(1.79)	(0.51)
GDPC $_{d,f}$	2.065***	1.935**	2.307***	2.061***
	(2.96)	(2.78)	(3.24)	(3.14)
GDPGR $_{d,f}$	-0.501	-0.695	-0.734	-0.807
	(-1.08)	(-1.16)	(-1.48)	(-1.25)
Inflation $_{d,f}$	-0.670***	-0.177	-0.680***	-0.168
	(-3.15)	(-0.52)	(-3.08)	(-0.46)
MKTCAP $_{d,f}$	0.293	0.287	0.432**	0.376*
	(1.47)	(1.23)	(2.50)	(1.83)
BANKCREDIT $_{d,f}$	-0.095	-1.552	0.056	-1.6
	(-0.15)	(-1.07)	(0.10)	(-1.12)
FDI $_{f}$	-0.069**	0.002	-0.085**	0.009
	(-2.14)	(0.06)	(-2.34)	(0.31)
Trade $_{f}$	0.027**	0.028*	0.020	0.027
	(2.02)	(1.75)	(1.52)	(1.62)
Cost of Entry $_{f}$	0.416	0.052	-0.229	-0.255
	(0.32)	(0.03)	(-0.19)	(-0.16)
DUMLANG $_{d,f}$	7.375**	1.613	-8.263*	-6.699
	(2.87)	(0.67)	(-2.02)	(-0.99)
Log_DIST $_{d,f}$	-2.601***	-2.285***	-5.066***	-3.552***
	(-4.46)	(-3.88)	(-5.03)	(-3.39)
Shareholder Right $_{d,f}$	0.866	2.496***	0.575	2.35**
	(0.96)	(2.97)	(0.61)	(2.77)
Creditor Right $_{d,f}$	1.158	2.414	0.806	2.251
	(1.04)	(1.70)	(0.65)	(1.53)
Legal Enforcement $_{d,f}$	-3.896	2.982	-6.553	1.721
	(-0.84)	(0.46)	(-1.56)	(0.27)
N	252	252	252	252
Adj R^2	0.385	0.172	0.426	0.184

All variables are defined in Appendix A. *, **, *** indicate significance at 10%, 5%, 1% level (two-tailed), respectively.

Appendix A
Data Sources and Definitions

Dependent Variable:

Pct_M&A1$_{d,f}$: The average percentage of a country d's total number of mergers and acquisition activities occurred in a foreign country f over the sample period.

Pct_M&A2$_{d,f}$: The average percentage of a country d's total dollar amount of mergers and acquisition activities occurred in a foreign country f over the sample period.

Pct_DM&A1: The number of M&A deals initiated by acquirers in country d that target at domestic firms, as a percentage of the total number of M&A deals initiated by acquirers in country d.

Pct_DM&A2: The dollar value of M&A deals initiated by acquirers in country d that target at domestic firms, as a percentage of the total dollar value of M&A deals initiated by acquirers in country d.

Test Variable:

Similarity$_{d,f}$: Index created to capture similarities in GAAP between country d and country f. Following Bae et al. (2008), we focus on 21 important accounting items listed in Appendix B. A pair of countries is deemed to have similar GAAP for an item if both countries conform to IAS (i.e., each has a score of zero) for that item. We then assign the country pair a "similarity" score of one for that item. Otherwise, we assign the country pair a "similarity" score of zero for that item. This procedure is repeated for all 21 accounting items listed in Appendix B and the ratio formed by the sum of the "GAAP similar" scores for that specific country pair across all 21 items, scaled by 21, constitutes an index, which we denote as "Similarity." This index is our measure of the extent of similarity in accounting standards across country pairs and has a theoretical range from zero to one. By construction, higher values of this variable reflect more similarity in GAAP between the two countries.

Similarity_Pred$_{d,f}$: The predicted component of similarity in GAAP derived by regressing *Similarity* on bilateral trade between country d and country f, an indicator variable on whether the two countries have the same legal origin (i.e., English, French, German, and Scandinavian), an indicator variable on whether the two countries share a common language, and the natural logarithm of geographic distance between the two countries.

Similarity_Resid$_{d,f}$: The residual component of similarity in GAAP derived by regressing *Similarity* on bilateral trade between country d and country f, an indicator variable on whether the two countries have the same legal origin (i.e., English, French, German, and Scandinavian), an indicator variable on whether the two countries share a common language, and the natural logarithm of geographic distance between the two countries.

Control Variables:

AQ$_d$: Overall average earnings quality rank based on Bhattacharya et al. (2003) for each target country. Higher values of AQ imply greater earnings quality in the target's country.

Economic Development:

$GDPC_{d,f}$: Ratio of country f's gross domestic product (GDP) per capita in U.S. dollars to country d's GDP per capita in U.S. dollars. Source: World Bank (2009).

$GDPGR_{d,f}$: The difference between country f's real GDP growth rate and country d's real GDP growth rate. Source: World Bank (2009).

$INFLATION_{d,f}$: The difference between country f's inflation rate and country d's inflation rate. Source: World Bank (2009).

Capital Market Development:
$MKTCAP_{d,f}$: Ratio of country f's GDP-scaled stock market capitalization to country d's GDP-scaled stock market capitalization. Source: World Bank (2009).

$BANKCREDIT_{d,f}$: Ratio of country f's GDP-scaled private bank credit to country d's GDP-scaled private bank credit. Source: World Bank (2009).

Target Country's Openness:
FDI_f: Country f's GDP-scaled foreign direct stock investment inward in U.S. dollars. Source: World Bank (2009).

$Trade_f$: The average of GDP-scaled exports and imports in country f. Source: World Bank (2009).

Cost of Entry$_f$: Country f's cost of entry imposed on new entrants and is a linear combination of three measures of the cost of entry into the country's markets, namely, (1) the number of procedures/steps that a start-up has to comply with in order to obtain legal status, (2) the time it takes to become operational (in business days) and (3) the cost of becoming operational as a share of per capita GNP. Weights for linear combination are calculated using principal components factor analysis. Source: Djankov et al. (2002).

Familiarity:
$DUMLANG_{d,f}$: It is a dummy variable equal to 1 if country d and country f share a common language, 0 otherwise. Source: *http: / /www.cepii.fr /anglaisgraph/bdd/ distances.htm.*

$DIST_{d,f}$: The natural logarithm of geographic distance between country d and country f. Source: *http: / /www.cepii.fr /anglaisgraph/bdd/ distances.htm.*

Investor Protection:
Shareholder Rights$_{d,f}$: Ratio of country f's anti-director rights' index to country d's anti-director rights' index. The index is created by La Porta et al. (1997) with larger values indicating that minority shareholders are better protected against expropriation by management and large shareholders. Source: La Porta et al. (1997).

Creditor Rights$_{d,f}$: Ratio of country f's creditor rights' index to country d's creditor rights' index. The index is created by La Porta et al. (1997) with larger values indicating that creditors are better protected against expropriation by management and large shareholders. Source: La Porta et al. (1997).

Legal Enforcement$_{d\,f}$: Ratio of country f's enforcement of legal protection to country d's enforcement of legal protection. This enforcement index is the average score of three legal variables from La Porta et al. (1998): 1) the efficiency of the judicial system, 2) an assessment of rule of law, and 3) the corruption index. Source: La Porta et al. (1998).

Other Variables:

IFRS Adopter$_{d,f}$: 1 if both countries in a country pair adopted IFRS, 0 otherwise.

Post: An indicator variable which takes on a value of 1 in 2006 and 0 otherwise.

Adopter$_d$ *NonAdopter*$_f$: 1 if country d mandatorily adopted IFRS in 2005 and the other country f did not, and 0 otherwise.

Appendix B
A summary of local GAAP differences from IAS

Panel A: The 21 IAS Items Making Up the Initial GAAP Differences Measure

Item	IAS Rules	Description – Countries Coded 1
1	IAS No. 1.7	Do not require a primary statement of changes in equity
2	IAS No. 12	Do not generally require deferred tax accounting
3	IAS No. 14	Require no or very limited segment reporting
4	IAS No. 17	Require no or very limited capitalization of leases
5	IAS No. 19	Do not have rules for accounting for employee benefit obligations (other than defined contribution plans in some cases)
6	IAS No. 19.52	Do not have rules for accounting for employee benefits other than pensions
7	IAS No. 2.36	Do not require disclosure of FIFO inventory cost when LIFO is used
8	IAS No. 22.56/38.99	Do not require impairment testing of goodwill or other intangibles with lives in excess of 20 years
9	IAS No. 24	Have no or very limited disclosure requirements for related-party transactions.
10	IAS No. 32.18/.23	Do not require that companies account for their financial instruments based on substance over form
11	IAS No.32.77	Do not require the disclosure of the fair value of financial assets and liabilities
12	IAS No. 35	Do not have rules outlining the treatment of discontinued operations
13	IAS No. 36	Do not have rules calling for impairment testing for long-term assets, or impairments are only recorded when deemed permanent
14	IAS No. 37	Do not have specific rules dealing with provisions
15	IAS No. 37.14	Permit establishing provision when there is no obligation
16	IAS No. 37.45	Do not have rules calling for the discounting of provisions
17	IAS No. 38.42	Permit capitalization of research and development costs
18	IAS No. 38.51	Permit capitalization of some other internally generated intangibles (e.g., brands)
19	IAS No. 7	Do not require a statement of cash flows
20	IAS No. 8.6	Permit a broader definition of extraordinary items
21	SIC 12	Do not require the consolidation of special purpose entities

The IAS numbers used for reference in this table are the primary IAS standard references given in the GAAP 2001 survey used for coding each item. (Source: Bae et al 2008).

Appendix B (Continued)

Panel B: Differences in domestic GAAP from IFRS by country

Country	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21
Argentina	0	1	1	1	1	0	0	0	0	1	1	1	1	0	1	1	1	1	0	1	1
Australia	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0
Egypt	1	1	1	1	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1
Canada	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0
Austria	1	0	1	0	0	0	0	1	1	0	1	1	1	0	1	1	0	0	1	1	1
Belgium	0	0	1	0	1	0	0	1	1	1	1	1	0	0	1	1	1	0	1	1	1
Brazil	0	0	1	1	1	0	0	0	0	1	0	1	1	0	1	1	1	0	1	0	1
Chile	1	0	1	0	1	0	1	1	0	1	1	1	1	0	1	1	0	0	0	1	1
China	0	1	0	0	1	0	1	0	0	1	1	1	0	0	0	1	0	0	0	1	1
Czech	1	0	1	1	1	0	0	0	1	1	0	1	1	0	1	1	1	0	1	1	1
Denmark	1	0	1	1	1	0	0	1	0	1	0	1	1	1	0	0	0	0	0	1	1
Estonia	1	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1
Finland	1	0	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	0	1	0	1
France	1	0	0	1	1	0	1	1	1	1	0	1	1	0	1	1	0	0	0	1	0
Germany	1	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	1	1
Greece	1	1	1	1	0	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1
Hong Kong	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Hungary	1	1	1	0	1	0	1	0	1	1	1	1	1	0	1	1	0	0	0	1	0
India	1	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0
Indonesia	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Ireland	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Israel	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1
Italy	1	0	1	1	0	0	0	0	0	1	1	1	1	0	1	1	0	0	1	1	1
Japan	1	0	0	1	1	0	1	0	0	0	0	1	1	0	1	1	0	0	0	1	0
Korea	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	1
Luxembourg	1	1	1	1	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1
Malaysia	0	0	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	1	0	0	1
Mexico	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Netherlands	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0
New Zealand	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
Norway	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	0	0
Pakistan	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0
Peru	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	1	0	1	0	1	0	1	1	0	1	0	1	1	1	0	0	0	1
Poland	0	0	1	0	1	0	1	1	0	1	1	0	1	0	1	1	1	0	0	1	1
Portugal	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	0	1	1
Russia	1	1	0	0	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1

Appendix B (Continued)

Country	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21
Singapore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovenia	1	1	1	0	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	0
South Africa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	1	0	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1
Sweden	1	0	0	0	0	1	0	1	0	1	1	1	1	0	1	1	1	0	0	0	0
Switzerland	1	0	1	0	0	1	1	0	0	1	1	1	1	0	1	1	0	0	0	1	1
Taiwan	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	1	0	0	0	0	1
Thailand	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
UK	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Turkey	1	1	1	1	1	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0
US	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0
Venezuela	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0

A country is assigned a 0(1) for an accounting item if the local GAAP of that country is similar to (different than) IAS.

Appendix C
The 63 IAS Items Making Up the Alternative GAAP Differences Measure

Item	IAS Standard Number	Area of Accounting
1	IAS1.12	Departure from standards
2	IAS1.13	Disclosure of Departure from standards
3	IAS1.7	Statement of changes in Equity
4	IAS2.36	Asset impairment testing
5	IAS2.6	Valuation of Inventories
6	IAS7.1	Cash Flow Statement
7	IAS10 .11	Undeclared Dividends
8	IAS11.22	Contract method for construction contracts
9	IAS12.34	Deferred taxes
10	IAS12.47	Calculation of Deferred taxes
11	IAS16.29	Asset revaluation
12	IAS16.29	Gains and Losses Resulting from Asset revaluation
13	IAS17.3	Leases
14	IAS17.30	Finance Lease income
15	IAS19.52	Constructive obligation under pension plans
16	IAS19.64	Pension Obligation Measurement
17	IAS19.78	Discount Rate Used in Pension Obligation Measurement
18	IAS19.83	Calculation of Pension Obligation
19	IAS19.96	Calculation of Employee Benefits
20	IAS21.11	Foreign Currency - Monetary Balances
21	IAS21.15	Foreign Currency - Tangible Assets
22	IAS21.36	Price level adjustment in hyperinflationary economies
23	IAS22.31	Provisions in the context of acquisitions
24	IAS22.56	Frequency of Impairment Tests
25	IAS22.8	Business Combinations
26	IAS27.11	Consolidation of Subsidiaries' Accounts
27	IAS27.6	Control of Subsidiaries
28	IAS32.18	Classification of issuer’s financial instruments
29	IAS32.23	Compound Financial Instruments
30	IAS32.77	Disclosure of fair values of financial assets and liabilities
31	IAS37 .14	Recongnition of Provisions
32	IAS37.45	Discounting of provisions
33	IAS38.42	Research and Development
34	IAS38.99	Annual impairment reviews on long-lived assets
35	IAS10.8	Price level adjustment in hyperinflationary economies - for consolidation purposes
36	IAS12.5	Basis of Calculation of Deferred Taxes
37	IAS14.26	Basis of determining segments
38	IAS14.3	Disclosure of segments
39	IAS14.44	Segment information in the financial statements
40	IAS14.51	Segment reporting
41	IAS14.55	Segment reporting of assets and liabilities

Appendix C (Continued)

Item	IAS Standard Number	Area of Accounting
42	IAS17.12	Finance leases
43	IAS17.25	Operating Lease Expenses
44	IAS19.92	Actuarial gains and losses on Pensions
45	IAS22.40	Expenditure on Intangible Items
46	IAS24	Related Party transactions
47	IAS27.13	Subsidiaries under temporary control
48	IAS28.3	Accounting for Associates < 20% of voting power
49	IAS28.8	Accounting for Associates -equity method
50	IAS31.25	Joint ventures
51	IAS33.10	Disclosure of Earnings per share
52	IAS33	Earnings per share
53	IAS35.16	Disclosure of Discontinued Operations
54	IAS36	Asset Impairment
55	IAS37.10	Disclosure of Contingent Liabilities
56	IAS38.51	Capitalization of internally generated intangibles such as brands
57	IAS38.56	Start-up costs
58	IAS12.39	Calculation of Deferred taxes -temporary differences
59	IAS7.45	Reconciliation of cash flow to cash and cash equivalents
60	IAS8.6	Extraordinary items
61	IAS11.3	Foreign Currency -Income
62	IAS15.5	Rental expense
63	IAS16	Asset revaluation

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Education

University of Missouri, Columbia, MO — May 2009
Ph.D. in Accountancy

University of Florida, Gainesville, FL — Dec 2003
Master of Science in Business Administration
Decision & Information Sciences

Jinan University, Guangzhou, China — Jul 2001
Bachelor of Science in Accounting

Academic Employment

Assistant Professor, University of Arkansas, July 2009 – Present

Research Interests

- Role of transparency and disclosures, Properties of accounting numbers, Executive Compensation and International accounting

Research Publication

- Cassell, C., S. X. Huang, J. M. Sanchez. Forecasting without Consequence? Evidence on the Properties of Retiring CEOs' Forecasts of Future Earnings. Conditionally accepted at *The Accounting Review*.

- Albring, S., S. X. Huang, R. Pereira, and X. Xu. 2012 The Effects of Accounting Restatements on Firm Growth. *Journal of Accounting and Public Policy*, forthcoming.

- Cassell, C., S. X. Huang, J. M. Sanchez, and M. D. Stuart. 2012. Seeking Safety: the Relation between CEO Inside Debt Holdings and the Riskiness of Firm Investment and Financial Policies. *Journal of Financial Economics* 103, 588–610.

- Francis, J., S. Huang, I. Khurana, and R. Pereira. 2009. Does Corporate Transparency Contribute to Efficient Resource Allocation? *Journal of Accounting Research* 47, 943-989.

Papers Under Review

- Product Market Competition and Accounting Conservatism (under revision for fourth round review at *Review of Accounting Studies* with Dhaliwal, D., I. Khurana, and R. Pereira)

- Analyst Coverage and the Likelihood of Meeting or Beating Analyst Earnings Forecasts (under second round review at *Contemporary Accounting Research* with Pereira R. and C. Wang)

- Book Tax Differences and Firm Opacity (under revision for resubmission to *The Accounting Review* with Chen, Y., R. Pereira, and C. Wang)

- Managerial Succession and Firm Information Environment (under revision for resubmission at *Contemporary Accounting Research* with Adi Masli)

- The Role of International GAAP in Cross-Border Mergers and Acquisitions (under review at *The Accounting Review* with Francis, J. and I. Khurana; I was phone-interviewed with CFO magazine/CFO.com and the story was published on CFO.com in September 2012)

Working Papers

- Corporate Tax Avoidance and the Level and Valuation of Firm Cash Holdings (with Dhaliwal, D., W. J. Moser, and R. Pereira)

- Regulation Fair Disclosure and Firm Cash Policy (with Albring, S., and Pereira, R.)

- Impairments of Tangible Long-Lived Assets under SFAS No. 144: Underlying Economics, Management Incentives, or Both? (With L. A. Myers and E. S. Johnson)

- Accounting Expertise on the Audit Committee and a Firm's Information Environment (with Farber, D. and E. Mauldin)

- Appropriable Asset Structure and Optimal CEO Compensation (With R. Pereira, and M. Zhang)

- Investor Protection Laws and Real Earnings Management (with R. Pereira, and C. Wang)

Conference Presentations (* presented by coauthors)

- AAA FARS mid-year meeting, 2013
  - Forecasting without Consequence? Evidence on the Properties of Retiring CEOs' Forecasts of Future Earnings

- AAA Annual Meeting, 2012
  - The Role of International GAAP in Cross-Border Mergers and Acquisitions
  - CFO Equity Incentives and Voluntary Disclosure*

- AAA FARS mid-year meeting, 2012
  - Appropriable Asset Structure and Optimal CEO Compensation*

- AAA Annual Meeting, 2011
  - Corporate Tax Avoidance and the Level and Valuation of Firm Cash Holdings
  - Seeking Safety: the Relation between CEO Inside Debt Holdings and the Riskiness of Firm Investment and Financial Policies*
  - Impairments of Tangible Long-Lived Assets under SFAS No. 144: Underlying Economics, Management Incentives, or Both?*

- Financial Management Association (FMA) 2010
  - Accounting Restatements, Financial Constraints, and Firm Growth: The Real Effects of Corporate Misreporting*

- AAA Annual Meeting, 2010
  - The Role of International GAAP Differences in World Wide Mutual Fund Equity Allocations

- AAA FARS mid-year meeting, 2010
  - Regulation Fair Disclosure and Firm Cash Policy

- AAA Annual Meeting, 2009
  - Product Market Competition and Accounting Conservatism
  - Investor Protection Laws and Real Earnings Management
  - Regulation Fair Disclosure and Firm Cash Policy
  - Book Tax Differences and Firm Opacit*

- AAA Annual Meeting, 2008
  - Accounting Expertise on the Audit Committee and a Firm's Information Environment

- AAA Annual Meeting, 2007
  - Does Corporate Transparency Contribute to Efficient Resource Allocation?

Reviewer Activity

- Ad Hoc Reviewer for the Journal of Corporate Finance;
- Reviewer for AAA Annual Meeting, 2010 and 2012; AAA Auditing mid-year Meeting, 2012; AAA FARS mid-year Meeting, 2011; AAA Midwest Region Meeting, 2008

Teaching Experience

- University of Arkansas
  - Intermediate Financial Accounting I, 2009-2011
    Average Teaching Evaluations rated 4.11 on a scale of 1 (low) – 5 (high)

- University of Missouri
  - Introductory Financial Accounting, 2007 and 2008
    Teaching Evaluations rated 4.27 on a scale of 1 (low) – 5 (high)

Honors and Awards

- Williams-Keepers Teaching Excellence Award, Univ. of Missouri, 2008
- Earl Wilson Doctoral Scholarship, Univ. of Missouri, 2008
- Outstanding Graduate Teaching Assistant Award, Univ. of Missouri, 2007-2008
- Outstanding Graduate Research Assistant Award, Univ. of Missouri, 2006-2007
- AAA FARS Doctoral Consortium Fellow, 2007
- Ken Dimitry Memorial Scholarship, Univ. of Missouri, 2007
- Ponder Scholarship in Business, Univ. of Missouri, 2006 – 2008
- AAA/Deloitte/J. Michael Cook Doctoral Consortium 2006
- Doctoral Student Summer Research Fellowship, Univ. of Missouri, 2006
- Outstanding Graduate, Jinan Univ., 2001.
- Outstanding Student Scholarship, Jinan Univ., 1998 – 2001.

Experience

- Research and Teaching Assistant, Univ. of Missouri, Aug 2005 – present
- Business Analyst Consultant, Infinite Energy Inc, FL, Nov 2003 – Dec 2003
- Auditing Intern, GuangXin CPA Firm, Guangzhou, China, Jan 2001 to Apr 2001

References

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