JOURNAL OF INTERNATIONAL ACCOUNTING RESEARCH
Vol. 11, No. 1
2012
pp. 83–111

American Accounting Association
DOI: 10.2308/jiar-10211

The Determinants and Consequences of Heterogeneous IFRS Compliance Levels Following Mandatory IFRS Adoption: Evidence from a Developing Country

Francesco Bova and Raynolde Pereira

ABSTRACT: The adoption of international accounting standards, namely the IFRS, at the country level has sparked two contrasting, but not mutually exclusive, viewpoints. One view is that IFRS engenders better reporting standards, and uniform adoption allows for greater comparability. The upshot is that IFRS adoption will improve a firm's information environment and hence contribute toward a lower cost of capital. The alternative view is that disclosure quality is shaped by political and economic forces, and hence higher-quality accounting standards will not necessarily translate into higher-quality reporting. We empirically evaluate these arguments on IFRS adoption using both private and public-traded firm observations from Kenya, a developing country with relatively open capital markets but limited enforcement resources. Our analysis takes advantage of a unique dataset involving firm-specific measurements of IFRS compliance. We find that while both private and public firms are required to adhere to IFRS, public, rather than private firms, exhibit greater IFRS compliance. Highlighting the influence of capital market openness, we find that foreign ownership is positively and significantly correlated with IFRS compliance. Probing the underlying causal relationship, additional analysis suggests that greater foreign ownership leads to greater IFRS compliance. Examining the effects of IFRS compliance, higher compliance is positively associated with share turnover. Overall, our evidence illustrates both the importance of economic incentives in shaping IFRS compliance and the capital market benefits to being compliant with IFRS in a low enforcement country.

Keywords: IFRS; standard enforcement; foreign ownership; public ownership; Kenya.

JEL Classifications: M41; M44; M47; G15; G38.

Francesco Bova is an Assistant Professor at the University of Toronto and Raynolde Pereira is an Associate Professor at the University of Missouri–Columbia.

Professor Bova thanks the Council on African Studies at the Yale Center for International and Area Studies for funding via the Lindsay Fellowship for Research in Africa. We also thank the Institute of Chartered Public Accountants of Kenya, the Kenyan Capital Markets Authority, and the Nairobi Stock Exchange for providing access to their staff and to their market data. We especially thank John Irungu, Edwin Ruttoh, Luke Ombara, and Godfrey Omerilly for discussions and assistance. We also thank the participants of the 2008 IAS-IAAER Midyear Conference, the 20th Asia-Pacific Conference on International Accounting Issues, the 2009 AAA Annual Meeting, the First Journal of International Accounting Research Conference, Stephen Lin (discussant), Ervin Black (editor), Michael Welker, and Ole-Kristian Hope for helpful comments. All errors are our own.

Published Online: January 2012

I. INTRODUCTION

There is an increasing push toward the adoption of a singular global accounting standard, the International Financial Reporting Standards (IFRS), as formulated by the International Accounting Standards Board (IASB). At present, more than 100 countries have either required or permitted the use of IFRS or adopted a policy to converge domestic accounting standards with the IFRS. The issue of IFRS adoption has been subject to two competing views. One view, which favors IFRS adoption, contends that it represents superior accounting standards in comparison to domestic accounting standards (Barth 2008). Additionally, it is argued that convergence to a singular accounting standard improves firm comparability. Given these two points, it is argued that IFRS will improve firm information environment and effectively contribute to a lower cost of capital (Barth 2008). In contrast, Ball (2006) notes that superior accounting standards do not necessarily translate into higher-quality reporting. His point is that reporting quality is largely shaped not by accounting standards alone, but also by "economic and political forces."

To be sure, these two views are not mutually exclusive. For instance, while IFRS may improve firm information environment and contribute to a lower cost of capital, it does not imply that all firms will fully comply with IFRS. Similarly, variation in IFRS compliance and hence disclosure quality does not imply that IFRS has no positive influence on firm information environment. Nonetheless, these two views compel us to think about the forces that shape IFRS compliance and the effects resulting from IFRS compliance. In this paper, we empirically evaluate these questions using firm-level observations from an emerging market: Kenya.

The primary reason we focus on Kenya is that it represents one of the few developing countries to adopt IFRS at the country level. Characteristic of a developing country, it suffers from weak institutions and a lack of resources and infrastructure. For instance, close to 22 percent of the government budget is directed toward debt servicing. As such, Kenya is limited in its ability to carry out effective enforcement with respect to IFRS compliance. Consequently, there can be considerable heterogeneity in IFRS compliance, since compliance levels are likely to be shaped by economic forces that confront the firm (Ball 2006). This lends itself to the purpose of our study. We also focus on Kenya because it offers a unique dataset that specifically measures IFRS compliance. Additionally, prior research has noted that information intermediaries in the form of financial analysts and the media also impact firm information environment (Bushman et al. 2004). However, both these institutions are considerably under-developed in Kenya, effectively increasing financial reporting's role in conveying firm-specific information in our setting. Finally, unlike many other developing markets, Kenya represents a country with relatively open capital markets. This allows us to examine the role of foreign investors in influencing IFRS. As a result, we are able to address two important issues of contention on IFRS adoption: Why do firms comply with IFRS in a country where enforcement of the standards is lax? Do firms reap capital market benefits to higher IFRS compliance levels in a country where enforcement of the standards is lax?

Our data comprise both private and publicly traded Kenyan firm-year observations for the years 2005 through 2006. Our measure of IFRS compliance is obtained from Kenya's Financial Reporting Awards (the FiRe Awards) for 2006. The FiRe Awards were initiated by the Institute of Certified Public Accountants of Kenya (ICPAK). ICPAK's stated objective of the program is to encourage the use of IFRS and promote overall excellence in financial reporting among Kenyan companies. The FiRe Awards program was established in 2002 and involves the evaluation of Kenyan firms' IFRS compliance levels and nine other metrics of disclosure quality. In carrying out our analysis, we also examine whether factors that affect IFRS compliance also impact these nine other disclosure quality measures in the same manner. We gather the remaining accounting and

capital market-based measures from filings with Kenya's Capital Markets Authority (CMA) and the Nairobi Stock Exchange (NSE).

Turning to our analysis, we first evaluate factors that contribute to the cross-sectional variation in IFRS compliance. Here we find that publicly traded firms, as opposed to private firms, display greater IFRS compliance. This is supportive of the argument that financial statements typically represent the primary mechanism through which firm-specific information is conveyed to dispersed, public investors. As a result, public investors should have a greater demand for higher-quality accounting statements than their private counterparts. In contrast to this demand-related argument, an alternative explanation is that publicly traded firms will comply with IFRS to obtain a lower cost of capital. Recent research has noted that information risk has a systematic influence on a firm's cost of capital (Easley and O'Hara 2004; Francis et al. 2004). Again, the argument is that financial statements represent an important mechanism for improving a publicly traded firm's information environment.

We also find a positive association between foreign ownership and IFRS compliance. This is consistent with the argument that foreign investors demand better quality accounting to protect their investment within the firm. One concern here is whether the association between foreign ownership and IFRS compliance reflects a reverse causal relation. Specifically, Bradshaw et al. (2004) note that "greater conformity with accounting practices familiar to foreign investors reduces information processing costs, which allows for more thorough analyses and increases the credibility of the financial information." Consistent with this contention, they find U.S. institutional investor stock holdings in non-U.S. firms increasing with U.S. GAAP conformity. While the lack of time-series data limits our inquiry on the IFRS-foreign ownership relation, we find some evidence that suggests greater foreign ownership leads to more IFRS compliance in our setting. Finally, we also examine the information effects associated with IFRS compliance. To this end, we focus on share turnover, a measure of stock liquidity. Here we find a positive association between IFRS compliance and share turnover.

While any inferences from our study need to be tempered by the fact that the results are drawn from cross-sectional data taken from a small sample of firms in one African market, we feel that our study contributes notably to several streams of extant research. First, we complement and extend research on the use of accounting standards, in particular the IFRS (or the IAS, the immediate forerunner to the current IASB-issued IFRS).[1] One stream of research, such as Ashbaugh (2001), examines firm-level adoption of international accounting standards as opposed to the use of domestic accounting standards. We depart from these studies in that we focus on and examine *compliance with* as opposed to the *adoption of* international accounting standards. We also depart from these studies in that we focus on firm choices within a single country. Prior research has noted that both country- and firm-level factors influence financial reporting decisions (e.g., Ball et al. 2003). In this study, we seek to understand financial reporting decisions within a country characterized by weak institutions and limited resources for enforcement in order to provide a more powerful setting to assess the impact of economic factors on firms' incentive to comply with IFRS.

More germane to our study is the growing research that focuses on country-level adoption of IFRS (Armstrong et al. 2010; Barth et al. 2009; Daske et al. 2008). Much of the recent attention has been directed at IFRS adoption in Europe. For example, Armstrong et al. (2010) find that IFRS adoption events in Europe generated positive capital market reactions. They infer this reaction as indicative of investor perception that IFRS will lead to an improvement in firm information

[1] The International Accounting Standards (IAS) was issued by the International Accounting Standards Committee (IASC). The IASC ran from 1973 through to 2001, when it was succeeded by the IASB. Since 2001, the IASB has been issuing standards referred to as IFRS. To avoid unnecessary confusion, we refer to international accounting standards broadly as IFRS hereafter.

environment. They also find that this market reaction is not uniform across countries, with code law countries displaying a notably weaker reaction. The interpretation here is that accounting standards may not translate into higher disclosure quality if countries are unable to effectively enforce the standards. Daske et al. (2008) echo similar findings. They focus on mandatory IFRS adoption around the world and find that it leads to improvements in liquidity.[2] However, similar to Armstrong et al. (2010), they find that the effects are not uniform across countries, with limited positive effects in low enforcement countries.

To clarify the contribution of this paper *vis-à-vis* the aforementioned studies, a few points are worth noting. First, we differ from both these studies in that we focus on firm compliance *post*-IFRS adoption at the country level. Second, Armstrong et al. (2010) and Daske et al. (2008), document a lower mean country-level effect for countries with weak institutions in place. Our study examines firms within a low enforcement country and finds considerable variation in IFRS compliance. In studying this heterogeneity in compliance, we find that public firms and firms with high foreign ownership systematically exhibit higher compliance rates. We also find that firms do benefit from IFRS compliance, as firms with higher levels of compliance observe larger share turnover. Thus, while the prior literature has found a muted capital market benefit to IFRS adoption in low enforcement countries, we illustrate that mandatory IFRS adoption can still provide benefits to firms in low enforcement countries, provided firms have the economic incentives to achieve higher levels of compliance.

The paper proceeds as follows: The next section provides a background on Kenya's adoption of IFRS, discusses the related literature, and develops the testable hypotheses. The third section describes the sample and the variable construction, and specifies the empirical model we intend to estimate. The fourth section reports and discusses the empirical results, and the final section summarizes and concludes the paper.

II. INSTITUTIONAL BACKGROUND, RELATED LITERATURE, AND HYPOTHESIS DEVELOPMENT

Before discussing the related literature on accounting standards and developing the hypotheses evaluated in this study, it is useful to first discuss the country setting within which we explore these issues.

Kenya: Background

According to the World Economic Forum's (WEF's) Global Competitiveness report (2006–2007), Kenya represents a country that is still in the early stages of economic development. It is classified as being in Stage 1 compared to the U.S. and Australia, which are both classified as Stage 3 countries. Characteristic of this stage of development is an economy that largely relies on its factor endowments, such as natural resources in the form of commodities. The labor is considerably unskilled and hence the wages are, not surprisingly, low. However, Kenya displays several strengths. Kenya has a quality educational system that ranked 34th out of 134 countries surveyed (WEF 2006). Spending on R&D activities is considerably high, and there is close collaboration between research institutions and industry (WEF 2006). Its financial markets are viewed to be sophisticated "with relatively easy access to loans and share issues on the local stock market" (WEF 2006).

However, Kenya's institutional environment is plagued by weak public institutions that rank near the lowest among countries around the world. For instance, Kenya ranks near the bottom with

[2] Daske et al. (2008) find mixed evidence with respect to Tobin's Q and cost of capital.

respect to government inefficiency (101st), corruption (116th), and the use of undue influence (120th).[3] Kenya also has substantial loans outstanding, the servicing of which takes up almost a quarter of the government's budget.

In the 1990s, Kenya experienced several institutional collapses (e.g., banking failures) after which it undertook the privatization of many government-run organizations. Collectively, these events created a push for improved corporate governance, raised the interest in the development of capital markets, and led to the adoption of IAS and IFRS in 1999 (UNCTAD 2006).

In adopting the IFRS, Kenya chose to make its use mandatory for both publicly traded *and* privately held firms. The decision to have private companies adopt IFRS took root in regulations established under the Kenyan Companies Act. This act requires all companies to present accounts that show a true and fair view of the company's affairs. While the act establishes several minimum requirements with respect to financial reporting, it does not provide specific guidance on the type of standards that should be implemented. This task was left to the Institute of Chartered Public Accountants of Kenya (the ICPAK). The ICPAK exercised this authority to require both public and private companies to adopt IFRS, using the cost effectiveness of a uniform set of accounting standards for all companies as justification for universal adoption. An important note is that the ICPAK adopted IFRS "as drafted without amendments except to rename the IFRS as a national standard and/or to translate it into another language." This differs from other countries such as Australia that modified certain options available within the IFRS standards.

Despite being one of the earliest IFRS adopters, the evidence to date suggests that "compliance levels remain quite low among companies in Kenya" (UNCTAD 2006). However, it is equally important to note that the compliance rate is not negligible. Based on the FiRe Awards data for the year 2005, 73 percent of the participating firms exhibited an IFRS compliance rate of more than 50 percent, and 16 percent of the firms were gauged to have an IFRS compliance rate of greater than 80 percent (UNCTAD 2006).

In this study, we attempt to shed further light on IFRS compliance by examining this issue at the firm level. We next describe the related literature before turning to the testable hypotheses.

Related Literature

Financial reporting and its resultant financial statements represent an important source of firm-specific information. A characteristic of financial reporting is that it is prepared in accordance with the accounting standards in place. While a prevailing norm has been the use of domestic accounting standards, there is an increasing push toward the adoption of international accounting standards. A reflection of this push is the trend toward the adoption of the IFRS, as formulated by the IASB.

The basic premise in favor of the use of IFRS is that it provides benefits which exceed the cost of compliance. Ashbaugh and Pincus (2001) note that international accounting standards are superior to domestic accounting standards of certain countries in that they lead to "increased disclosure and/or a restricted set of measurement methods." The resulting implication is that IFRS adoption will lead to improved transparency and higher-quality financial reporting, effectively improving firm information environment (Daske et al. 2008). An improvement in firm information environment may benefit firms in that it reduces adverse selection costs and estimation risks, thus contributing to a lower cost of capital (e.g., Leuz and Verrecchia 2000; Lambert et al. 2007). Furthermore, it can serve to limit managerial discretion by improving outside investors' ability to monitor managers (Bushman and Smith 2001). Besides limiting reporting discretion and requiring greater disclosure, proponents of IFRS also point to the benefit stemming from accounting

[3] Other areas in which Kenya fares poorly include crime and violence (122nd), potential terrorism (127th), organized crime (118th), and health (119th).

harmonization. The argument is that uniform accounting standards across countries improve firm comparability and this in turn improves capital flows.

Extant literature offers several pieces of evidence consistent with the aforementioned arguments. First, Ashbaugh and Pincus (2001) find a negative association between domestic GAAP-IAS differences and analysts' earnings forecast accuracy. After the adoption of IAS, they find a corresponding improvement in analysts' forecast accuracy, suggesting an improvement in firm information environment. Barth et al. (2007) directly examine accounting properties between firms that use domestic GAAP (non-U.S.) and IAS. Based on firm-level observations from 21 countries, they find IAS adopters display lower earnings management, greater conditional accounting conservatism, and higher value relevance.

This evidence notwithstanding, questions have been raised as to whether the shift from domestic GAAP to IFRS will necessarily lead to improved financial reporting and whether IFRS is needed to achieve the goals of higher transparency and financial reporting quality (Ball 2006). There are several reasons related to these concerns. First, financial reporting outcomes are in part shaped by financial reporting incentives (e.g., Leuz et al. 2003; Ball et al. 2003). Accounting standards, be they domestic GAAP or IFRS, provide managers with reporting discretion. The use of this reporting discretion is shaped by reporting incentives, which in turn are influenced by factors that range from country-level institutions (e.g., Ball et al. 2003) to firm-level factors (Ball and Shivakumar 2005; Burgstahler et al. 2006). In light of these reporting incentives, it is far from clear whether IFRS will naturally lead to higher financial reporting quality. This is true irrespective of the enforcement regime in place.

Second, a country's enforcement regime matters. In the presence of lenient enforcement or an absence of enforcement, accounting standards may not be appropriately applied. For instance, Ball et al. (2003) find that while Hong Kong, Malaysia, Singapore, and Thailand adopt accounting standards that are largely related to those of common law countries such as the U.K., the disclosure quality of the firms in these countries is no better than that of code law countries. In particular, Ball et al. (2003) find timely loss recognition by the firms in these four countries to be comparable to that of code law countries. In a similar vein, Lang et al. (2006) find that firms that cross-list in the U.S. display greater earnings management even though they adopt U.S. GAAP. In part, the collective results conform to Siegel's (2009) criticism that foreign firms are not subject to the same level of regulatory scrutiny as applied to domestic U.S. firms.

Third, accounting standards reflect a public good, shaped by regulators who take into consideration the social costs and benefits related to the constituents within their country. Viewed this way, it is far from clear as to whether IFRS is superior to domestic GAAP for the firms of a given country. As Barth et al. (2007) note: "limiting managerial discretion relating to accounting alternatives could eliminate the firm's ability to report accounting measurements that are more reflective of its economic position and performance." Conversely, IFRS, which is principles based, may provide more discretion than that afforded by domestic GAAP. This increase in reporting discretion, without the necessary constraints of enforcement, can be abused and hence result in a decline in reporting quality.

Finally, compliance with IFRS may involve costs that substantially differ from complying with domestic GAAP (Barth et al. 2009). These costs may be non-trivial and limit compliance, particularly by firms with limited financial resources. Again the implication here is that higher-quality accounting standards will not translate into higher-quality financial reporting.

In summary, IFRS can improve financial reporting quality to the extent that it is superior to domestic GAAP. Principally, IFRS may reduce reporting discretion and require greater disclosure. Furthermore, the use of uniform international accounting standards across countries improves comparability, and this too can enhance firm information environment. However, the link between IFRS and financial reporting quality is subject to the caveats that financial reporting is shaped by

reporting incentives, enforcement, the extent to which IFRS is superior to domestic GAAP, and IFRS compliance costs.

To shed further light on IFRS compliance and its effects, we examine these issues within a low enforcement country, Kenya, which mandated the use of IFRS by both private and public companies. Extant research distinguishes between developed and emerging countries. In part, the underlying argument is that these two classes of countries vary in terms of the investor protection laws in place and the enforcement of these laws. Within this framework, accounting and its related statements are viewed to represent an important mechanism through which investor rights are protected. However, empirical evidence in Cairns (1999), Street and Gray (2001), and Burgstahler et al. (2006) suggests that the mere adoption of higher-quality accounting standards does not translate into higher-quality financial reporting.

These results raise the question as to whether improvement in accounting standards can lead to improvements in financial reporting quality in emerging countries. Much of the research to date on this question relates to IFRS adoption and focuses on relatively developed European economies (e.g., Callao et al. 2007). An exception is Ismail et al. (2010), who address the impact of IFRS adoption within the context of Malaysia, an emerging economy. They find that the adoption of IFRS, referred to as Financial Reporting Standards (FRS) in Malaysia, led to an improvement in disclosure quality in terms of lower absolute accruals and higher value relevance of earnings. This evidence suggests that accounting standards can positively impact the quality of accounting outcomes, even in emerging economies. However, it should be noted that Malaysia is considerably more economically developed in comparison to Kenya, the country of interest in this paper (see 2011 Index of Economic Freedom).

Anecdotally, there is also evidence that higher-quality accounting is demanded for contracting purposes, even in emerging economies. For example, McGee and Preobragenskaya (2006) note: "the existence of financial statements prepared using IFRS or US-GAAP is one of the mandatory terms for Russian companies that want to borrow from Western banks." Supportive evidence is also provided by Chen et al. (2010), who find that financial reporting quality reduces investment inefficiencies in emerging economies.

However, unlike the previous literature, which assesses contracting demands and investment efficiencies as potential drivers of IFRS compliance in an emerging market setting, we assess the demands of various types of owners (i.e., public, private, foreign, and domestic) as factors that affect IFRS compliance. Building on this framework, we next develop the testable hypotheses pursued in this study.

The Determinants of Higher IFRS Compliance

In our first two hypotheses, we assess the effect of various types of ownership on IFRS compliance. First, we assess the impact of public versus private ownership. While IFRS adoption is mandated for both public and private Kenyan firms, they may not display identical IFRS compliance. Ball and Shivakumar (2005) note that "private companies are more likely than public companies to communicate privately, on an 'as needed' basis, with shareholders, creditors, employees, suppliers, customers. and others, thereby reducing the demand for public financial reporting quality." In contrast, public firms involve widely dispersed ownership, and hence private communications are often not feasible. In this setting, financial reporting is needed to disseminate and reach these distant investors. Higher-quality financial reporting is beneficial in that it provides superior firm-specific information that can serve toward reducing information asymmetry and limiting agency conflicts through improved external monitoring (Bushman and Smith 2001; Barth et al. 2009).

The upshot here is that differing demands create reporting incentives that vary between private and public firms. Public firms are more likely to comply with IFRS since improved financial reporting will afford both financing and contracting benefits. Consistent with this contention, Ball and Shivakumar (2005) find that private firms in the U.K. display lower disclosure quality, as measured by timely loss recognition, than their peer public firms. Examining firms in Europe, Burgstahler et al. (2006) find that private firms display greater earnings management than public firms, even though both face identical accounting standards. It is interesting to note that while Europe and the U.K. afford a more stringent enforcement regime than Kenya, we still observe systematic differences in financial reporting quality due to reporting incentives. Should such reporting differences also appear in a low enforcement regime such as Kenya? Given the low enforcement regime in place, it is far from clear whether IFRS and its resultant financial reporting provide benefits that have been previously documented in high enforcement countries. If the benefits of adopting IFRS are negligible, then we should not observe distinctions in reporting between private and public firms. In short, it is an empirical issue.

Besides reporting incentives, differences in IFRS compliance can arise from a firm's ability to meet the compliance costs involved. These differences may be more acute in Kenya since private firms are largely small and medium enterprises (SMEs) that may lack the resources needed to comply with these accounting standards. IFRS compliance is costly in Kenya since it lacks the necessary infrastructure, such as a sound accounting education system (UNCTAD 2006). Consequently accountants with the requisite knowledge are in short supply. Furthermore, seminars used to update skills are relatively costly for Kenyan accounting professionals.[4] This has an additional adverse impact on private firms' ability to comply with IFRS standards. In summary we expect that public firms will have a greater incentive to comply with IFRS. Additionally, they are also better able to comply with IFRS requirements. Consequently, we predict the following testable hypothesis:

H1: Public firms, in comparison to private firms, will display greater IFRS compliance in a weak enforcement environment.

Next, we evaluate the role of foreign ownership on IFRS compliance. Kenya undertook both financial liberalization as well as the privatization of its state-owned industries in the 1990s. With respect to financial liberalization, Kenya began with the removal of interest rate ceilings in 1991. This program was expanded in 1995 to allow portfolio capital inflows from abroad (Pill and Pradhan 1997).[5] The push toward privatization of state-owned enterprises (SOEs) was in part induced through external entities such as the World Bank, the International Monetary Fund, and donor countries who made foreign aid conditional on political reform and economic liberalization (Baylies 1995). The entry of foreign capital combined with the privatization of state-owned enterprises led to the formation of newly formed publicly owned corporations with considerable foreign ownership. An illustrative example is Kenya Airways. At the time of its initial public offering, Kenya Airways had a market capitalization of about 6 percent of the total capitalization of the stocks on the NSE. The resultant ownership structure involved the government owning a minority stake of 22 percent, and local and institutional investors and Kenya Airways employees owning a substantially larger stake of 52 percent (Debrah and Toroitich 2005). KLM, the Dutch Airlines, was sold the remaining 26 percent of the shares of Kenya Airways. It agreed not to turnover its ownership stake for five years. In return, it obtained special rights in the form of the

[4] The insight was generated from interviews with ICPAK officials in July 2007.

[5] Evaluating the reforms at the early stages, Pill and Pradhan (1997) note that financial liberalization was not accompanied with needed institutional changes. Hence they predict the impact of financial liberalization to be weak.

rights to appoint two directors to the Board of Directors of Kenya Airways and to nominate future candidates for the positions of managing director and finance director to the board. Debrah and Toroitich (2005) note that Kenya Airways "has in excess of 113,000 shareholders, most of them in East Africa."

However, Kenya did not transform its weak legal and related institutions even as it undertook the privatization of its SOEs. Given the dispersed ownership of a public corporation, this may allow insiders and controlling shareholders to divert firm resources toward their own private benefits to the detriment of minority shareholders (La Porta et al. 1997). However, extant research provides contrary evidence. Debrah and Toroitich (2005) document the transformation of Kenya Airways "from a loss-making state-owned enterprise (SOE) to a very successful, profitable airline."[6] The evidence suggests that foreign investors, principally KLM, played a critical governance role in this success story. It should be noted that SOEs had limited resources and were hugely in debt when they privatized.[7] In other words, there were limited resources that could be diverted toward private benefit. In the case of Kenya Airways, KLM reaped benefits by improving firm performance through induced changes to the operating and reporting systems. The resulting high profitability benefited not only KLM, but also the firm's minority shareholders. In short, the evidence suggests that foreign investors agreed to own these firms with the idea that transformation in the governance of these firms would lead to substantial profits.

To the extent that these foreign investors aimed to improve firm monitoring, we anticipate them to induce greater IFRS compliance in the firms they invest in relative to their domestic counterparts for two reasons. First, unlike the foreign owners in our sample, we cannot confirm that all Kenyan investors invest abroad. Thus, foreign investors should have a relatively greater demand for higher compliance levels from a globally harmonized set of standards. Second, Kenyan investors should have lower degrees of information asymmetry with Kenyan firms because they are both domiciled in the same country (Bae et al. 2008). Thus, higher compliance with IFRS may not be as important in mitigating information asymmetries for Kenyan investors as it is for their foreign counterparts. Taken together, we suggest that higher IFRS compliance levels should be comparatively more important for foreign investors than Kenyan ones. The combined points lead to our second hypothesis:

H2: Foreign ownership will positively impact IFRS compliance in a weak enforcement environment.

The Impact of IFRS Compliance

To the extent that IFRS improves the quantity and quality of the flow of firm-specific information, it should contribute to greater firm transparency. Firm transparency, in turn, can have a positive impact on a firm's stock liquidity. Prior research has noted that information asymmetry hurts uninformed investors *vis-à-vis* informed traders (Easley and O'Hara 2004). This in turn can limit the demand for firm shares and discourage stock turnover. In contrast, improvements in firm information environment reduce the disadvantage of uninformed traders and increase the demand for a firm's stock (e.g., Verrecchia 2001; Diamond and Verrecchia 1991; Easley and O'Hara 2004).

Prior research has shown that adoption of accounting standards impacts stock liquidity. For instance, Leuz and Verrecchia (2000) focus on German firms and find that a voluntary change to

[6] Kenya Airways reported losses in the amount of Kshs 2,061 million in 1993. In 2001, it turned around considerably and reported income that totaled Kshs 2,044 million.

[7] In the case of Kenya Airways, the government was using foreign loans to shore up what, at the time, was a consistently loss-making firm.

U.S. GAAP accounting (a proxy for higher disclosure quality) led to narrower bid-ask spreads and higher share turnover. Bhattacharya et al. (2003) provide similar evidence using multi-country data and find that more opaque financial reporting adversely impacts a firm's cost of equity capital.

To the extent that IFRS compliance improves firm information environment, we expect to observe that higher IFRS compliance levels will have a significant impact on a firm's stock liquidity. Unlike the U.S. or developed capital markets, Kenya has comparatively few information intermediaries, such as financial analysts, to collect and disseminate firm-specific information. In fact, *no* Kenyan firm in our sample has I/B/E/S analyst coverage. Direct conversations with the NSE confirmed that there are no local analysts who provide either public quarterly earnings estimates or public stock price recommendations. The lack of analyst coverage is important since Botosan (1997) illustrates that voluntary disclosures have a stock market impact for only firms with low analyst coverage. Furthermore, Brennan and Subrahmanyam (1995) find that firms with higher analyst coverage exhibit a smaller adverse selection component of the bid-ask spread. The upshot from this line of inquiry is that firm-provided information is significant when there is a limited amount of alternative sources of firm-specific information.

To the extent that IFRS compliance effectively reduces the information asymmetry between the firm and its outside investors and also attenuates the information gap between informed and uninformed investors, it can contribute to greater stock turnover as captured by a high trading volume. Prior research by Brennan and Subrahmanyam (1995) has found that trading volume is a key determinant of stock liquidity. Moreover, Chordia et al. (2001) document a significant association between trading volume and various stock-based measures of firm information asymmetry, such as a firm's bid-ask spread and market depth. In light of these arguments and evidence, we evaluate the impact of IFRS compliance on firm information environment by testing the following hypothesis:

H3: The level of IFRS compliance positively impacts trading volume in a weak enforcement environment.

III. DATA AND EMPIRICAL MODELS

Data

To test our hypotheses, we use a variety of data sources from Kenya covering the years 2005–2007. Our sample construction commences with the IFRS compliance and disclosure quality data compiled by the ICPAK for the 2006 FiRe Awards. As noted earlier, this awards program was initiated by ICPAK to encourage IFRS compliance and quality financial reporting. ICPAK organized the FiRe Awards in conjunction with the NSE and the Kenyan CMA. The awards have been held annually since 2002, and the participating firms are graded with respect to their compliance with IFRS and nine other measures of disclosure quality (see Appendix A for a description of each measure). Awards are presented across several categories spanning both publicly traded and privately held firms. Firm-specific scores are not made public to avoid creating adverse market effects for the firms involved. However, private feedback is offered to participating firms to inform them of their overall evaluated disclosure quality. Since the scores are made by a group of adjudicators from the ICPAK which do not include financial analysts, there is no potential for a bias due to analysts trying to gain access to firm-specific information by currying favor with the firm. These objective measures also remove the need for researchers to formulate their own measures—a process which can also raise concerns of potential biases entering the scoring function.

Our primary variable of interest measures IFRS compliance: *Compliance with IFRS*. However, the FiRe Awards committee also evaluates other aspects of financial reporting, such as a firm's voluntary disclosure policy. The resulting measures offer a valuable opportunity to examine

whether factors that affect IFRS compliance also have a similar positive impact on other facets of disclosure quality. Our analysis involves 2006 FiRe Awards evaluation data, which are based on the 2005 annual financial statements of 78 different companies.[8]

Although the FiRe Awards have existed since 2002, 2006 marked the first year where all the firms that submitted financial statements were comprehensively evaluated on all ten of the financial reporting quality measures. This was due to the fact that in previous years, there was an initial knockout stage after which the highest quality statement issuers proceeded to a second round. It was only then, in this second round, that the remaining firms were comprehensively evaluated. Additionally, the grading scheme changed between 2005 and 2006. For example, in 2006, the evaluators, when assessing the *Compliance with IFRS* category, deducted points for minor and major errors of five and 15 points, respectively, out of a total point base of 95.[9] In 2005, the ICPAK deducted two points for minor errors and five points for major errors out of a total point base of 60. Given both the incomplete ranking from previous years and the changes in scoring, comparing scores from one year to the next via standardized scores or ranks is impossible. As a result, our analysis is restricted to looking at firm-specific IFRS compliance and disclosure quality scores in the cross-section using data from the 2006 awards, as opposed to evaluating any changes over time.

Our initial analysis compares IFRS compliance and other measures of financial reporting quality between private and publicly held firms. However, due to the limited nature of firm-specific information for private firms, market data are only available for public firms. Thus, our extended analysis focuses strictly on public firms. For these publicly traded firms in our sample, one of the co-authors of this study visited Kenya and hand-collected financial statement and other capital market data for the year 2005 from the NSE.[10] From these data sources, we constructed firm-specific accounting and stock-related variables.

Finally, we obtained firm ownership data from the CMA. In 2002, the CMA mandated, via the Foreign Investors Regulations of 2002, that each publicly traded firm must submit a monthly register of the percentage holdings of five types of investors: East African individual investors,[11] East African institutional investors, local individual investors, local institutional investors, and foreign investors.[12] The CMA graciously allowed us access to this data for the month of December 2006. Utilizing the data, we were able to construct the percentage holdings of each of these types of investors for every publicly listed firm on the NSE.

The Determinants of IFRS Compliance

Our first analysis compares IFRS compliance levels and the nine other accounting measures assessed in the FiRe data between private and public firms. Rather than run a univariate regression, we simply assess the means and medians of each disclosure quality measure across the private and public samples.

Next, focusing strictly on the publicly traded firms in our sample, we examine the influence of a firm's ownership structure on both the level of a firm's IFRS compliance and other financial

[8] Several firms have missing scores for some of the quality measures due to illegible score sheets.

[9] Examples of major errors include non-disclosure of revenue, no note on inventory valuation policies, or no property, plant, and equipment (PPE) schedule. Examples of minor errors include inadequate disclosure of contingent liabilities, gains recognized directly in equity (i.e., not segregated), or a lack of disclosure on related party transactions.

[10] The data collection and interviews for this project were gathered and conducted by one of the authors in Nairobi, Kenya, during the summer of 2007.

[11] East African is defined as investors from Tanzania or Uganda—two countries that border Kenya.

[12] A foreign investor is defined as any investor that does not fall into the other four categories.

reporting behavior. Specifically, we examine whether foreign ownership positively impacts IFRS compliance levels and other favorable financial reporting attributes. Based on the CMA ownership classification, we define foreign ownership, *FOREIGN*, for December 2006 as the percentage of stock owned by non-local individual and institutional investors.[13] As noted in H2, we expect the coefficient on *FOREIGN* to be positive.

In addition to foreign ownership, we assess the impact of two other firm stakeholders: creditors and competitors. We use the equity-to-debt ratio for fiscal year 2005, *LEVERAGE*, to proxy for creditor demand. As the use of debt financing increases, this ratio will decline, and there is a higher likelihood that a firm will default on its obligations. As such, we expect that creditors will increase the demand for more firm-specific information as debt levels increase, to ensure that the control of the firm is promptly shifted from equity holders to creditors if default appears likely. Hence, we expect a negative coefficient on this variable.

We also address the impact of the firm's product market competition by including the variable *COMP* in our analysis. *COMP* measures the number of publicly traded firms in the firm's sector. Appendix B provides a breakdown of the NSE firms by sector. The categories are generated by business descriptions provided in the NSE handbook. Prior research has noted that the flow of firm-specific information, while beneficial to a firm's investors, can have a detrimental effect on a firm's competitive position (Verrecchia 2001). Consequently, theory predicts that firms in more competitive product market environments will disclose *less* information (Verrecchia 2001). To the extent that IFRS improves firm transparency, firms in competitive environments may be reticent in complying with its standards. Thus, we expect *COMP* to be negatively signed with respect to IFRS compliance.

We finally include several additional control variables in our empirical model. We include B/P, the book-to-price per share ratio for fiscal year 2005. Similarly, we include D/P, the dividend-to-price yield for the same time period. Both variables proxy for a firm's growth opportunities. To the extent that growth opportunities create a demand for external financing, we expect both proxies to positively impact IFRS compliance. The argument here is that improved firm transparency contributes to a lower cost of external financing (Easley and O'Hara 2004). We also include a size variable, *LG ASSETS*, measured as the natural log of total assets in Kenyan shillings ('000s) for fiscal 2005. Finally, we include a measure of firm profitability, *ROE*, the return on equity for fiscal 2005. If IFRS compliance cost is an economic deterrent, then we expect higher IFRS compliance to be associated with larger and more profitable firms. However, the same relation may not hold true for the other modes of financial reporting which largely involve discretionary decisions on management's part.

We do not control for audit quality since all of the NSE firms use a Big 4 auditor. We also do not control for alternative sources of firm-specific information such as financial analysts since this market is largely absent in Kenya. The empirical models that we estimate using our sample of publicly traded firms from the FiRe Awards database are specified as follows:

$$IFRS\_COMP_i = \alpha_0 + FOREIGN_i{*}\beta_1 + LEVERAGE_i{*}\beta_2 + COMP_i{*}\beta_3 + B/P_i{*}\beta_4 + D/P_i{*}\beta_5 + LG\ ASSETS_i{*}\beta_6 + ROE_i{*}\beta_7 + \varepsilon_i, \text{ and} \tag{3.2a}$$

[13] In other words, *FOREIGN* incorporates investors in the foreign investor and East African investor classes.

$$QUALITY_{iq} = \alpha_0 + FOREIGN_i{*}\beta_1 + LEVERAGE_i{*}\beta_2 + COMP_i{*}\beta_3 + B/P_i{*}\beta_4 + D/P_i{*}\beta_5 + LG\ ASSETS_i{*}\beta_6 + ROE_i{*}\beta_7 + \varepsilon_i. \quad (3.2b)$$

The Impact of Higher IFRS Compliance on Trading Volume

To evaluate the impact of IFRS compliance on firm information environment, we test whether higher IFRS compliance leads to higher trading volume. We focus on this metric for two reasons. First, both theory and evidence suggest that an improvement in firm information environment will lead to a higher trading volume. Second, and maybe more importantly, trading volume represents the only valid proxy for a firm's information environment that we have access to, given both limited Kenyan stock market data and the lack of analyst markets in the country. Nonetheless, a range of studies has shown the reliability of the trading volume measure as a measure of firm information environment (e.g., Brennan and Subrahmanyam 1995). We use a firm's median monthly share turnover from July 2006–June 2007 for our analysis.[14]

In order to expand the sample to as many firm-year observations as possible (and to also increase the robustness of the results and assuage the small sample limitations of this paper), we create *PRED IFRS*—the fitted IFRS compliance estimate for firm *i*, for *all* firms with turnover data in the NSE in 2006. *PRED IFRS* is a predicted IFRS compliance score that is constructed by applying the coefficient estimates from the *Compliance with IFRS* model in 3.2a to observable market data for *all* NSE firms. By following this procedure, we generate predicted IFRS compliance scores for not only the firms competing for the FiRe Awards, but for all NSE firms with turnover data for 2006 (a total of 42 firms).[15] We regress share turnover on *PRED IFRS*, controlling for variables previously found to be relevant in this setting. The regression is described below:

$$TURNOVER_i = \alpha_0 + PRED\ IFRS_i{*}\beta_1 + FOREIGN_i{*}\beta_2 + BIG_i{*}\beta_3 + CROSS_i{*}\beta_4 + FIRM\ VALUE_i{*}\beta_5 + LEVERAGE_i{*}\beta_6 + \varepsilon_i. \quad (3.3)$$

$TURNOVER_i$ is defined as follows:

$$TURNOVER_i = median\left(\frac{(avg.\ share\ price_{im}{*}number\ of\ shares\ traded_{im})}{market\ value\ of\ all\ shares_{im}}\right)_i,$$

where *i* represents the firm and *m* the months from July 2006–June 2007. In the months where a firm does not trade, we assign the firm-month turnover a value of 0.

Given the prediction in H3, we expect *PRED IFRS* to have a positive impact on trading volume. We also included several control variables. We control for foreign holdings with *FOREIGN* as defined earlier. Tesar and Werner (1995) illustrate that share turnover is higher for non-residents (i.e., foreign investors) than residents. Hence, we expect the coefficient on *FOREIGN* to be positive. We identify closely held firms by including the variable *BIG*, which measures the percentage holdings of a firm's largest shareholder. We expect its coefficient to be negatively signed, because large block shareholders are less likely to actively trade their investment in a company. We include *CROSS*, an indicator variable that takes on a value of 1 when a sample firm is cross-listed on the Tanzanian or Ugandan exchange. Domowitz et al. (1998) find that when shares are listed in both foreign and domestic exchanges, stocks become less liquid in the domestic market following cross-listing. Hence we expect the coefficient on *CROSS* to be signed negatively. Finally,

[14] We choose this one-year period, as June 30, 2006, is the deadline for submission for the 2006 FiRe Awards. Thus by the beginning of July 2006, all annual reports for 2005 should have been made public.

[15] We note that all of our results are robust when run on only the 29 firms in the FiRe sample.

we include *FIRM VALUE*—the natural log of firm *i*'s market value at the end of fiscal 2005, and, as we cannot construct firm-specific betas due to a lack of return data, we include *LEVERAGE* as defined in Table 3, to proxy for return volatility.

IV. RESULTS

Table 1 provides descriptive statistics and correlations for the IFRS compliance metric and the nine other disclosure quality measures assessed by the FiRe Awards. There are several points worth noting. First, there is only weak evidence of a complementary or substitute relation between IFRS compliance and other attributes of disclosure quality. For instance, *Compliance with IFRS* appears to be significant and positively correlated with only the *Additional Voluntary Disclosures* and *Design Layout* measures. There are two interpretations for these results. First, if foreign ownership is a predictor of IFRS compliance, it is possible that Kenyan firms that are *domestically* owned will have low values of IFRS compliance, but still seek to have higher levels of other disclosure quality measures in general. This outcome would drive the correlation coefficients between *Compliance with IFRS* and the remaining disclosure quality measures toward zero. Second, with the exception of the *Compliance with Companies Act* measure, the remaining disclosure quality measures reflect financial reporting behavior, wherein the firm or the manager has *considerable* discretion (e.g., the layout of the financial statements, clarity or readability of documents, and voluntary disclosure). In contrast, the *Compliance with IFRS* measure captures compliance with mandated standards (e.g., the extent to which firms apply revenue recognition rules and inventory valuation methods correctly). Thus the *Compliance with IFRS* measure should capture reporting behavior involving *limited* discretion. Taken together, the limited correlations between *Compliance with IFRS* and the remaining measures may suggest that the forces that shape discretionary reporting behavior are not necessarily the same ones that shape the mandated reporting behavior of IFRS compliance.

In Table 1, Panel B, we report the impact of public/private ownership type on IFRS compliance and the nine other disclosure quality variables. Most notably, we find that mean and median of our primary variable of interest, *Compliance with IFRS*, is higher for publicly held firms. This result is supportive of our arguments that financial reporting plays a more important role for public firms, creating an incentive for these firms to be compliant with IFRS. Turning to the other accounting and firm quality measures, we find that publicly owned firms exhibit a higher mean and median level of disclosure quality for four of the other disclosure quality variables. In contrast to this positive association, publicly traded firms score statistically *lower* than privately held firms in the *Compliance with the Kenyan Companies Act* measure. The Kenyan Companies Act, which was established in 1949, contains basic laws pertaining to financial reporting. However, several of these laws contradict IFRS.[16] The significantly lower values for publicly held firms might indicate that when there is a conflict between domestic GAAP and IFRS, private firms remain consistent with older, domestic law, whereas publicly traded firms are more likely to comply with IFRS.

The remainder of our analysis focuses on publicly held firms since market-based, firm-level data on privately held firms are not available. Table 2 reports the descriptive statistics and correlations for our sample of publicly held firms. Of primary interest to this study are the ownership variables. First, there is considerable foreign investment in Kenyan companies, with a mean foreign ownership ratio of 31.8 percent. Second, decomposing the foreign ownership variable, we find that most foreign ownership involves large ownership stakes by a few foreign

[16] For example, with respect to audits, "[The] Act further specifies that the auditors' report should appear as an annex to the profit and loss account and balance sheet and prescribes the contents of the auditors' report. However, the Act does not specifically require the auditor to conduct audits in accordance with International Standards of Auditing" (UNCTAD 2006).

TABLE 1

Descriptive Statistics

Panel A: Disclosure Quality Measure Spearman and Pearson Correlation Matrix

	Compliance with IFRS	Voluntary Disclosures	Compliance with Companies Act	Clarity of Accounting Policies	Clarity of Notes to F/S	Design Layout	Board and Management Reports	Presentation of Performance Data	Corporate Governance	Corporate Social Responsibility
Compliance with IFRS	1	0.371***	0.150	0.158	0.159	0.415***	0.086	0.045	0.103	0.242**
Voluntary Disclosures	0.341***	1	−0.063	−0.080	0.179	0.341**	0.182	0.036	0.173	0.172
Compliance with Companies Act	−0.103	−0.018	1	−0.184	−0.183	−0.052	−0.014	−0.089	−0.126	−0.118
Clarity of Accounting Policies	0.085	−0.003	−0.133	1	0.270***	0.013	0.126	0.146	0.053	0.050
Clarity of Notes to F/S	0.034	0.190	−0.112	0.557***	1	0.303***	0.278**	0.186	0.324***	0.249**
Design Layout	0.393***	0.298***	−0.004	0.049	0.266**	1	0.357***	0.452***	0.286**	0.276**
Board and Management Reports	0.062	0.194	0.056	0.184	0.344***	0.361***	1	0.383***	0.417***	0.499***
Presentation of Performance Data	0.030	0.100	−0.021	0.141	0.211*	0.432***	0.344***	1	0.327***	0.331**
Corporate Governance	0.109	0.193*	−0.123	0.145	0.365***	0.331***	0.469***	0.353***	1	0.444***
Corporate Social Responsibility	0.208*	0.141	−0.062	0.068	0.255**	0.270**	0.468***	0.278***	0.457***	1

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
Disclosure quality measures are defined in Appendix A. All firm scores are reported as a percentage of the maximum score possible for each measure. Spearman (Pearson) correlations appear above (below) the diagonal.

(continued on next page)

TABLE 1 (continued)

Panel B: Descriptive Statistics of Sample IFRS Compliance, Accounting, and Firm Quality Scores: Public and Private Firms

	Compliance with IFRS	Voluntary Disclosures	Compliance with Companies Act	Clarity of Accounting Policies	Clarity of Notes to F/S	Design Layout	Board and Management Reports	Presentation of Performance Data	Corporate Governance	Corporate Social Responsibility
Private Sample										
Mean	0.583	0.313	0.909	0.813	0.726	0.634	0.540	0.232	0.410	0.535
Median	0.684	0.200	1.000	0.800	0.800	0.600	0.500	0.200	0.400	0.475
Std.	0.271	0.302	0.150	0.236	0.254	0.207	0.271	0.224	0.280	0.522
n	46	46	46	46	46	44	44	44	48	48
Public Sample										
Mean	0.711	0.534	0.814	0.883	0.938	0.734	0.584	0.308	0.742	0.692
Median	0.789	0.600	0.800	1.000	1.000	0.800	0.600	0.250	0.750	0.575
Std.	0.231	0.330	0.177	0.136	0.108	0.218	0.199	0.252	0.276	0.579
n	29	29	29	29	29	29	29	29	30	30
Diff. in means across the samples	0.128**	0.221***	−0.095**	0.070	0.212***	0.100*	0.044	0.076	0.332***	0.156
Diff. in medians across the samples	0.105**	0.400***	−0.200***	0.200	0.200***	0.200**	0.100	0.050	0.350***	0.100

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
Disclosure quality measures are defined in Appendix A. All firm scores are reported as a percentage of the maximum score possible for each measure.

(continued on next page)

TABLE 1 (continued)

Panel C: Disclosure Quality Measure Spearman and Pearson Correlation Matrix (Public Sample Only)

	Compliance with IFRS	Voluntary Disclosures	Compliance with Companies Act	Clarity of Accounting Policies	Clarity of Notes to F/S	Design Layout	Board and Management Reports	Presentation of Performance Data	Corporate Governance	Corporate Social Responsibility
Compliance with IFRS	1	0.084	−0.202	0.143	0.171	0.471***	0.027	0.089	−0.127	0.409**
Voluntary Disclosures	0.061	1	0.069	−0.570***	0.022	0.046	−0.033	−0.059	−0.339*	−0.030
Compliance with Companies Act	−0.221	0.028	1	−0.006	0.160	0.134	0.210	0.235	−0.221	−0.156
Clarity of Accounting Policies	0.284	−0.510***	0.069	1	0.194	−0.069	−0.192	−0.092	−0.103	−0.056
Clarity of Notes to F/S	0.250	0.082	0.345*	0.263	1	−0.034	0.163	−0.097	−0.272	0.138
Design Layout	0.384**	0.048	0.154	−0.075	−0.027	1	0.429***	0.558**	0.181	0.600***
Board and Management Reports	−0.068	−0.028	0.240	−0.218	0.100	0.506***	1	0.353*	0.266	0.386**
Presentation of Performance Data	0.029	0.002	0.295	−0.077	−0.008	0.489***	0.277	1	0.354*	0.440**
Corporate Governance	−0.179	−0.194	−0.130	−0.211	−0.293	0.382**	0.371**	0.311	1	0.213
Corporate Social Responsibility	0.344	0.017	−0.105	−0.097	0.109	0.561***	0.381**	0.280	0.245	1

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
Disclosure quality measures are defined in Appendix A. All firm scores are reported as a percentage of the maximum score possible for each measure. Spearman (Pearson) correlations appear above (below) the diagonal.

TABLE 2

Descriptive Statistics

Panel A: Descriptive Statistics of Market Data for Publicly Held Firms

	ICPAK Data	NSE and CMA Data							CMA Ownership Partitions			
	Compliance with IFRS	*FOREIGN*	*LEVERAGE*	*COMP*	*B/P*	*D/P*	*LG ASSETS*	*ROE*	*BIG FOREIGN*	*RESIDUAL FOREIGN*	*EAST AFRICAN*	*LOCAL*
Mean	0.711	0.318	1.447	4.767	0.888	0.028	16.025	0.174	0.270	0.041	0.007	0.682
Median	0.789	0.274	0.773	3.000	0.596	0.031	16.004	0.188	0.174	0.010	0.000	0.726
Std.	0.231	0.312	2.120	3.308	0.849	0.020	1.292	0.127	0.300	0.068	0.019	0.312
Minimum	0.000	0.000	0.110	1.000	0.171	0.000	13.797	−0.143	0.000	0.000	0.000	0.117
Maximum	1.000	0.883	11.004	9.000	2.983	0.061	18.462	0.462	0.882	0.301	0.091	1.000
n	29	30	30	30	30	30	30	30	30	30	30	30

Panel B: Correlation Matrix for Market Data for Publicly Held Firms

	Compliance with IFRS	*FOREIGN*	*LEVERAGE*	*COMP*	*B/P*	*D/P*	*LG ASSETS*	*ROE*	*BIG FOREIGN*	*RESIDUAL FOREIGN*	*EAST AFRICAN*	*LOCAL*
Compliance with IFRS	1	0.249	0.347*	−0.081	0.154	0.142	0.057	−0.096	0.317*	0.117	−0.233	−0.249
FOREIGN	0.308*	1	0.022	−0.154	−0.195	0.150	−0.009	0.147	0.952***	0.261	−0.149	−1***
LEVERAGE	0.296	−0.108	1	−0.406**	0.143	0.142	−0.548***	−0.107	0.048	0.029	−0.067	−0.022
COMP	−0.117	−0.026	0.061	1	0.086	−0.100	0.278	−0.477*	−0.107	−0.380	−0.350*	0.154
B/P	0.180	−0.189	0.162	−0.021	1	−0.166	−0.102	−0.648*	−0.200	0.181	−0.036	0.195
D/P	0.037	0.120	0.145	−0.125	−0.138	1	0.200	0.392**	0.126	0.076	0.111	−0.150
LG ASSETS	−0.012	−0.003	−0.321*	0.367	−0.043	0.244	1	0.047	−0.048	0.098	−0.155	0.009
ROE	−0.045	0.077	−0.235	−0.470***	−0.548***	0.449**	0.022	1	0.144	0.088	0.218	−0.147
BIG FOREIGN	0.311*	0.963***	−0.065	−0.016	−0.175	0.128	−0.035	0.056	1	0.091	−0.164	−0.952***
RESIDUAL FOREIGN	0.092	0.294	−0.156	−0.063	−0.069	−0.028	0.124	0.088	0.028	1	0.429**	−0.261
EAST AFRICAN	−0.168	0.168	−0.182	0.051	−0.093	0.043	0.054	0.061	−0.068	0.790***	1	0.149
LOCAL	−0.308*	−1***	0.108	0.026	0.189	−0.120	0.003	−0.077	−0.963***	−0.294	−0.168	1

(continued on next page)

TABLE 2 (continued)

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
Compliance with IFRS is defined in Appendix A.

Variable Definitions:
FOREIGN = percentage of firm *i*'s shares held by foreign owners on December 31, 2006;
LEVERAGE = equity-to-debt ratio for firm *i* for fiscal 2005;
COMP = number of firms in firm *i*'s sector as listed in Appendix B;
B/P = book-to-market ratio for firm *i* for fiscal 2005;
D/P = dividend yield for firm *i* for fiscal 2005;
LG ASSETS = natural log of assets for firm *i* for fiscal 2005, in Kenyan shillings ('000s);
ROE = return on book equity for firm *i* for fiscal 2005;
BIG FOREIGN = percentage holdings of firm *i*'s largest foreign shareholder. In three cases, the largest foreign shareholder did not register in the top 40 shareholders. As a result, *BIG FOREIGN* is assigned a value of 0 for these firms (each of these three firms had less than 2 percent foreign ownership in total). In one case it was clear that one shareholder had equally divided her holdings into two holding companies. As a result, in this one case, we aggregate the ownership of both holding companies to generate a value for *BIG FOREIGN*. However, the results remain robust to not aggregating this investor's holding companies;
EAST AFRICAN = percentage of firm *i*'s shares held by East African institutions and individuals;
RESIDUAL FOREIGN = *FOREIGN* − *BIG FOREIGN* − *EAST AFRICAN*; and
LOCAL = percentage of firm *i*'s shares held by Kenyan institutions and individuals.

investors. To be specific, each sample firm's largest foreign investor holds an average 27 percent ownership interest in the firm. Finally, in Panel B, we find that *Compliance with IFRS* is significantly and positively correlated with *FOREIGN*.

In Table 3, we explore the determinants of the various disclosure quality measures for the subsample of publicly held firms. In column 1 of Table 3, we report the estimates associated with *Compliance with IFRS* as the dependent variable. For this model, only two determinants are found to be highly significant—*FOREIGN* and *LEVERAGE*. We find the coefficient on *FOREIGN* to be positive and statistically significant. We also find this variable to be economically significant. Specifically, *ceteris paribus*, a firm that is completely foreign owned would have a *Compliance with IFRS* score that is approximately 30 percent higher than the score of a firm that is wholly owned by local Kenyans.

Next, we delve into the causal link between foreign ownership and *Compliance with IFRS*. Delving into this causal link is important because of arguments that support the relationship moving in either direction. Specifically, while we suggest that higher foreign ownership leads to higher IFRS compliance levels, the extant literature has also pointed to a reverse causal relation (e.g., Bradshaw et al. 2004; Covrig et al. 2007). For example, Bradshaw et al. (2004) argue that U.S. investors are more likely to invest in foreign firms that use accounting standards that are close to U.S. GAAP; that conformity with U.S. GAAP improves firm comparability and reduces the "information processing costs" involved; and that U.S. GAAP conformity increases the perceived quality of the foreign firm involved. If we parallel the arguments of U.S. GAAP to IFRS, it may also be the case that higher IFRS compliance drives higher foreign ownership, and not vice versa.

We attempt to provide insight on to the causal link between foreign ownership and IFRS compliance by breaking *FOREIGN* into three components: *BIG FOREIGN*—the percentage of firm *i*'s shares owned by its largest foreign owner, *EAST AFRICAN*—the percentage of firm *i*'s shares owned by East African owners,[17] and *RESIDUAL FOREIGN*—the remaining percentage of firm *i*'s shares held by foreign owners who are not represented in the previous two categories. We also assess the impact of *LOCAL*—the percentage of firm *i*'s shares held by Kenyans.

Alternately substituting the *LOCAL* variable and each of the aforementioned components for *FOREIGN* into Model 3.2a, we find several results that we present in Table 4. We find that only the large foreign investor variable, *BIG FOREIGN,* is positive and statistically significant when substituted in place of *FOREIGN* in Model 3.2a. Conversely, both *RESIDUAL FOREIGN* and *EAST AFRICAN* display coefficients that are not statistically significant when substituted for *FOREIGN* in 3.2a. Finally, *LOCAL*, as the complement of *FOREIGN*, is significant but signed negatively when substituted for *FOREIGN* in 3.2a.

The results imply that the proportion of shares held by the *largest* foreign shareholder is driving the correlation between foreign ownership and higher IFRS compliance levels in our setting. Presumably, the bigger the proportion of shares owned by the biggest foreign owner, the more likely that that owner *did not* invest in the company because its statements were compliant with IFRS, but rather insisted on higher IFRS compliance following investment (as in the case of KLM's investment in Kenya Airways). Also, if the causal link in our sample ran from higher IFRS compliance to higher foreign investment, we might expect to see a positive, significant coefficient on *RESIDUAL FOREIGN* or *EAST AFRICAN*, which we do not. To repeat however, without the benefit of observing changes in IFRS compliance and foreign ownership variables over time, this evidence should be viewed as being simply suggestive.

[17] In no case is the largest foreign owner an East African. In three cases, the largest foreign owner was not one of the top 40 shareholders. In these instances we assign *BIG FOREIGN* a value of 0 percent. In each of these three cases, total foreign ownership other than shares owned by East Africans was less than 1.5 percent, and East African ownership was less than 1 percent.

TABLE 3

Regressions of Disclosure Quality Measures on Firm Characteristics Using the Public Firms in the FiRe Sample

$$IFRS\_COMP_i = \alpha_0 + FOREIGN_i{*}\beta_1 + LEVERAGE_i{*}\beta_2 + COMP_i{*}\beta_3 + B/P_i{*}\beta_4 + D/P_i{*}\beta_5 + LG\ ASSETS_i{*}\beta_6 + ROE{*}\beta_7 + \varepsilon_i.$$

$$QUALITY_{iq} = \alpha_0 + FOREIGN_i{*}\beta_1 + LEVERAGE_i{*}\beta_2 + COMP_i{*}\beta_3 + B/P_i{*}\beta_4 + D/P_i{*}\beta_5 + LG\ ASSETS_i{*}\beta_6 + ROE{*}\beta_7 + \varepsilon_i.$$

	Compliance with IFRS	Voluntary Disclosures	Compliance with Companies Act	Clarity of Accounting Policies	Clarity of Notes to F/S	Design Layout	Board and Management Reports	Presentation of Performance Data	Corporate Governance	Corporate Social Responsibility
Intercept	−0.170	−1.243*	0.287	1.360***	0.746**	−1.050**	−0.460	−0.696	1.156*	−2.693**
(Std. error)	(0.453)	(0.638)	(0.267)	(0.331)	(0.315)	(0.375)	(0.465)	(0.601)	(0.598)	(1.240)
FOREIGN	0.304**	−0.102	−0.058	0.085	0.063	0.174	−0.024	0.022	−0.186	0.492*
(Std. error)	(0.133)	(0.161)	(0.058)	(0.071)	(0.055)	(0.105)	(0.109)	(0.135)	(0.146)	(0.287)
LEVERAGE	0.051**	−0.024	0.007	−0.012	0.010*	0.048***	0.024**	0.015	0.011	0.109**
(Std. error)	(0.016)	(0.020)	(0.011)	(0.012)	(0.005)	(0.013)	(0.010)	(0.019)	(0.012)	(0.043)
COMP	−0.012	0.044**	−0.009	−0.019*	−0.008	−0.011	−0.011	0.017	0.010	−0.085**
(Std. error)	(0.012)	(0.021)	(0.008)	(0.009)	(0.008)	(0.013)	(0.015)	(0.017)	(0.019)	(0.032)
B/P	0.067	0.030	−0.189***	−0.001	−0.045	0.005	−0.048	−0.042	0.047	−0.180
(Std. error)	(0.047)	(0.088)	(0.027)	(0.033)	(0.034)	(0.052)	(0.067)	(0.064)	(0.072)	(0.113)
D/P	−2.466	−1.571	0.371	0.997	−0.864	0.562	−0.039	4.009	6.384**	0.141
(Std. error)	(2.444)	(3.502)	(0.120)	(1.354)	(1.174)	(2.180)	(1.699)	(3.031)	(2.450)	(5.199)
LG ASSETS	0.045*	0.093**	0.058***	−0.019	0.021	0.104***	0.073**	0.053	−0.036	0.237***
(Std. error)	(0.026)	(0.042)	(0.017)	(0.024)	(0.021)	(0.025)	(0.033)	(0.038)	(0.039)	(0.079)
ROE	0.331	0.913	−1.114***	−0.656**	−0.409	0.130	−0.337	−0.165	−0.265	−0.971
(Std. error)	(0.473)	(0.733)	(0.250)	(0.274)	(0.316)	(0.323)	(0.475)	(0.490)	(0.501)	(1.082)
n	29	29	29	29	29	29	29	29	29	30
R^2	0.313	0.465	0.697	0.374	0.237	0.448	0.198	0.333	0.289	0.363

(continued on next page)

TABLE 3 (continued)

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
Each disclosure *QUALITY* measure is defined in Appendix A, and the dependent variable comprises firm-specific scores as a percentage of the maximum score possible for each measure. All standard errors correct for heteroscedasticity.

Variable Definitions:
FOREIGN = percentage of firm *i*'s shares held by foreign owners on December 31, 2006;
LEVERAGE = equity-to-debt ratio for firm *i* for fiscal 2005;
COMP = number of firms in firm *i*'s sector as listed in Appendix B;
B/P = book-to-market ratio for firm *i* for fiscal 2005;
D/P = dividend yield for firm *i* for fiscal 2005;
LG ASSETS = natural log of assets for firm *i* for fiscal 2005, in Kenyan shillings ('000s); and
ROE = return on book equity for firm *i* for fiscal 2005.

TABLE 4

Regressions of *Compliance with IFRS* Scores on Firm Characteristics Using the Public Firms in the FiRe Sample

$$IFRS\_COMP_i = \alpha_0 + INVESTOR_{it}*\beta_1 + LEVERAGE_i*\beta_2 + COMP_i*\beta_3 + B/P_i*\beta_4 + D/P_i*\beta_5 + LG\ ASSETS_i*\beta_6 + ROE*\beta_7 + \varepsilon_i.$$

	Compliance with IFRS	Compliance with IFRS	Compliance with IFRS	Compliance with IFRS
Intercept	−0.191	0.117	0.119	0.134
(Std. error)	(0.463)	(0.534)	(0.519)	(0.430)
BIG_FOREIGN	0.314**			
(Std. error)	(0.127)			
RESIDUAL_FOREIGN		0.390		
(Std. error)		(0.397)		
EAST_AFRICAN			−1.066	
(Std. error)			(1.635)	
LOCAL				−0.304**
(Std. error)				(0.132)
LEVERAGE	0.050***	0.042***	0.040***	0.050***
(Std. error)	(0.015)	(0.013)	(0.013)	(0.016)
COMP	−0.012	−0.012	−0.013	−0.012
(Std. error)	(0.012)	(0.014)	(0.014)	(0.012)
B/P	0.066	0.041	0.037	0.067
(Std. error)	(0.046)	(0.050)	(0.050)	(0.047)
D/P	−2.567	−1.185	−1.186	−2.466
(Std. error)	(2.407)	(1.934)	(1.795)	(2.444)
LG_ASSETS	0.048*	0.034	0.036	0.045
(Std. error)	(0.027)	(0.035)	(0.034)	(0.026)
ROE	0.336	0.146	0.141	0.331
(Std. error)	(0.474)	(0.480)	(0.487)	(0.473)
n	29	29	29	29
R^2	0.310	0.166	0.161	0.313

*, **, *** Represent p-values of 10 percent, 5 percent, and 1 percent, respectively.
The *QUALITY* measure used for the dependent variable is *Compliance with IFRS*, which is defined in Appendix A. All firm scores are reported as a percentage of the maximum score possible.
All remaining variables are defined in Table 3. All standard errors correct for heteroscedasticity.

Variable Definitions:
INVESTOR = investor type *t* for firm *i*, where *t* represents one of four investor classes as follows:
BIG FOREIGN = percentage holdings of firm *i*'s largest foreign shareholder. In three cases, the largest foreign shareholder did not register in the top 40 shareholders. As a result, we assign *BIG FOREIGN* a value of 0 for these firms (each of these three firms had less than 2 percent foreign ownership in total). In one case it was clear that one shareholder had equally divided its holdings into two holding companies. As a result, in this one case, we aggregate the ownership of both holding companies to generate a value for *BIG FOREIGN*. However, the results remain robust to not aggregating this investor's holding companies;
EAST AFRICAN = percentage of firm *i*'s shares held by East African institutions and individuals;
RESIDUAL FOREIGN = *FOREIGN* (as defined in Table 3) − *BIG FOREIGN* − *EAST AFRICAN*; and
LOCAL = percentage of firm *i*'s shares held by Kenyan institutions and individuals.

TABLE 5

Regression of Median Turnover on *PRED_IFRS* Compliance Scores

	Coeff.	Std. Error	t-value	p-value
Intercept	−0.0059	0.0146	−0.40	0.690
PRED_IFRS	0.0315	0.0126	2.51	0.017
FOREIGN	−0.0214	0.0055	−3.93	0.000
BIG	−0.0003	0.0001	−1.82	0.078
CROSS	−0.0067	0.0034	−1.99	0.055
FIRM_VALUE	0.0001	0.0008	0.15	0.880
LEVERAGE	−0.0011	0.0007	−1.58	0.124
n	42			
R^2	0.2583			

All standard errors correct for heteroscedasticity.

Variable Definitions:
Turnover = median (monthly turnover/market capitalization) for firm *i* from July 2006–June 2007;
PRED IFRS = fitted IFRS compliance estimate for firm *i*, for all firms with turnover data in the NSE. It is constructed using observable market data, and the coefficient estimates from the estimation of Model 3.2a, when *Compliance with IFRS* is the dependent variable;
FOREIGN = percentage of firm *i*'s shares held by foreign owners on December 31, 2006;
BIG = percentage holdings of the firm's largest shareholder;
CROSS = dummy variable where 1 indicates that firm *i* is cross-listed on either the Tanzanian or Ugandan exchange;
FIRM VALUE = natural log of firm *i*'s market value as of December 31, 2005; and
LEVERAGE = total equity/total liabilities for firm *i* for fiscal 2005.

In Table 5, we explore the benefit of IFRS compliance. Specifically, we assess the impact of IFRS compliance on median monthly turnover levels.[18] We find the coefficient on *PRED IFRS* to be positive and statistically significant at the 5 percent level. This finding is consistent with Leuz and Verrecchia (2000), who find that higher quality disclosure leads to higher turnover. The results also provide support for the suggestion in Daske et al. (2008) that the lack of capital market consequences to mandatory IFRS adoption in weak regulatory environments is, in part, driven by heterogeneity in compliance levels across firms.

Finally, note that, counter to our prediction, the coefficient on *FOREIGN* in Table 5 is negative and significant. Our collective empirical evidence, together with our background research on Kenyan firms, suggests that foreign ownership has two distinctive and opposite effects on share turnover in the Kenyan setting. First, foreign ownership in Kenya is typically tightly concentrated in the hands of a few owners who have large controlling stakes in the firms they invest in. It should also be noted that these foreign owners are less likely to turn over their shares as compared to foreign owners of other economies where shares are more widely held. The negative relation between foreign ownership and turnover is supportive of this point. Second, foreign ownership appears to also positively impact turnover via its impact on improving IFRS compliance. In summary, foreign ownership in the Kenyan setting impacts turnover in two opposing ways. By controlling for foreign ownership directly in the turnover model, we are able to glean its more subtle effect on improving turnover through its impact on improving IFRS compliance.

[18] One firm from our sample did not have turnover data as it was suspended from trading over our estimation period. As a result, the sample of the median turnover test comprises 28 firms.

V. CONCLUSION

This paper examines two issues related to country-level adoption of IFRS. First, what factors influence IFRS compliance following IFRS adoption in a weak enforcement environment? Second, does IFRS compliance improve a firm's information environment in a weak enforcement economy? Two competing views motivate this inquiry. One view is that IFRS, as opposed to domestic GAAP, limits managerial discretion and imposes greater disclosure requirements. The implication here is that higher-quality accounting standards will lead to higher-quality financial reporting and transparency. A contrary view is that higher-quality accounting standards need not necessarily lead to higher-quality financial reporting. There are four arguments related to this position. First, disclosure quality is ultimately shaped by reporting incentives, and hence accounting standards *per se* may have a limited impact on transparency if the costs to compliance are too high. Second, low enforcement may result in firms failing to comply with IFRS standards, and consequently, reporting quality may not improve. Third, domestic GAAP may be superior to IFRS in that it was developed by taking into consideration country-specific needs. Finally, IFRS compliance costs may be prohibitive, which in turn may hinder firm compliance.

While any inferences need to be tempered by the fact that our results are drawn from cross-sectional data taken from a small sample of firms in one African market, we are optimistic that we have been able to shed light on these competing views by examining IFRS compliance and its effects in a developing country with limited resources to carry out effective enforcement. We find IFRS compliance to be greater for public than private firms. This finding reflects both the reporting incentives, as well as the ability of public firms, in comparison to private firms, to comply with IFRS. We also find IFRS compliance to be greater among firms with greater foreign ownership. This is indicative of the greater demand for higher-quality reporting by distant investors who are more likely to be subject to higher levels of information asymmetry and have greater demand for a globally harmonized set of standards than their domestic counterparts.

Examining the effects of IFRS, we find evidence consistent with the argument that IFRS compliance improves firm information environment. Principally, we find that IFRS compliance is positively associated with greater stock turnover. This finding adds to the literature, which suggests a muted capital market benefit to mandatory IFRS adoption in countries with weak standard enforcement infrastructure. Rather than a muted effect, we illustrate that IFRS adoption can improve the information environment of firms in low enforcement countries, provided firms have the economic incentive to achieve higher levels of compliance.

REFERENCES

Armstrong, C., M. E. Barth, A. Jagolinzer, and E. J. Riedl. 2010. Market reaction to the adoption of IFRS in Europe. *The Accounting Review* 85: 31–61.

Ashbaugh, H., and M. Pincus. 2001. Domestic accounting standards, international accounting standards, and the predictability of earnings. *Journal of Accounting Research* 39: 417–434.

Bae, K., R. Stultz, and H. Tan. 2008. Do local analysts know more? A cross-country study of the performance of local analysts and foreign analysts. *Journal of Financial Economics* 3: 581–606.

Ball, R. 2006. IFRS: Pros and cons for investors. *Accounting and Business Research* 36 (Special Issue): 5–27.

Ball, R., A. Robin, and J. Wu. 2003. Incentives versus standards: Properties of accounting income in four East Asian countries. *Journal of Accounting and Economics* 36: 235–270.

Ball, R., and L. Shivakumar. 2005. Earnings quality in U.K. private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics* 39: 83–128.

Barth, M. 2008. Global financial reporting: Implications for U.S. academics. *The Accounting Review* 83: 1159–1180.

Barth, M., W. Landsman, and M. Lang. 2007. International Accounting Standards and accounting quality. Available at: http://gsbapps.stanford.edu/researchpapers/library/RP1976.pdf

Barth, M., W. Landsman, M. Lang, and C. Williams. 2009. Are International Accounting Standards-based and U.S. GAAP-based accounting amounts comparable? Available at: http://www.insead.edu/facultyresearch/areas/accounting/events/documents/Barth.Landsman.Lang.Williams.2011.pdf

Baylies, C. 1995. 'Political conditionality' and democratization. *Review of African Political Economy* 22: 321–337.

Bhattacharya, U., H. Daouk, and M. Welker. 2003. The world price of earnings opacity. *The Accounting Review* (July): 641–678.

Botosan, C. 1997. Disclosure level and the cost of equity capital. *The Accounting Review* 72: 323–349.

Bradshaw, M., B. Bushee, and G. Miller. 2004. Accounting choice, home bias, and U.S. investment in non-U.S. firms. *Journal of Accounting Research* 42: 795–841.

Brennan, M., and A. Subrahmanyam. 1995. Investment analysis and price formation in securities markets. *Journal of Financial Economics* 38: 361–381.

Burgstahler, D., L. Hail, and C. Leuz. 2006. The importance of reporting incentives: Earnings management in European private and public firms. *The Accounting Review* 81: 983–1016.

Bushman, R., Q. Chen, E. Engel, and A. Smith. 2004. Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economies* 37: 167–201.

Bushman, R., and A. Smith. 2001. Financial accounting information and corporate governance. *Journal of Accounting and Economics* 32: 237–333.

Cairns, D. 1999. *Applying International Accounting Standards*. 2nd edition. London, U.K.: Butterworth.

Callao, S., J. I. Jarne, and J. A. Lainez. 2007. Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation* 16: 148–178.

Chen, F., O.-K. Hope, Q. Li, and X. Wang. 2010. Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review* 86 (4): 1255–1288.

Chordia, T., R. Roll, and A. Subrahmanyam. 2001. Market liquidity and trading activity. *Journal of Finance* 56: 501–530.

Covrig, V., M. Defond, and M. Hung. 2007. Home bias, foreign mutual fund holdings, and the voluntary adoption of International Accounting Standards. *Journal of Accounting Research* 45: 41–70.

Daske, H., L. Hail, C. Leuz, and R. Verdi. 2008. Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research* 46: 1085–1142.

Debrah, Y., and O. Toroitich. 2005. The making of an African success story: The privatization of Kenyan Airways. *Thunderbird International Business Review* 47: 205–230.

Diamond, D., and R. Verrecchia. 1991. Disclosure, liquidity and the cost of capital. *Journal of Finance* 46: 1325–1359.

Domowitz, I., J. Glen, and A. Madhavan. 1998. International cross-listing and order flow migration: Evidence from an emerging market. *Journal of Finance* 53: 2001–2027.

Easley, D., and M. O'Hara. 2004. Information and the cost of capital. *Journal of Finance* 59: 1553–1583.

Francis, J., R. LaFond, P. Olsson, and K. Schipper. 2004. Costs of equity and earnings attributes. *The Accounting Review* 79: 967–1010.

Ismail, W., K., Dunstan, and T. Van Zijl. 2010. Earnings quality and the adoption of IFRS-based accounting standards: Evidence from an emerging market. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1566634

Lambert, R., C. Leuz, and R. Verrecchia. 2007. Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research* 45: 385–420.

Lang, M., J. S. Ready, and W. Wilson. 2006. Earnings management and cross listing: Are reconciled earnings comparable to U.S. earnings? *Journal of Accounting and Economics* 42: 255–283.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 1997. Legal determinants of external finance. *The Journal of Finance* 52: 1131–1150.

Leuz, C., D. Nanada, and P. Wysocki. 2003. Earnings management and investor protection: An international comparison. *Journal of Financial Economics* 69: 505–527.

Leuz, C., and R. Verrecchia. 2000. The economic consequences of increased disclosure. *Journal of Accounting Research* 38: 91–124.

McGee, R., and G. Preobragenskaya. 2006. *Accounting and Financial System Reform in a Transition Economy: A Case Study of Russia*. New York, NY: Springer.

Pill, H., and M. Pradhan. 1997. Financial liberalization in Africa and Asia. *Finance and Development* 34: 1–8.

Siegel, J. 2009. Is there a better commitment mechanism than cross-listings for emerging-economy firms? Evidence from Mexico. *Journal of International Business Studies* 40: 1171–1191.

Street, D., and S. Gray. 2001. *Observance of International Accounting Standards: Factors Explaining Non-Compliance by Companies Referring to the Use of IAS*. Research monograph. London, U.K.: Association of Chartered Certified Accountants.

Tesar, L., and I. Werner. 1995. Home bias and high turnover. *Journal of International Monetary Finance* 14: 467–492.

United Nations Conference on Trade and Development (UNCTAD). 2006. Review of practical implementation issues of international financial reporting standards: Case study in Kenya. Available at: http://www.unctad.org/en/docs/c2isard33a5_en.pdf

Verrecchia, R. 2001. Essays on disclosure. *Journal of Accounting and Economics* 32: 97–180.

World Economic Forum (WEF). 2006. *Global Competitiveness Report 2006-2007*. Geneva, Switzerland: WEF.

APPENDIX A

FiRe AWARDS MEASURES OF DISCLOSURE QUALITY

Disclosure Quality Measure	Max. Marks	Description
Compliance with IFRS	95	Assesses firm compliance with current IFRS and other technical pronouncements. Fifteen marks are deducted for a major error and five for a minor error. Examples of major errors: Non-disclosure of revenue Lack of note on inventory valuation policies No PPE schedule Examples of minor errors: No adequate disclosure of contingent liabilities Gains recognized directly in equity, not segregated Lack of disclosure on related party transactions
Additional Voluntary Disclosure	10	Assesses a list of 41 possible voluntary disclosures. Firms are awarded two points to a maximum of 10.
Compliance with Companies Act	10	Assesses a firm's compliance with the accounting laws in the Kenyan Companies Act. Two points are deducted for each error.
Clarity of Accounting Policies	10	Assesses whether aspects of the B/S and P&L are disclosed. The adequacy of the disclosures are assessed, as well as whether the disclosures enhance the understanding of the F/S.
Clarity of Notes to F/S	10	Assesses whether the notes are: presented in a systematic manner, adequately cross-referenced, and complete and consistent. Two points are deducted when any measure is not adequate.
Design Layout	5	Assesses design, visual layout, typos, and print in the F/S.
Board and Management Reports	10	Assesses six features of the board and management reports, with one to two points awarded for each feature.
Presentation of Performance Data	10	Assesses the quality of ratio analysis, disclosure of sector and industry information, summaries, and graphical presentations.
Corporate Governance	30	Assesses 18 features of corporate governance, with one to five points awarded for each feature.
Corporate Social Responsibility	10	Assesses a firm's policy statements toward the environment, employee welfare, consumer safety, and code of ethics.

APPENDIX B

NSE FIRM BREAKDOWN BY SECTOR

Banks and Investments	9
Agricultural: Coffee and Tea	7
Cement	3
Gases, Adhesives, Chemicals	3
Agricultural: Food Inputs (Non-Coffee and Tea)	2
Cables and Electrical	2
Insurance	2
Media and Publications	2
Petroleum	2
Tires	2
Vehicles	2
Agricultural: Twine and Fiber	1
Airlines	1
Alcohol	1
Logistics	1
Other	1
Tobacco	1
Tourism	1
Total	43