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Do Accounting Standards Matter for Foreign Direct Investment in Developing Countries?

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ABSTRACT

This study investigates the macroeconomic implications of the adoption of International Financial Reporting Standards (IFRS) in developing countries. The current study specifically examines the relationship between IFRS adoption and Foreign Direct Investment (FDI) inflows to developing countries. A total of 116 developing countries with available data were used for the study analysis. A panel data averaged over three non-overlapping years from the period 1996-2013 for the sampled countries was used for the empirical analysis. The efficient two-step System Generalized Methods of Moment estimation technique with Windmeijer corrected standards errors and orthogonal deviations was employed to examine the empirical relations. Results from the dynamic panel GMM estimation demonstrate that IFRS adoption on its own does not affect the amount of FDI inflows to developing countries. This finding thus suggests that adopting IFRS alone may not be enough for developing countries to attract the much needed FDI inflows. Results from this study therefore calls for the need to further examine the conditions under which developing countries could harness the economic benefits of adopting the IFRS.

Keywords: IFRS, foreign direct investment, macroeconomic implications, institutional quality, developing countries, GMM estimation, economic benefits.

JEL Classification: M41, F63, O43, F21

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INTRODUCTION

A large body of research particularly in the field of economics have over the years examined the key determinants of foreign direct investment inflows (FDI) into countries (Asiedu, 2006; Asiedu, 2002; Chakrabarti, 2001; Busse and Hefeker, 2007; Lay and Wickramanayake, 2007; Onyeiwu, 2004). Variables such as infrastructure development, trade openness, market size, natural resources endowment, degree of capital account openness, inflation and exchange rate have predominantly been cited in most of these existing studies to be associated with FDI flows on a consistent basis (Asiedu, 2006; Asiedu, 2002; Chakrabarti, 2001; Busse and Hefeker, 2007; Lay and Wickramanayake, 2007). Despite the fact that empirical studies on the determinants of FDI flows abounds, literature is still inconclusive on the true determinants of FDI flows. As Gordon *et al.*(2012) surmised, identifying the exact variables that appropriately measure the motives underlying FDI still remain an empirical question. Moreover, existing studies on FDI determinants have largely focused on standard economic variables without considering the role of a country's accounting system particularly the underlying accounting standards for financial reporting. This trend in FDI research in part, has been attributed to the fact that accounting researchers have over the years viewed the implication of accounting issues traditionally at the firm-level. At the same time, the economic and international business researchers who according to Gordon *et al.*(2012) are usually concerned with FDI related research tend to focus more on global and macroeconomic business concerns and less on accounting related issues.

However, following the introduction of International Financial Reporting Standards (IFRS) by the International Accounting Standards Board (IASB) in 2001, studies have emerged seeking to investigate whether the widespread adoption of IFRS has in any way been associated with increased FDI inflows into the adopting countries (Chen *et al.*, 2014; Gordon *et al.*, 2012; Márquez-Ramos, 2011; Zhu, 2014). Relying predominantly on the Ownership-Location-Internalization (OLI) paradigm and the Information Asymmetry theory, these studies argue that, adopting an internationally recognized accounting standards for reporting purposes enhances the locational attractiveness of a country to foreign investors which could impact positively on the amount of FDI inflows to the adopted countries. The argument is that, accounting standards that are internationally recognized such as the IFRS are perceived to be of high quality than most domestic accounting standards (Daske, 2006). Hence, countries that adopt such standards are deemed to be more transparent and capable of providing better accounting information than countries that rely on their own national accounting standards for reporting purposes. As Leuz *et al.* (2010) indicate, foreign investors prefer countries with high financial reporting disclosure requirements and also provide better accounting information.

Again, it has been argued that where the underlying reporting standards and disclosure requirements differ significantly across countries, it increases the overall costs of investing abroad as a foreign investor will have to incur extra cost in processing accounting information prepared under different accounting standards (Ahearne *et al.*, Warnock, 2004; Khurana and Michas, 2011). Thus, differences in national accounting standards and disclosure requirements may constitute an important source of information asymmetry to foreign investors which could have huge implications on the overall cost of doing business in a foreign country. All things being equal, when the cost of investing is relatively high, foreign investors are more

likely to focus on investing in their home countries rather than in foreign countries. This suggests that, using a consistent accounting standards across countries or having uniformity in accounting rules for measurement and disclosure purposes could potentially reduce the cost of doing business abroad and thereby promote FDI inflows to countries than would otherwise be. The European Commission for Internal Market and Services for instance estimates the annual cost of complying with multiple disclosure requirements for European companies listed on stock exchanges in United States to be between \$5 million and \$10 million for each firm . Consequently, the widespread adoption of IFRS by countries is seen as an important phenomenon capable of reducing such costs. As at June 2015, 116 jurisdictions out of a total of 140 jurisdictional profile completed by the IASB, covering 97 per cent of the world GDP, require the use of IFRS for all or most of their listed companies (<http://go.ifrs.org/global-standards>). Together, these countries where IFRS is used cover more than half of the world's GDP . With so many countries already using the IFRS, the expectation is that it should impact positively on the investment prospect (FDI) of the adopted countries. This is because using a single reporting standard across countries enhances comparability of accounting information which has a direct implication on the cost of doing business in a foreign country. While the link between the adoption of IFRS and the amount of FDI inflows to countries has received some empirical support (Chen *et al.*, 2014; Gordon *et al.*, 2012; Louis and Urcan, 2014; Márquez-Ramos, 2011; Zhu, 2014), most of the existing studies have ignored the true dynamics of FDI in their estimation strategies. Although the economics literature conclude that FDI inflows are reinforcing (Agbloyor *et al.* 2013; Asiedu and Lien 2011; Busse and Hefeker 2007), an indication that previous FDI inflows have significant impact on current and future levels, existing studies on IFRS adoption and FDI inflows have largely not considered this important attribute of FDI inflows in their estimations.

This paper therefore makes some contribution to the IFRS and FDI inflows nexus from an empirical methodology perspective by employing the efficient two-step System Generalized Methods of Moment (GMM) panel regression technique. Employing the GMM estimator provides an opportunity to treat FDI inflows as a dynamic variable by including the lag of FDI inflows in the regression model. Including the lagged dependent variable as part of the regressors in the regression model reduces significantly the problem of autocorrelation usually associated with time-series regression analysis (Busse and Hefeker, 2007). Moreover, the use of the GMM estimator also helps in controlling for endogeneity concerns which prior studies have mostly overlooked and hence produces a more efficient estimate than most of the estimation techniques previously employed in the IFRS-FDI discourse. Unlike some existing studies that largely focused on developed countries when examining the IFRS and FDI inflows link, this paper provides some evidence on the IFRS and FDI inflows nexus from developing countries' perspective. This evidence is relevant given that the determinants of FDI inflows to most developing countries have been found to be very different from that of the developed world (Asiedu, 2006). Moreover, developing countries are essentially different from the developed world and there exist wide variations both at country-level and firm-level governance mechanisms (Aggarwal *et al.*, 2005). Most developed economies for instance, are likely to have been following highly sophisticated domestic accounting standards before the adoption of IFRS and thus, on average, the impact of IFRS adoption in developing countries could be more significant compared to developed markets (Gordon *et al.*, 2012; Ismail *et al.*, 2013).

The initial results using the Ordinary Least Square (OLS) panel regression technique confirm the existence of a positive and highly significant relationship between IFRS adoption and FDI inflows to developing countries similar to findings in some existing studies (Gordon *et al.*, 2012 Márquez-Ramos, 2011; Zhu, 2014). The dynamic panel result however suggests IFRS adoption does not affect the amount of FDI inflows to developing countries. The study therefore highlights the need for further research into the conditions under which IFRS adoption can promote FDI inflows to countries.

The rest of the paper is organized as follows. The next section provides the theoretical framework and the empirical evidence on IFRS adoption and FDI inflows followed by the methodology. The subsequent section discusses the empirical results followed by the concluding remarks.

LITERATURE REVIEW

Theoretical Framework

Several overarching theories including the Gravity Model, Hymer's Firm Specific Advantages Theory, Theory of Transaction Cost Economics, Internalization Theory and Dunning's Eclectic Paradigm have been used to explain cross-border investment flows among countries. All of these theories assume that there are market imperfections, which necessitate investment flow among countries. These theories basically associate the inclination of firms to engage in cross-border investment with market imperfection. Dunning (1979) explains that, market imperfections or failures especially in the buying and selling of essential inputs and outputs, propel firms to exploit their foreign markets by internalizing the markets for these inputs and outputs. From the perspective of market imperfection theorists therefore, firms constantly exploit market opportunities and their decision to establish a presence in foreign markets is to capitalize on the advantages they have over firms in the foreign countries (Hymer, 1970).

Theory of Transaction Cost Economics, Internalization Theory and FDI Flows

From the Theory of Transaction Cost Economics (TCE) perspective, costs economization is considered a major goal of every economic organization (Teece, 1986). The relationship between the transaction costs of the firm and the choice of a particular business it engages in is therefore highlighted by proponents of the TCE (Coase, 1937). From the tenets of TCE, the location of production by a firm is largely dependent on differences in production and transaction costs. Accordingly, there is greater motivation to locate a production by multinational enterprises in jurisdictions where the cost of production is relatively low. Thus, central to the TCE is the linkage of costs of the firm to the strategic choice of a business form across borders. On the basis of the TCE, countries where the general cost of doing business is low are considered to be more attractive destinations to FDI inflows than countries with relatively high cost of doing business.

Closely connected with the TCE is the Internalization Theory (IT) which attempts to explain the factors that motivate firms to expand their activities beyond their immediate environment and the choice of entry mode (Buckley and Casson, 1976). The IT provides an important extension to the TCE by highlighting the relative costs and benefits of serving a foreign market internally by a multinational corporation rather than doing it externally. From the perspective of the IT, the decision by a firm to either create an internal market or enter a foreign terrain rests on the existence of some conditions such as transaction costs of engagement (Coase, 1937). By implication, the creation of an internal market by a firm as opposed to entering a foreign market may be dependent on whether it is more efficient for the firm to do so. The IT extends this line of thought by highlighting the motivations behind the decision of a multinational corporation to establish and operate a production facility in a foreign market rather than serving the foreign market through contracting or licensing its products to indigenous firms. The argument is that a firm will prefer the option of expanding its activities through direct investment in a foreign market rather than by means of externalization when it has competitive urge over indigenous firms and greater motivation to protect some specific unique advantages. Thus, IT centres on the notion that a firm will exercise the option of developing its own internal markets when the transaction cost of doing business so is lower.

While both the TCE and the IT emphasize the relevance of costs in explaining the internalization decision of firms, other country-specific factors are believed to be equally important in influencing foreign investment decisions. It is on this basis that in recent times studies have relied largely on the eclectic paradigm to explain FDI decisions.

Dunning's Eclectic Paradigm and FDI Flows

The eclectic paradigm is considered a more comprehensive approach to examining the key determinants of international business activities. Unlike the TCE and IT, the eclectic paradigm uniquely incorporates both country-level and firm-level factors into a single framework to explain cross-border investment decisions (Dunning, 1979). The eclectic paradigm draws upon and integrates three distinctive theories: Ownership specific advantages (O), Location advantages (L) and Internalization (I) advantages (henceforth referred to as OLI) to explain the motivations behind FDI activities. According to Dunning (1979), the decision by firms to serve markets through foreign production rather than externalizing them through licensing and similar contracts with independent firms rests on how they choose to exploit the aforementioned advantages. The OLI paradigm essentially posits that foreign investment is undertaken if ownership-specific advantages exist together with location-specific advantages in host countries, and the potential benefits from internalization of the production process abroad ((Frenkel *et al*, 2004).

From the literature, some of the ownership specific advantages that propel firms to engage in cross-border investment include superior technology, various forms of proprietary knowledge, economies of scale and scope (Forssbäck and Oxelheim, 2008). On the other hand, the avoidance of transaction and negotiating costs, gaining competitive advantage over competitors through controlling the supply of inputs, cost of avoiding or exploiting government interventions constitute some of the reasons why an enterprise will choose to serve foreign

markets, through internalization rather than externalization (Dunning, 1988). Also, investment incentives, tariff barriers and infrastructure development are among some of the common locational advantages that attract foreign investment into a particular country (Dunning, 1988).

Although literature on the different forms of locational advantages exist, Kirkpatrick *et al.*, (2006) point out that the focus of many of the early contributions to this literature have been confined largely to the economic determinants of location choices of FDI inflows, with less emphasis on institutional factors. From the perspective of New Institutional Economics however, differences across countries in economic conditions provide only a limited explanation for the locational choices of foreign investment activities. According to North (1991), quality institutions are essential in maintaining order and reducing uncertainties in exchanges which are critical for foreign investment decisions. The role of institutional factors on foreign investment inflows has consequently been recognized as crucial in emerging studies (Campos and Kinoshita, 2008; Kirkpatrick *et al.*, 2006). Dunning (2006), in particular emphasizes the need to consider the role of institutional infrastructure of a location as central to any study of the determinants of international business activities. Since the accounting system of a country particularly the underlying financial reporting standards constitutes an important component of the institutional infrastructure of a country, its relevance on FDI activities cannot be underestimated. As Chen *et al.* (2014) point out, the type of accounting standards applicable in a country can affect its attractiveness to FDI inflows. Accordingly, their study concludes that countries that adopt internationally recognized accounting standards (IFRS) experience better FDI inflows than non-adopters.

The core argument is that the adoption of IFRS should reduce the informational disadvantages foreign investors face when investing abroad significantly. As the world's dominant set of accounting standards, its adoption is expected to enhance comparability in financial reporting and reduce information asymmetry between home-country and foreign users of financial statement information. Therefore, similar to the frameworks of Chen *et al.* (2014) and Gordon *et al.* (2012), this study considers the accounting system of a country particularly the underlying standards of reporting to be an important component of a country's institutional infrastructure which is critical in enhancing its locational attractiveness to foreign investment inflows. The paper argues that the type of accounting standards applicable in a country may affect its locational attractiveness to FDI inflows and consequently hypothesizes that the adoption of IFRS by a country will positively influence the amount of FDI inflows to that country.

The Economic Benefits of IFRS Adoption

The primary benefit of adopting a single set of international accounting standards is well established in the accounting literature. Proponents of worldwide adoption of IFRS argue that, using a single set of accounting standards provides a unique opportunity of achieving uniformity in reporting practice which can enhance comparability of financial information across countries (Ames, 2013; Horton *et al.*, 2013). While prior studies associate the adoption of IFRS with a number of firm-level benefits to adopted countries, it has been argued that the adoption of the IFRS across countries would facilitate cross-border investment flows (Bova and Pereira,

2012; Tweedie and Seidenstein, 2005). The cross-border investment benefits are anchored in the fact that, collective adoption of IFRS by countries increase the comparability of financial information, reduce agency problems emanating from information asymmetry with outside capital providers and ultimately, encourage investments in foreign markets.

As Ahearne *et al.*, (2004) point out, cross-country differences in accounting standards, disclosure requirements, and regulatory environments lead to information costs that must be borne by foreign investors. For instance, differences in national accounting standards will mean Multinational Corporations (MNCs) will have to prepare multiple financial statements to suit the regulations of each country they operate and this may have direct cost implications on their activities (Ali, 2005). Using one reporting standard globally will reduce the cost of preparing worldwide consolidated financial statements by MNCs and also make it easier for MNCs and international accounting firms to transfer accounting personnel to other countries. As indicated earlier in the introduction section, the cost of complying with multiple reporting requirements by MNCs has been reported to be very high. Again, using a uniform reporting standard eliminates many of the adjustments analysts would have to make in order to compare financial statements of companies across countries, thereby reducing the cost of processing accounting information (Ball, 2006). This in part explains why the accounting system of a country particularly the applicable standards of reporting is believed to be a key determinant of the locational choices of foreign investors (Márquez-Ramos, 2011).

In general, the accounting system helps firms to communicate information to investors. While the overall objective of financial reporting is to provide useful information for investment decisions (IASB, 2001), it remains the responsibility of an investor interested in investing in a foreign market to learn to appreciate the accounting standards that are used in the foreign country. The provision of an accounting information based on a more familiar accounting standard to an investor may be useful in minimizing the difficulties involved in processing accounting information in a foreign market. French and Poterba (1991) suggest that such “familiarity effects” shape foreign investment decisions and argue that investors may invest less in foreign markets when they know less about these markets. By implications, investors would find financial statements more beneficial in their investment decision-making if such reports apply consistent accounting standards and are comparable. In line with the above arguments, Ochi (2014), asserts that using a common reporting standard globally would deepen investors’ understanding of financial information across different countries thereby promoting cross-border flows of capital. Hence, the widespread adoption of IFRS by countries is expected to help reduce diversities in reporting practices across countries, enhance meaningful cross-country comparisons of financial statements, reduce information asymmetry and barriers to international capital flows and ultimately promotes FDI inflows to countries.

Empirical Literature on IFRS Adoption and FDI Flows

From empirical perspective, the association between IFRS adoption and cross-border investment flows in general and FDI inflows in particular has received some support though only a limited number of studies have investigated IFRS and FDI nexus. Thus, despite the theoretical justifications in the literature, very few studies to date have specifically examined

the effect of IFRS adoption on cross-border investment activities (Amiram, 2012; Beneish *et al.*, 2015; Chen *et al.*, 2014; Gordon *et al.*, 2012; Louis and Urcan, 2014; Márquez-Ramos, 2011; Zhu, 2014). In part, Gordon *et al.* (2012) attribute the seemingly lack of empirical studies in this area to the fact that accounting researchers usually concentrate on the firm-level implications of IFRS adoption neglecting its macroeconomic implications. Notwithstanding this, the few studies in existence demonstrate that IFRS adoption has important implications on FDI activities. Using the gravity model, Márquez-Ramos (2011) assessed IFRS adoption as a driver of FDI and found support for an increase in FDI flows among countries that have adopted IFRS. Similarly, Chen *et al.*, (2014) examined the impact of IFRS adoption on FDI by considering IFRS as a component of the institutional infrastructure of a location. By employing the gravity model in examining the empirical relations, their findings also indicate that FDI flows are positively associated with conformity to IFRS.

Unlike these two studies that considered the pair-wise (i.e., bilateral) cross-border flows of FDI between two countries, Gordon *et al.* (2012) looked at the impact of IFRS adoption on total FDI inflows received by each country from all other countries. Relying predominantly on Dunning's Eclectic Paradigm, findings of their study also support the argument that countries that adopt IFRS experience better FDI inflows than non-adopters. In particular, their results based on the Difference-in difference (DID) test demonstrate that the positive impact of IFRS on FDI inflows is much stronger in developing countries than the developed world. Zhu (2014) examined the impact of IFRS adoption on cross-border Mergers and Acquisitions (M&As) and conclude that a reduction in accounting standards disparity from the adoption of IFRS promotes bilateral M&A. Thus, notwithstanding the fact that studies on the association between IFRS adoption and foreign investment flows are still in the evolution stage, the few existing studies generally suggest that countries that adopt IFRS benefit more from FDI inflows than non-adopting countries. This study therefore hypothesizes that:

H1: The adoption of IFRS will impact positively on the amount of FDI inflows to developing countries.

DATA AND METHODOLOGY

This study investigates the effect of IFRS adoption on FDI inflows of all countries classified as developing economies, based on the United Nations (UN) Statistics Division classification. A total of 141 countries across the continents of Africa, Asia, North America, South America and Oceania constituted the sample size for the study. However, 116 countries were included in the final analysis purely due to data availability. The list of countries used in the analysis are presented in the "Appendix A". A panel data of the sampled countries covering the period 1996 to 2013, was employed to analyse the study's objectives. The year 1996 was chosen as the base period for the study because that is the year that data on institutional quality measures for the study became available. Also, the year 2013 was chosen as the cut off point for data collection since at the time of the study, the most recent data for most of the study variables were available up to that year. In investigating the relationship between IFRS adoption and FDI inflows, variables that have been documented predominantly by existing studies (Busse

and Hefeker, 2007) to have significant association with FDI inflows on a persistent basis were included in the analysis as control variables. These variables as described in Table 1 include institutions, market size measured as GDP per capita, openness to trade, level of infrastructure development, natural resources endowment, level of financial openness, macroeconomic policy inadequacies proxied by inflation. Table 1 provides a summary of the variables used in the empirical analysis of the study, their measurement and sources of data.

Table 1 Variable description, measurement and source of data

Variable name	Measurement	Source
Net foreign direct investment inflows (FDI)	Natural logarithm of net inflows of foreign direct investment scaled by GDP	World Development Indicator (WDI) database published by World Bank
IFRS adoption (IFRSDUMMY)	Dummy variable equal to 1, if a country has adopted IFRS; 0, otherwise. "Adopt" means mandatory adoption of IFRS by a country.	IAS Plus, http://www.iasplus.com/country/useias.htm , IASB, http://go.ifrs.org/global-standards http://go.ifrs.org/global-standards
Institutional Indicators		
Control of corruption (CORRUPT)	Represents control of corruption measured on a scale of -2.5 to 2.5 with higher values denoting better institutions	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Government effectiveness (GOVT)	Reflects the quality of public services, civil service and the degree of independence from political pressures. Measured on a scale of -2.5 to 2.5 with higher values denoting better governance	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Political stability (PSTAB)	Captures the likelihood political instability or politically motivated violence and is measured on a scale of -2.5 to 2.5 with higher values denoting a more stable environment.	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Regulatory quality (REGQUA)	Explains government ability to formulate and implement sound policies and regulations. Measured on a scale of -2.5 to 2.5 with higher values denoting quality in regulations.	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Rule of law (RULELAW)	Captures the extent to which agents have confidence in and abide by the rules of society. Measured on a scale of -2.5 to 2.5 with higher values denoting better rule of law	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)

Table 1. (Cont.)

Voice and accountability (VOICE)	Captures the extent of citizens' participation in selecting governments, freedom of expression, association and a free media. Measured on a scale of -2.5 to 2.5 with higher values denoting a better measure.	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Institutional quality (INSTQUA)	Represent the simple average of the Kaufmann et al. (2010) six dimensions of worldwide governance indicators	The Worldwide Governance Indicator database 2010 prepared by Daniel Kaufmann, World Bank Economics Research Group. (Kaufmann et al., 2010)
Trade openness (TRADEOPEN)	Absolute value of exports plus imports as percentage of GDP	World Development Indicator (WDI) database published by World Bank
Natural resources (NATURES)	Represents total natural resources rent measured as the sum of oil rents, natural gas rents, coal rents, mineral rents, and forest rents as a percentage of GDP	World Development Indicator (WDI) database published by World Bank
Infrastructure development (INFRAS)	Represent level of infrastructure development measured as the number of mobile cellular subscriptions per 100 people	World Development Indicator (WDI) database published by World Bank
Financial openness (KOPEN)	Measure of a country's degree of capital account openness. The index ranges from -1.83 to +2.5. The higher the value the more open a country is to cross-border capital transactions	Chinn and Ito's (2008)
GDP per capita (GDPPC)	Natural logarithm of gross domestic product per capita in constant US dollars as a percentage of population	World Development Indicator (WDI) database published by World Bank
INFLATION	Represent the rate of price change in the economy as whole measured by the annual growth rate of the GDP implicit deflator	World Development Indicator (WDI) database published by World Bank

To estimate the regression model, this paper first employs the traditional static estimation technique using the OLS panel regression approach as a benchmark analysis since prior related accounting studies have mostly employed the static estimation techniques in their analysis. Chen *et al.* (2014), Gordon *et al.* (2012), Louis and Urca (2014), Márquez-Ramos (2011) and Zhu (2014) all employed the static estimation techniques in their study. Similar to Gordon *et al.* (2012), the empirical model to be employed in analyzing the effect of IFRS adoption on FDI inflows is given below:

$$FDI_{it} = \alpha + \beta_1 IFRSdummy_{it} + \beta_2 CORRUPT_{it} + \beta_3 GOVT_{it} + \beta_4 PSTAB_{it} + \beta_5 REGQUA_{it} + \beta_6 RULELAW_{it} + \beta_7 VOICE_{it} + \beta_8 TRADEOPEN_{it} + \beta_9 NATURES_{it} + \beta_{10} INFRAS_{it} + \beta_{11} KOPEN_{it} + \beta_{12} GDPPC_{it} + \beta_{13} INFLATION_{it} + \varepsilon_{it} \quad 1$$

The six measures of good institutions (each measured on a scale of -2.5 to 2.5) however, have been found to be highly correlated with each other (Agbloyor *et al.* 2016) and therefore to mitigate the impact of the correlation among these variables on the estimated results, a new variable ‘INSTQUA’ representing the composite measure of the six indicators of institutions was computed. Similar to prior studies (Agbloyor *et al.* 2016; Kose, Prasad and Taylor, 2011), the composite measure was obtained by computing the simple average of the six indicators. Using the composite score a new regression model is estimated as follows:

$$FDI_{it} = \alpha + \beta_1 IFRSdummy_{it} + \beta_2 INSTQUA_{it} + \beta_3 TRADEOPEN_{it} + \beta_4 NATURES_{it} + \beta_5 INFRAS_{it} + \beta_6 KOPEN_{it} + \beta_7 GDPPC_{it} + \beta_8 INFLATION_{it} + \varepsilon_{it} \quad 2$$

By relying on the empirical specification as shown in equations 1 and 2, we assumed that both the adoption dummy and the other variables included as controls in the regression are exogenous and hence, no attempt is made to address concerns related to endogeneity in our model. This assumption, however, appears unrealistic given that some of the variables such as openness to trade are theoretically endogenous in nature (Busse and Hefeker 2007). Moreover, for most developing countries, the decision to adopt IFRS is usually an attempt to signal to the international community about the transparency and quality reporting practice with the aim of attracting funding (Gordon *et al.*, 2012; Lamoreaux *et al.*, 2015). This suggests the likelihood of endogeneity between IFRS adoption and FDI inflows which must be controlled for. Again, Gordon *et al.*, (2012) argue that, when examining the economic consequences of IFRS adoption, endogeneity may also result from changes due to other regulatory reforms that could have occurred around the time of IFRS adoption. Again, the specification in both equations also fail to account for the true nature of FDI inflows. Prior studies consider FDI to be reinforcing (Agbloyor *et al.* 2013; Asiedu and Lien 2011; Busse and Hefeker 2007), an indication that previous FDI inflows have important implications for current and future levels. To control explicitly for all possible endogeneity concerns which prior studies have mostly ignored and also account for the misspecified dynamics of FDI inherent in our models in equation 1 and 2, we employ the dynamic panel econometric approach to further analyze the relationship. Following prior studies on the determinants of FDI inflows (Asiedu, 2013; Asiedu and Lien, 2011; Busse and Hefeker, 2007; Lucke and Eichler, 2016), a linear dynamic panel data model, which captures the effect of lagged FDI inflow, is estimated as follows;

$$FDI_{it} = \alpha + \beta_1 FDI_{(it-1)} + \beta_2 IFRSdummy_{it} + \beta_3 INSTQUA_{it} + \beta_4 TRADEOPEN_{it} + \beta_5 NATURES_{it} + \beta_6 INFRAS_{it} + \beta_7 KOPEN_{it} + \beta_8 GDPPC_{it} + \beta_9 INFLATION_{it} + \varepsilon_{it} \quad 3$$

To estimate the regression model specified in equation 3, we employ the efficient two-step System Generalized Methods of Moment (GMM) panel regression technique. Our choice of the dynamic panel GMM estimators is motivated by two reasons. First, while Gordon *et al.*, (2012) employ the instrumental variable (IV) technique to deal with endogeneity concerns in their study, finding good instruments that correlate with only the exogenous variables and not the error term has been acknowledged to be very difficult in practice (Butkiewicz and Yanikkaya

2006). Using the GMM estimator helps in overcoming the difficulty of getting appropriate instruments inherent in the IV approach. The GMM approach assumes the only available instruments are “internal” and thus, strictly relies on the set of ‘internal’ instruments contained within the panel itself and not outside the immediate data set (Roodman 2006; Wintoki *et al.* 2012). Second, the use of the dynamic panel GMM estimator allows for the treatment of FDI as a dynamic variable in line with theory by including their lags as regressors in our model. According to Roodman (2006), the GMM estimators are designed for panel analysis in which current realization of the dependent variable is influenced by past ones. By implication, the GMM estimator is most suitable for estimations in which the underlying economic process itself is dynamic. Subsequently, the data was transformed from the 18 year annual observations to three non-overlapping years, from 1996 to 2013 given a six time period data (1996-1998; 1999-2001; 2002-2004; 2005-2007; 2008-2010; 2011-2013) for the GMM analysis. The data was transformed to reduce volatility inherent in yearly dataset, smoothing the impact of strong cyclical factors potentially present in the yearly data (Ali *et al.*, 2010; Law and Habibullah, 2009) and also accommodate the short term nature of the GMM estimator.

RESULTS AND DISCUSSIONS

Before proceeding with the regression analysis, the characteristic of the dataset was explored by means of descriptive and correlation analysis. Results of the descriptive and correlation analysis are presented in Tables 2 and 3 respectively. As shown in Table 2, total net FDI inflows to developing countries averaged approximately 5% of GDP over the study period, while the average GDP per capita was approximately \$4,700. Each of the six indicators of institutional quality also varies in minimum and maximum values. The indicator ‘Control of corruption’ recorded the highest score with a value of 2.3 while ‘Political stability’ recorded the lowest score among the six indicators with a value of -2.5. There were significant variations in minimum and maximum values of most of the variables. Among all the variables Financial Openness (KAOPEN) recorded the highest measure of variation (COV = 7503) and this was distantly followed by inflation with an associated coefficient of variation of 4.10. Openness to trade (TRADEOPEN) recorded the lowest level of variation (COV = 0.23) distantly followed by the “Level of Infrastructure and natural resources respectively.

Further, to ascertain whether the independent variables were highly correlated with each other so as to establish whether or not multicollinearity was an issue in the dataset, correlation analysis were conducted using the key variables employed in the analysis. The results of the pairwise correlation matrix for the variables used in analysing the effect of IFRS adoption on FDI as presented in Table 3 indicate that, generally multicollinearity is not a major issue. This is because the extent of correlation among the independent variables as shown in Table 3 is very low. However, the six measures of institutions expectedly, exhibit a high pairwise correlation with each other justifying the appropriateness of using the composite measure in our estimations.

Table 2 Descriptive statistics of variables

Variable	Observations	Mean	Std. Dev.	Min	Max	Coefficient of variation
FDI	703	4.78	6.46	-3.72	82.68	1.35
TRADEOPEN	645	0.63	0.15	0.13	0.93	0.23
GDPPC	706	4674.82	8445.33	112.73	93200.10	1.81
KAOPEN	708	0.00	1.50	-1.89	2.39	7503.50
INSTQUA	706	-0.37	0.69	-2.12	1.54	1.88
VOICE	708	-0.40	0.80	-2.17	1.44	1.98
PSTAB	706	-0.36	0.89	-2.51	1.28	2.46
GOVT	708	-0.35	0.75	-1.96	2.32	2.15
REGQUA	708	-0.33	0.77	-2.23	2.23	2.36
RULELAW	708	-0.40	0.76	-2.17	1.75	1.90
CORRUPT	708	-0.35	0.74	-1.98	2.35	2.12
INFLATION	701	10.72	44.03	-14.63	1048.36	4.11
NATURES	691	13.57	16.33	0.00	85.32	1.20
INFRAS	708	38.62	44.38	0.00	227.37	1.15
IFRSDUMMY	708	0.23	0.42	0.00	1.00	1.84

Note: FDI represents Net inflows of foreign direct investment scaled by GDP, TRADEOPEN represents openness to trade, GDPPC represents GDP per capita, KAOPEN represents capital account openness, INSTQUA represents institutional quality, VOICE represents voice and accountability, PSTAB represents political stability, GOVT represents government effectiveness, REGQUA represents regulatory quality, RULELAW represents rule of law, CORRUPT represents control of corruption, NATURES represent natural resource endowment, INFRAS represents level of infrastructure development. IFRSDUMMY is a dummy variable that represents the adoption of IFRS by a country.

Empirical Analysis

The empirical analysis of this study begins with results from the static econometric specifications using the OLS estimation technique followed by the dynamic panel estimations using the System GMM estimator. Table 4 presents results on the relationship between IFRS adoption and FDI inflows using both the OLS and GMM estimators. Models 1 and 2 contain results from the OLS estimation whilst Model 3 presents the GMM results. Model 1 presents results from using all the six indicators of institutional quality in the regression model. However, since the six indicators of institutional quality exhibit high pairwise correlation with each other, an aggregate measure of institutional quality is used to control for the effect of multicollinearity on the estimated results. In Model 2 results based on the aggregate institutional quality measure are presented.

The results from Model 1 indicate a positive and highly significant relationship between IFRS adoption and the amount of FDI inflows to countries (significant at less than the 1% level). This finding in line with our prediction demonstrates that countries that adopt IFRS for reporting purposes benefit more from FDI inflows than non-adopting countries. Thus, consistent with prior empirical studies (Chen *et al.*, 2014; Gordon *et al.*, 2012; Zhu, 2014), our benchmark results associate IFRS adoption with growth in FDI inflows. By implication, the type of accounting standards applicable in a country can play a key role in promoting the

Table 3 Correlation Matrix of variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.00														
2	0.1946*	1.00													
3	0.2328*	0.2360*	1.00												
4	0.1994*	0.4014*	0.3539*	1.00											
5	0.2739*	0.2015*	0.6818*	0.3213*	1.00										
6	0.1907*	0.1524*	0.4266*	0.2348*	0.7962*	1.00									
7	0.2893*	0.0891*	0.5280*	0.1690*	0.7751*	0.5391*	1.00								
8	0.2217*	0.1972*	0.7008*	0.3206*	0.9299*	0.6526*	0.5916*	1.00							
9	0.2781*	0.3033*	0.6365*	0.4462*	0.8891*	0.6756*	0.5215*	0.8845*	1.00						
10	0.2248*	0.1634*	0.6589*	0.2710*	0.9520*	0.6786*	0.7144*	0.9008*	0.8207*	1.00					
11	0.2159*	0.1614*	0.6426*	0.2591*	0.9212*	0.6312*	0.6489*	0.8908*	0.7963*	0.8993*	1.00				
12	-0.0787*	-0.0577	-0.1127*	-0.0618	-0.1836*	-0.1483*	-0.1586*	-0.1633*	-0.1880*	-0.1668*	-0.1370*	1.00			
13	-0.0147	-0.0127	0.0667	-0.0770*	-0.3607*	-0.4618*	-0.1642*	-0.3195*	-0.3577*	-0.2979*	-0.2947*	0.0764*	1.00		
14	0.3264*	0.4693*	0.4926*	0.2571*	0.3145*	0.2178*	0.2158*	0.3309*	0.3127*	0.2965*	0.2794*	-0.1599*	0.0451	1.00	
15	0.0701	0.2337*	0.1224*	0.1186*	0.1292*	0.1155*	0.1055*	0.1075*	0.1293*	0.1231*	0.0940*	-0.0303	0.1179*	0.2779*	1.00

Note: * represents significance at 5%. 1 represents FDI, 2 represents TRADEOPEN (openness to trade), 3 represents GDPPC (GDP per capita), 4 represents K AOPEN (capital account openness), 5 represents INSTAQUA (institutional quality), 6 represents VOICE (voice and accountability), 7 represents PSTAB (political stability), 8 represents GOVT (government effectiveness) 9 represents REGQUA (regulatory quality), 10 represents RULELAW (rule of law), 11 represents CORRUPT (control of corruption), 12 represents INFLATION 13. Represents NATURES (natural resource endowment), 14 represents INFRAS (level of infrastructure development), 15 represents IFRSDUMMY.

overall FDI inflows to that country. Countries that adopt accounting standards with international appeal, like IFRS, tend to be more attractive destinations for FDI inflows than countries that depend on their own local accounting standards for financial reporting purposes. This is because, from the perspective of Information Asymmetry theory, the adoption of IFRS is capable of reducing the information friction faced by investors in foreign markets (Beneish *et al.*, 2015). The reduction in information friction that confronts foreign investors reduces the overall cost of investing abroad, which increases the attractiveness of adopting countries to FDI inflows than would otherwise be the case (Gordon *et al.*, 2012). Within the OLI paradigm, the institutional infrastructure of a country is considered a key component of the factors that affect its locational attractiveness to foreign investors. Therefore, the OLI paradigm will predict that countries with good institutions are usually more preferred destinations for foreign investors than those with poor institutions. Therefore to the extent that IFRS adoption improves the quality and transparency of financial reporting in a country, it enhances its potential of attracting foreign investors to the country.

Analysis of results from the control variables also indicates our model is correctly specified. As shown in Table 4, the control variables are related to FDI inflows in a way largely consistent with existing studies. The results show that trade openness, GDP growth, natural resource endowment, inflation and the degree of openness in capital account transactions are all significant and positively associated with FDI inflows in line with prior studies (Busse and Hefeker 2007; Mina 2007; Asiedu 2002; Asiedu 2006). The only exception was the level of infrastructure development which we find to be negatively related to FDI, contrary to existing studies.

Table 4 Results from OLS and GMM estimations

VARIABLES	Model 1	Model 2	Model 3
Lag of log FDI			0.445*** (0.0850)
IFRSDUMMY	0.302*** (0.0701)	0.272*** (0.0704)	-0.100 (0.156)
TRADEOPEN	0.0804*** (0.0200)	0.0493*** (0.0170)	0.0329 (0.372)
Log GDPPC	0.0635* (0.0349)	-0.0132 (0.0289)	-0.240* (0.135)
KAOPEN	0.0589*** (0.0190)	0.0377** (0.0179)	-0.0103 (0.0439)
INFLATION	0.00329*** (0.000329)	0.00341*** (0.000332)	0.132 (0.551)
NATURES	0.0171*** (0.00191)	0.0194*** (0.00185)	0.0119** (0.00519)
INFRAS	-0.00417*** (0.000727)	-0.00398*** (0.000733)	0.0947** (0.0465)

Table 4 (Cont.)

VOICE	0.0160		
	(0.0496)		
PSTAB	0.0471		
	(0.0436)		
GOVT	-0.0432		
	(0.114)		
REGQUA	-0.290***		
	(0.0809)		
RULELAW	-0.173		
	(0.105)		
CORRUPT	0.119		
	(0.0899)		
INSTQUA		-0.163***	0.935***
		(0.0534)	(0.239)
Constant	-0.175	0.901***	2.328**
	(0.431)	(0.344)	(0.941)
Observations	1,258	1,262	528
R-squared	0.262	0.242	
Adjusted R-squared	0.254	0.237	
Number of groups			116
Number of instruments			70
F			18.19
Prob > F			0.000
AR(1): z (p value)			-3.29
			(0.001)
AR(2): z (p value)			-1.35
			(0.178)
Hansen: χ^2 (p value)			68.55
			(0.210)

Note: Standard errors are in parentheses. ***, **, * represents significance at $p < 0.01$, $p < 0.05$, $p < 0.1$ respectively. IFRSDUMMY is a dummy variable that represents the adoption of IFRS by a country. TRADEOPEN represents openness to trade. GDPPC represents log of GDP per capita. KAOPEN represents capital account openness. NATURES represent natural resource endowment. INFRAS represents level of infrastructure development. VOICE represents voice and accountability. PSTAB represents political stability. GOVT represents government effectiveness. REGQUA represents regulatory quality. RULELAW represents rule of law. CORRUPT represents control of corruption. INSTAQUA represents institutional quality

We observe similar results when we repeat the analysis using the aggregate of the six institutional quality indicators as presented in Model 2. The coefficient estimate of the IFRS variable in Model 2 is again positive and significant at 1% significant level, suggesting that countries that adopt IFRS experience better FDI inflows than non-adopting countries. The results also indicate most of the control variables are appropriately signed and are largely consistent with prior studies except that contrary to our expectations we find the aggregate institutional quality measure to be negatively related with FDI inflows. Taken together, our

benchmark results support the predicted hypothesis of a positive association between the adoption of IFRS and the amount of FDI inflows to a country. The above results as indicated earlier in the methodology section are not without limitations. Employing the OLS estimation technique do not only fail to account for the possibility of previous FDI inflows influencing current and future FDI inflows, but also ignores concerns related to endogeneity in our model. To control explicitly for all possible endogeneity concerns and also account for the misspecified dynamics of FDI inherent in our OLS results, we employ the dynamic panel GMM estimators to further analyze the relationship.

Model 3 shows the results of the dynamic panel estimations using the System GMM estimator. The dynamic panel estimation produces some interesting outcomes. In line with our expectation, the lag of FDI from the result is positive and highly significant at 1% level. This suggest that FDI inflows are indeed reinforcing and that investment patterns in the past have important implications for current and future investment levels. The various specification tests as reported in Table 5 indicate that the estimated model is properly specified. Checks for consistency of the estimates for the regression results using the Hansen test of over-identifying restrictions and the Arellano and Bond test for second-order serial correlation in the error term produced very satisfactory outcome As shown in Table 4, the results of the Hansen test for over-identifying restrictions support the null hypothesis. This means that the instruments used in the estimations are valid and there is no correlation between the instruments and the error term. The results for the Arellano–Bond test for autocorrelation also confirm the absence of second order serial correlation in the regression model, and the number of instruments did not exceed the number groups. Lastly, the ‘F’ test results for the estimated model also yielded significant results.

Unlike the OLS results however, the dynamic panel result shows an insignificant relationship between the IFRS variable and FDI inflows and most surprisingly with a negative coefficient. This finding suggests that IFRS adoption does not affect FDI inflows to countries and contrary to existing empirical studies, it could even be detrimental to the investment prospects of adopted countries. Thus, contrary to the OLS results and findings in existing empirical studies that associate IFRS adoption with improvement in FDI inflows to countries (Chen *et al.*, 2014; Gordon *et al.*, 2012; Louis and Urcan, 2014; Márquez-Ramos, 2011; Zhu, 2014), our dynamic panel results demonstrate that, IFRS adoption on its own does not affect the amount of FDI inflows to countries.

Analysis of results for the control variables generally suggests that the findings are consistent with theory and empirical literature. As shown in Model 3 of Table 4, trade openness and natural resource endowment are significant and positively related with FDI inflows. This is an indication that, countries with opened economies that are blessed with abundant natural resources are more attractive destinations to FDI inflows (Ali *et al.*, 2010; Asiedu, 2006; Buchanan *et al.*, 2012; Lucke and Eichler, 2016; Mina, 2007). The degree of openness in capital account transactions and the level of infrastructure development are also positively related to FDI inflows, although not statistically significant. GDP per capita was also significant but negatively related to FDI inflows in the estimated model, an indication that higher economic growth could deter FDI. Although prior studies demonstrate that high growing economies provide relatively better opportunities to foreign investors in terms of market size and favourable

macroeconomic policies than slow-growing or stagnant economies (Chakrabarti 2001; Onyeiwu 2004; Morisset 2000), Buchanan *et al.* (2012) opine that the general cost of doing business in high growing economies is also relatively high which may discourage foreign investors. Typically as an economy expands, the standard of living also rises, leading to high labor cost and high cost of capital, which ultimately increase the cost of production. Economies with high costs of production are often less attractive to foreign investors. Instructively, the institutional quality indicator is positive and has a strong association with FDI inflows at 0.01 significance level. This emphasizes the crucial role that quality institutions play in a country's investment attraction drive. The positive association between institutional quality and FDI inflows is consistent with findings from many empirical studies that generally support the fact that quality institutions matter for FDI inflows to host countries (Daude and Stein 2007; Mina 2007; Busse and Hefeker 2007; Shah *et al.* 2016; Lucke and Eichler 2016; Buchanan *et al.* 2012).

CONCLUSION

Although the economic benefits of adopting the IFRS for reporting purposes have received significant research attention, empirical studies on the association between IFRS adoption and cross-border investment flows are very limited. This study provides some new insight on the IFRS and FDI inflows-nexus from developing countries perspective. Unlike the existing studies that largely employ the traditional static panel estimation techniques to examine the IFRS adoption and FDI inflows nexus, this study adopts a dynamic panel estimation approach using the System GMM estimator to explicitly account for the dynamic nature of FDI while addressing endogeneity concerns which most studies have overlooked. Findings from our dynamic panel analysis suggest that adopting IFRS alone within the context of developing countries may not be enough to attract FDI inflows to countries contrary to our predictions.

While results of this study contradict findings in some existing studies, it also calls for the need to revisit the IFRS and FDI debate. As demonstrated by results of this study, the type of estimation technique employed by a researcher in investigating the relationship between IFRS adoption and FDI inflows has important implications on the findings. Whereas results based on static estimation strategies associate IFRS adoption with better FDI inflows to countries, findings based on the dynamic panel estimation strategy suggest otherwise. Therefore, the study concludes that the type of interpretations and conclusions drawn from the existing studies should be done with some precautions.

The results of this study have important implications for policy makers and academic researchers. From a policy perspective, the results are indicative of the fact that adopting IFRS alone may not be enough to attract FDI inflows to a country and that the expected economic benefits of IFRS adoption may be dependent on other factors. Developing countries that have adopted IFRS as well as those planning to adopt should therefore consider exploring the necessary conditions under which a country may derive the economic benefits from the adoption decision. In this regard, an important extension to the IFRS adoption and FDI inflows discourse will be to examine the conditions under which the adoption of IFRS by a country could promote FDI inflows. Given that the quality of institutions as shown in the dynamic

panel results has a strong positive association with FDI inflows, it will be interesting to find out whether in the presence of good institutions IFRS adoption could promote FDI inflows. Thus, future studies could explore the interaction effects of IFRS adoption and the quality of institutions in a country on FDI inflows. Exploring this interaction effects is relevant given that prior studies acknowledge the existence of inter-dependencies between the accounting system of a country and other institutions. From the academic perspective, findings of this study also emphasize the need for academic researchers to critically consider the choice of estimation technique in examining IFRS consequences and the associated conclusions thereof. As clearly established by this study, the type of estimation technique adopted when examining IFRS adoption consequences has a significant impact on the estimated results. Hence, care must be taken with the kind of interpretation and conclusions drawn from IFRS empirical research.

Notwithstanding the contributions this study make to the accounting and economics literature, the findings are not without limitations. First, the study did not consider the impact of the degree of adoption of IFRS by a country on the estimated results. A country may adopt the IFRS fully by abandoning its own domestic standards completely or may adopt the IFRS with some form of modifications to meet its peculiar context. This study however, did not consider the differences in adoption status across countries on the estimated results. A second limitation also relates to the empirical difficulty in completely isolating the effect of omitted variables on the estimated results. While an attempt was made to control for variables previously established to have an impact on the dependent variable of the study, the study cannot completely rule out the potential influences of other omitted variables on the estimated results. Due to the above limitations and also based on the fact that country-level studies are usually not without shortcomings, the results of this study should be interpreted with caution.

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APPENDIX A

#	Country	Adoption status as at 2013		Year
		YES	NO	
1	Algeria	√		2010
2	Argentina	√		2011
3	Armenia	√		2011
4	Azerbaijan	√		2010
5	Bahamas, The	√		2013
6	Bahrain	√		2001
7	Bangladesh		√	
8	Barbados	√		2011
9	Belize		√	
10	Benin		√	
11	Bhutan		√	
12	Bolivia		√	
13	Botswana	√		2003
14	Brazil	√		2010
15	Burkina Faso		√	
16	Burundi		√	
17	Cabo Verde		√	
18	Cambodia	√		2012
19	Cameroon		√	
20	Central African Republic		√	
21	Chad		√	
22	Chile	√		2009
23	China		√	
24	Colombia		√	
25	Comoros		√	
26	Congo, Dem. Rep.		√	
27	Congo, Rep.		√	
28	Costa Rica	√		2001
29	Cote d'Ivoire		√	
30	Djibouti		√	
31	Dominica		√	
32	Dominican Republic	√		2013
33	Ecuador	√		2008
34	Egypt, Arab Rep.		√	
35	El Salvador	√		2011
36	Equatorial Guinea		√	
37	Eritrea		√	

38	Ethiopia		√	
39	Fiji	√		2007
40	Gabon		√	
41	Gambia, The		√	
42	Ghana	√		2007
43	Guatemala	√		
44	Guinea		√	
45	Guinea-Bissau		√	
46	Guyana		√	
47	Haiti		√	
48	Hong Kong SAR, China		√	
49	India		√	
50	Indonesia		√	
51	Iran, Islamic Rep.		√	
52	Iraq		√	
53	Israel	√		2011
54	Jamaica	√		2011
55	Jordan	√		2006
56	Kazakhstan	√		2013
57	Kenya	√		1999
58	Kuwait	√		1991
59	Kyrgyz Republic	√		2009
60	Lebanon		√	
61	Lesotho		√	
62	Liberia		√	
63	Libya		√	
64	Madagascar		√	
65	Malawi	√		2001
66	Malaysia	√		
67	Maldives		√	
68	Mali		√	
69	Mauritania		√	
70	Mauritius	√		2001
71	Mexico	√		2012
72	Mongolia	√		2002
73	Morocco		√	
74	Mozambique	√		2010
75	Namibia	√		2005
76	Nepal		√	
77	Nicaragua	√		2007

Do accounting standards matter

78	Niger		√	
79	Nigeria	√		2012
80	Oman	√		1986
81	Pakistan	√		2012
82	Panama		√	
83	Papua New Guinea	√		2001
84	Paraguay		√	
85	Peru		√	
86	Philippines	√		2005
87	Qatar	√		2010
88	Rwanda	√		2008
89	Samoa		√	
90	Saudi Arabia		√	
91	Senegal		√	
92	Seychelles		√	
93	Sierra Leone		√	
94	Solomon Islands		√	
95	South Africa	√		2005
96	Sri Lanka	√		2011
97	St. Lucia	√		2001
98	St. Vincent and the Grenadines		√	
99	Swaziland	√		2012
100	Syrian Arab Republic		√	
101	Tajikistan		√	
102	Tanzania	√		2004
103	Thailand		√	
104	Togo		√	
105	Tonga		√	
106	Trinidad and Tobago	√		1999
107	Tunisia		√	
108	Turkmenistan		√	
109	Uganda	√		1998
110	Uruguay	√		2011
111	Uzbekistan		√	
112	Venezuela, RB	√		2008
113	Vietnam		√	
114	Yemen, Rep.		√	
115	Zambia	√		2008
116	Zimbabwe	√		2010