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International financial reporting standards and foreign direct investment: The case of Africa

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ABSTRACT

A number of empirical studies have shown that the adoption of International Financial Reporting Standards (IFRS) promotes foreign direct investment (FDI) in developing countries and this finding chimes with pronouncements and policies of various international organisations such as the World Bank (WB) and the International Monetary Fund (IMF). Contrastingly, and on the basis of a study of 34 countries over a 20year period, our study provides empirical evidence that the comparability effect of full IFRS adoption portend a negative impact on the net FDI of African countries. Our findings have two key implications. First, in the case of Africa, foreign investors appear to be concerned with the costs of operating in an IFRS-regulated environment. Secondly, fundamental institutional structures such as the rule of law, the legal system and the level of corruption, rather than IFRS adoption, appear more important in sustaining or enhancing the level of FDI in African countries.

1. Introduction

Accounting standards and the quality of financial information are viewed as an integral part of a country's institutional infrastructure. It is generally argued that accounting information prepared on the basis of generally accepted standards or principles will ensure, or contribute to, accountability and transparency, an appropriate allocation of resources and capital flows, an efficient functioning of financial markets, the stability of the financial system, and the governance of corporations and organisations.

Consequently, there has been a notable research attention on the role played by accounting standards on a country's level of development (e.g. Wallace & Briston, 1992; Larson, 1993; Larson & Kenny, 1995, 1996), with a more recent emphasis on the implications of IFRS adoption or implementation in developing or emerging economies (e.g. Chamisa, 2000; Abd-Elsalam & Weetman, 2003; Ali, 2005; Perera & Baydoun, 2007; Tyrrall, Woodward, & Rakhimbekova, 2007; Djatej, Gao, Sarikas, & Senteney, 2011; Boolaky, 2012a,b; Daske, Hail, Leuz, & Verdi, 2008; Bova & Pereira, 2012; Ben Othman & Kossentini, 2015).

Whilst these studies rely on different research approaches (e.g. country vs. firm data, quantitative vs. qualitative analysis, multi-country vs. single country design), what appears to emerge notwithstanding are very mixed results in terms of positive, negative, partial or non-significant effects of the IFRS regime on corporate level (e.g. accounting quality) or national level outcomes (e.g. stock market development; economic growth), which are then associated to different theoretical perspectives drawn from economics, management and international business. As highlighted by Ben Othman and Kossentini (2015), this mixed picture reflects different research and policy making viewpoints arguing (i) the potentially 'disruptive' effect of importing wholesale standards in a country that is not institutionally 'ready' or 'appropriate' for such a regime, or alternatively (ii) that IFRS implementation is part of a developing country's gradual 'modernisation strategy' (Larson & Kenny, 1996) that will enable the local economy to become part of the global economy, by attracting international investors and foreign capital flows.

The latter perspective generally underpins the policies of various international bodies such as the WB, IMF and OECD (Organisation for Economic Cooperation and Development) — supported for instance by the International Federation of Accountants (IFAC) and the International Organization of Securities Commission (IOSCO). A key justification (and metric) within this globalisation discourse is the level of Foreign Direct investment (FDI).

FDI is typically defined as "*a cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy*" (OECD, 2013). The "lasting interest" is a key element of FDI compared to other types of foreign investment (e.g. investing via local stock markets) and it is often assumed that multinational companies (MNCs) would be at the forefront of FDI flows in developing countries, whilst also bringing other tangible benefits such as technology transfer, know-how, skills and new management techniques to host countries via mergers, acquisitions, joint ventures and greenfield investments (Sannassee, 2007; Amiram, 2012). Given the significant benefits, many studies (e.g. refer to Akisik, 2008;

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Gordon, Loeb, & Zhu, 2012) have sought to examine the relevance of institutional factors (e.g. political stability, legal framework, infrastructure) on the extent of FDI.

However, only a few studies (e.g. Akisik, 2008; Amiram, 2012; Gordon et al., 2012; Louis & Urcan, 2013; Chen, Ding, & Xu, 2014) have focused on the extent to which a country's 'accounting infrastructure' – whether in terms of standards, practices, regulatory framework and/or profession – can contribute to greater levels of FDI. Although there is some empirical work in support of this thesis (Preobragenskaya & McGee, 2004; Akisik, 2008; Gordon et al., 2012; Marquez-Ramos, 2011; Chen et al., 2014) in relation to IFRS adoption, the results have so far been limited to specific countries/regions or broad dichotomies (e.g. developed vs. developing countries). Relatedly, there has been very little examination of the contribution of IFRS adoption on the African continent (Chen et al., 2014) in the presence of key related institutional variables, such as the rule of law, legal system and the level of corruption. We therefore raise the following two questions: Firstly, what is the influence of key 'non-accounting' institutional variables (such as the rule of law, corruption and legal systems) on FDI in Africa? Secondly, what is the incremental influence (if any) of IFRS adoption on FDI in African economies?

The emphasis on IFRS, FDI and Africa is motivated by the following reason. Firstly, the vast majority of African countries have continued to face a stunted level of development in the last 20 years or so, in spite of recurrent regional- and international-led initiatives, thereby leading to wide variations in, and poor performance of, economic, health and social outcomes across the continent (Bakre, 2008). At the same time, the implications of location advantages (Dunning, 2005, 2006; Chen et al., 2014), reflected for instance in terms of institutional infrastructure (e.g. rule of law, political stability, accounting standards), are well established among policy makers and have to some extent been emerging in many African nations - yet with apparently little positive effect. In addition, resources are scarce in African countries and attempts to improve 'institutional infrastructure' may be a typical prescription from outside agencies such as the World Bank, but imply significant time, efforts and costs by different parties (public and private sectors). As a result, a decision to invest in a particular item of infrastructure (e.g. improving the application of the rule of law, costs of adopting IFRS) may imply less resources and opportunities to improve other aspects within a country's institutional infrastructure.

Secondly, there are very recent indications that increases in FDI flows to Africa have started to overtake those of other regions and globally, and more importantly that these appear to be spreading beyond the traditionally stronger economies (World Bank Report, 2014) on the continent such as South Africa and Nigeria. Therefore, an understanding of the effects of the accounting infrastructure in general, and IFRS adoption/implementation in particular, can help policy makers understand the dynamics underlying the relationship between the nature of institutional reforms and FDI, and prioritise costly reforms, accounting or otherwise, that can significantly lead to higher FDI.

Thirdly, prior work on IFRS and developing economies have tended to consider the implications for stock market development (Larson & Kenny, 1996; Ben Othman & Kossentini, 2015) and listed companies. This assumes that a large proportion of companies are listed and that stock markets are very active in developing economies, which is often not the case since companies in developing economies have different ownership, financing, and governance structure compared to those in developed ones.[1] With the exception of a handful of African countries, evidence of stock market development at national level is however limited or not conclusive (Andrianaivo & Yartey, 2010; Ntim, Opong, Danbolt, & Dewotor, 2011; Ntim, 2013), given the emphasis on debt financing and direct investment/control of unlisted firms. It would therefore seem more judicious to consider the consequences of IFRS adoption by focusing instead on FDI in the African context. In contrast to previous studies, our study uses 1996 as the base year of evaluating IFRS on FDI of African countries. This is the year International Accounting Standards (IAS) was first adopted by some African countries such as Zimbabwe, Tunisia, and Egypt (Chamisa, 2000; Zeghal & Mhedhbi, 2006). Previous studies have used 2005 at the time when IFRS was officially adopted by European Union countries. This may be problematic as the sources of FDI inflow into Africa go beyond Europe; and most African countries have trade ties with North America, and Latin America and Asian countries. Lastly, our measure of foreign direct investment differs from previous studies (Groh & Wich, 2012; Gordon et al., 2012; Inekwe, 2013), and in that its FDI estimation is scaled by the gross domestic product (GDP) of the country, and is in line with the one used by international organisations such as Word Bank, international Monetary Fund, International Financial Statistics and Balance of Payments databases and the International Debt Statistics (World Bank Report, 2014).

Relying on a panel dataset of 34 African countries over a 20 year period, we find that full IFRS adoption is negatively associated to net FDI. We also find that the country's basic legal and socio-economic factors, namely the rule of law, legal system and the level of corruption, are more critical in attracting FDI than the adoption of international accounting standards in Africa. These findings contribute to the literature by revealing an African-specific dynamic that has not been highlighted in previous cross-country or cross-regional studies (e.g. Akisik, 2008; Gordon et al., 2012).The results in effect suggest that IFRS adoption could play a detrimental part in a country's efforts aimed at enhancing FDI, and that attempts to prioritise IFRS adoption ahead of more crucial legal and anti-corruption reforms might be ill-judged. The results have important implications for policy makers in African countries in terms of the priorities to be assigned to particular infrastructural reforms (including IFRS implementation), and from a theoretical perspective, lend support to the notion of particularism and world system theory set out by Larson and Kenny (1996).

2. Theoretical framework, review of literature and development of hypotheses

Early work on the economic consequences of accounting practices and reforms thereof in developing economies has tended to focus on the impact for financial markets due to the need for investors to access relevant and reliable information for decision-making purposes (e.g. Van Agtmael, 1984; Sudweeks, 1989). By extension, accounting information that is harmonised from the adoption of a common set of standards is generally seen to be beneficial since it would reduce information asymmetry between the different parties, thereby enabling a more efficient allocation of resources by the financial markets (Belkaoui, 1988; Larson & Kenny, 1996). This is consistent with the so-called 'modernisation' theory (Ben Othman & Kossentini, 2015; Larson & Kenny, 1996) which postulates that economic development arises from gradual, yet structural, changes in the economy and on an universal basis therefore, the expectation that events and transactions have to be accounted in the same way is a reflection of this modernisation trend, thereby enabling the internationalisation of business and investment activities.

Whilst Ben Othman and Kossentini (2015) find support for this theory in their study of 55 emerging economies (2001–2007 data), Larson and Kenny's (1996) initial work on 27 developing countries found no significant association between IAS adoption and stock market development. In regard of the latter, it has been argued that alternative perspectives — contingency theory and world system theory - may be more appropriate. In particular, contingency theory in this context suggests that IFRS adoption would only yield economic benefits if the standards are modified to fit the local context. Lastly, world system theory (Larson & Kenny, 1996) advocates that developing countries are misguided in seeking to internationalise or conform to externally defined expectations of economic development, and should instead focus on designing accounting standards that are customised to the country's cultural, political, economic and social context.

Pointedly, Larson and Kenny (1996) contend that attempts to impose IFRS on a wholesale basis may actually be counter-productive but

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their empirical analysis does not reach such a conclusion due to non-significant results. Ben Othman and Kossentini's (2015) concur with these results but at the same time, challenge the contingency perspective by showing that a partial adoption can be equally detrimental due to the potential conflation of accounting practices in a national context. In conclusion, the links between stock market development and IFRS adoption remain tenuous and in the context of African developing countries, we would argue that stock markets are less central to the level of economic development and consequently, one would expect IFRS adoption to have other more important consequences, namely in relation to FDI.

Whilst the theoretical underpinnings of the relationship between IFRS adoption and FDI do have some resonance with the tenets of modernisation theory, the eclectic paradigm postulated by Dunning (1977; 1988; 1994; 2000) and Dunning and Lundan (2008) suggests that the ownership-specific advantages, location-specific advantages and internalization advantages (Ownership Location Internationalization (OLI) paradigm) are the three main reasons why firms engage in foreign investments (Gordon et al., 2012; Chen et al., 2014). The argument is that for any foreign investment to be feasible, these three advantages must compensate for the cost of operating in a foreign country and subsequently earn a return on investment that is higher than what it expects to earn in the home nation (Denisia, 2010).

The OLI paradigm conceptualises multinational firms' behaviour when investing overseas and contends that these three advantages will be considered when engaging in FDI decisions. For example, such considerations have been identified as the major rationale for Chinese investments abroad (Sanfilippo, 2010; Zhang & Daly, 2011) and location advantages such as government infrastructure, regulatory environment, risk, low corruption, investor protection and a country's education level have been found to be significant determinants of FDI (e.g. Globerman & Shapiro, 2003; Ramasamy & Yeung, 2010; Marquez-Ramos, 2011; Amiram, 2012).

Similar to prior work in this field (e.g. refer to Akisik, 2008; Gordon et al., 2012), we contend that a country's decision to adopt IFRS is part of the location advantage, in line with the host country's assets such as abundant supply of natural resources, low cost of factors of production, large domestic market, favourable government policies, adequate infrastructure and business environment. These resources could signal lower tax rates, openness to trade, rule of law and the protection of rights to property. Thus IFRS become isomorphic to the country i.e. whether a country adopts IFRS will depend on its business strategies, resources and capabilities which are intended to achieve some level of competitive advantage (Judge, Li, & Pinsker, 2010; Grosse & Trevino, 2005; Bobillo, López-Iturriaga, & Tejerina-Gaite, 2010). In this vein, Asiedu (2006) established that natural resources and large markets promote FDI inflows to Africa more than other considerations.

Other studies have identified that openness to FDI, lower inflation, political stability, good infrastructure, educated population, level of corruption and reliable legal system, political instability, weak infrastructure, macroeconomic instability, poor governance, low growth, hostile regulatory environment and poor investment promotion policies all have similar effect on FDI (Dupasquier & Osakwe, 2006; Zhang & Daly, 2011). However, developing countries are more likely to benefit from cross border investments of countries in a similar category of growth than from developed economies. This is because emerging and developing countries appear less attractive to foreign investors due to their poor legal and political systems, and poor infrastructural developments (Groh & Wich, 2012; Marquez-Ramos, 2011).

Horen (2007) also observes that banks from developing countries are more likely to invest in small developing countries with weak institutions where high-income country banks are reluctant to invest. This analogy can be extended to European countries with more developed regions in the West, whilst the East can be described as emerging/developing countries. Thus, Djatej et al. (2011) argue that IFRS is comparatively more beneficial for firms from Eastern European countries, which are less developed, than for firms from Western European countries, which are largely developed. Their finding supports the argument that developing countries benefit less from adopting IFRS partly due to the level of institutional structures and stock market development.

Yet, Gordon et al.'s (2012) study of IFRS and FDI in the case of a large sample of 124 countries finds that only developing countries, as opposed to developed countries, appear to be benefit from the 'IFRS effect' and as a result report of the significantly higher FDI levels. Gordon et al. (2012) suggests that the implementation of IFRS in a developing country has the potential to foster greater transparency, familiarity, reduce information asymmetry and lower processing costs, relative to the case of a developed country as a result of the latter already following "highly sophisticated domestic accounting standards" (Gordon et al., 2012, p. 379). Whilst Gordon et al. (2012) explicitly examines the FDI consequences in developing vs. developed country setting, it does however tend to assume that 'developing economies' consist of relatively homogeneous constituencies, whether located for instance in Asia, Africa or America. Gordon et al. (2012) do not state if there is any difference in the association between IFRS and FDI between different regional clusters, whilst Akisik (2008) does identify some regional effects between the countries located in Asia, Latin America, Central and Eastern Europe. Yet, Akisik's (2008) dataset did not include the case of African countries.

After the debt crises of the 1980s and the subsequent economic downturn, it became obvious to African policy makers that there was need to abandon protectionism and open up their economies to foreign direct investments and competition (Akinlo, 2004). This was a wake-up call, which promoted closer global economic integration and a greater flow of trade and investments. Nigeria, for instance, had to repeal the indigenization decree which forbade foreign investors from certain sectors of the economy, whilst limiting their ownership in others. Such liberalisation was also witnessed in Ghana, Kenya, Uganda and Tanzania. However, despite these adjustments, Africa is yet to become a preferred destination for foreign direct investments (UNCTAD, 2012). Table 1 shows the total FDI from 2010 to 2012 in Africa compared to other developing countries and regions.

The relevance of IFRS adoption in African developing economies remains a much debated issue. Chamisa (2000) found evidence that IFRS-based financial accounting and reporting are key to gaining credibility for economically impoverished countries such Zimbabwe and similar developing countries in the region. Bova and Pereira (2012) used limited data on Kenya to provide evidence of the potential economic effects of adopting IFRS in an African country, where the capital market is relatively open and compliance enforcement is relatively weak. At the same time, there remains an exigent question as to the relevance of international standards to developing countries where the costs of compliance may outweigh the benefits for local companies (Boolaky, 2012a,b; Ghanshyam-Poudel, Hellmann, & Perera, 2005), and of the need to ensure that complementary mechanisms (e.g. rule of law, low level of corruption and legal system) are also in place. For example, it has been argued that common-law countries tend to better protect investors' rights compare to code law counties (La Porta et al., 1998) and this would be of particular relevance to FDI sources.

Previous studies on the benefits of IFRS adoption on developing countries contain mixed results. Whilst some studies (Gordon et al., 2012; Chamisa, 2000) show its positive impact, others have questioned the rationale for adopting such standards by developing economies which have less developed capital markets (Bakre, 2008; Hossain & Hammami, 2009; Arnold & Sikka, 2001) or where the informational needs of local users may be at odds with the decision to adopt IFRS: the latter being in line with either the contingency or world system perspectives.

The institutional economic theorists argue that the market size of the economy, such as the gross domestic product per capital, is crucial in attracting investments (Zhu, Eden, Miller, Thomas, & Fields, 2012). As such, IFRS adoption may be an advantage to a host country in

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Table 1
FDI inflows 2010–12 (US$ billions).

Region or economy	2010	2011	2012
World	1381.0	1604.2	1310.7
Developed economies	674.9	807.8	548.9
European Union	358.0	440.0	287.0
United States	197.9	226.9	146.7
Australia	35.2	65.8	48.5
Japan	−1.3	−1.8	−0.4
Developing economies	630.9	702.7	680.4
Africa (a continent comprised of 54 countries)	43.2	43.4	45.8
Brazil	48.5	66.7	65.3
China	114.7	124.0	119.7
India	24.2	31.6	27.3
Russia Federation	43.3	52.9	44.1

Source: FDI inflows 2010–2012, United Nations Conference on Trade and Development (UNCTAD), January 2013.

attracting FDI. Bartels, Napolitano, and Tissi (2013) and Jean, Tan, & Sinkovics (2011), argue that location within the global economic space will be of interest to both host and international investors. However, the extent to which the location advantage and IFRS adoption specifically impacts on the net FDI of Africa countries adopting the standards has not yet been fully considered.

In support of the above argument, Amiram (2012) asserts that foreign investors' confidence would be enhanced as a result of operating in an accounting based environment they are familiar with (including IFRS), which would then lead them to invest more in a their target market. This familiarity effect is found to be valid and Amiram (2012) also concluded that countries with less corruption and more investor protections receive more increase in the flow of foreign equity investments, upon the adoption of IFRS. Yet, Akisik (2008) does not find consistent evidence of the effect of the different legal system whilst a measure of effectiveness in controlling corruption is found to be significantly and positively associated to higher levels of FDI. Contrastingly, Gordon et al. (2012) find that a measure of the rule of law is positively associated with FDI in the case of developing countries but there are no significant results for the corruption metric and the study does not consider the impact of different legal systems (as in the case of Marquez-Ramos, 2011). Thus, our first hypothesis addresses the impact of the three key institutional structures that are arguably critical to the IFRS transparency and harmonisation, and thereby in terms of its effects on FDI:

Hypothesis 1. Institutional structures in terms of the rule law, legal system and the level of corruption are significantly and positively associated to the flow of foreign direct investment.

Financial reporting deals with the preparation and disclosure of a companies' financial position and results, and hence the convergence of accounting reporting standards globally is expected to enhance comparability effect. With globalisation, there is a tendency towards global financial integration and Africa should benefit from a more globally recognized accounting standard in the form of enhanced flow of FDI. In this respect, Marquez-Ramos (2011) finds that the reduction of information cost among European countries due to their adoption of IFRS has enhanced the flows of trade (and FDI among them). She also relates the IFRS reforms to that of the development of a 'level of familiarity' between foreign and local firms, which would otherwise lead to higher information costs and risks in doing business with unfamiliar partners. As a result, Marquez-Ramos (2011) and Babío-Arcay and Muiño-Vázquez (2005) show that transparency strengthens the comparability effect, reduces information asymmetries, and consequently should promote the flow of foreign direct investment. Christensen, Lee, and Walker (2008) studied the effects of incentives on changes in financial reporting quality following the adoption of IFRS and found that adopting IFRS on its own does not improve accounting quality. They established from studying timely recognition of losses and earnings management, which are used to measure accounting reporting quality, that improvements in accounting quality were related to the level of incentives the preparer has to present quality accounting statements and on the adoption of IFRS. The incentives for foreign investors may be regulatory or market-driven in nature. Hence, consistent with modernisation theory (Larson & Kenny, 1996; Ben Othman & Kossentini, 2015) and Dunning's Eclectic paradigm, it is expected that an institutional effect combined with IFRS adoption will incrementally improve the quality of information and thereby exert a positive effect on the flow of FDI to African countries. Our second hypothesis thus states that:

Hypothesis 2. Net FDI inflow to African countries is positively affected by the comparability effect of IFRS adoption.

3. Research design

We use the pooled OLS regression model to estimate the effect of some macroeconomic variables on economic growth. Foreign direct investment (FDI) has been used in macroeconomic studies as a proxy for measuring economic growths caused by foreign injection of capital. We have applied this variable but in a modified form by using the FDI inflows scaled by the GDP. Used as a dependent variable, FDI is the sum of equity capital, reinvestment of earnings, (and other long and short terms capital) as shown in a country's balance of payments. The advantage of this measure of net FDI is that it captures new investment inflows less disinvestment from foreign investors in the economy of the reporting country. In the first regression, we use these macroeconomic variables - gross domestic product, gross domestic product per capital, inflation, human capital, infrastructure, openness to trade and special drawing rights interest, to measure the level of impact on net FDI. These can be classified either as pull factors or push factors. Pull factors are endogenous to the African countries whilst push factors are exogenous to these countries.

3.1. Model

3.1.1. Special drawing rights interest rate (SPINT)

Special drawing rights interest rate (SPINT), sourced from DataStream and published by the International Monetary Fund (IMF) was used as a proxy for push factors. However, the expectation is that the coefficient of SPINT will be negative from the regression results.

The pull factors are active within the host country and are viewed as endogenous to these countries. The pull factors used in this study and their proxies are:

3.1.2. Market size — gross domestic product (GDP)

The log of GDP is used as a proxy for market size. It is expected that a large domestic market would have a positive effect on the flow of FDI, particularly market-seeking or horizontal FDIs, to African countries. This variable is expected to have a positive coefficient in the regression. Total GDP figures used for this study were obtained from the Euromonitor/IMF, International Financial Statistics (IFS).

3.1.3. Level of economic development — GDP per capita (GDPPC)

Per capita GDP is used as a proxy for the level of economic development and wellbeing of the citizens. The expectation is that the higher the GDP per capita, the higher the demand for goods and services and hence the higher the flow of FDI as foreign investors try to take advantage of revenues and profit opportunities in Africa. This variable is expected to have a positive coefficient in the regression. GDP per capita data are sourced from the Euromonitor/IMF, International Financial Statistics (IFS).

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3.1.4. Macroeconomic stability–inflation (INFLAT)

Inflation is used as a proxy for macroeconomic stability. The expectation is that higher inflation rates means higher macroeconomic instability and could scare away foreign investors. Hence, it is expected to have a negative coefficient in the output of the regression. The inflation data for these African countries are sourced from the Euromonitor/IMF, International Financial Statistics (IFS).

3.1.5. Openness to trade (OPENN)

Openness to trade reflects the host countries' trade relations with the world and its proxy the share of trade, made up of import and export, in the GDP. This is expected to have a positive coefficient as FDI, especially efficiency-seeking and resource-seeking FDIs will be attracted more to countries that are more open to trade. Market-seeking FDI may, on the other hand, may be more attracted to countries that are less open to trade as trade restrictions force investors to set up local subsidiaries to take advantage of revenue and profit opportunities. The expected coefficient of this will vary, depending on other country characteristics. The data used to construct *OPENN* is sourced from the Euromonitor/IMF, International Financial Statistics (IFS).

3.1.6. Human capital (HUCAP)

The percentage of literate adults aged 15 years and above is used as a proxy for human capital development. Many previous studies have concluded that the availability of skilled labour is one of the determinants of foreign direct investments. It is also expected to make technology transfer very easy and to have a positive coefficient in the regression as a positive FDI determinant. The data for *HUCAP* were sourced from Euromonitor/UNESCO.

3.1.7. Infrastructure (INFRAST)

The number of fixed telephone lines in use per thousand of the population is used as a proxy for the level of infrastructural development. It is expected that infrastructural development would pull FDI into Africa countries. Excellent infrastructure can reduce operation costs for businesses, whilst also improving the standard of living. The expected coefficient from the regression results is expected to be positive and the data are sourced from the Euromonitor/International Telecommunications Union (ITU).

3.1.8. Regulatory quality index (REGQ)

This is one of the institutional variables and it measures a perception of the government's ability and likelihood towards formulating and implementing policies that promote activities of the private sector. The annual index was sourced from Euromonitor and higher values reflect better governance.

3.1.9. Rule of law index (RULAW)

This is an institutional variable and it reflects the perceptions about agents' confidence in the rules and regulations of the society, the quality of the police, property rights, contract enforcement, the courts and the likelihood of crime and violence. The index was sourced from Euromonitor and higher values reflect better governance.

3.1.10. Corruption perception index (CORR)

This measure reflects corruption as perceived by businesses and entrepreneurs. It is a composite index built from surveys involving business people. The index was sourced from the Euromonitor/Transparency International and higher values reflect a cleaner and less corrupt society.

3.1.11. Legal system (LEGAL)

LEGAL is a dummy variable that measures the legal system of a country. We classify countries based on their legal codes. Countries that have common law system are assigned one and zero if a civil law system.

3.1.12. Time effect (PERIOD)

The time effect considers if the function being estimated has changed over time. Since the model was built with data from 1990 to 2011, dummy of 1 was used for adoption from 2001 and zero for periods prior. The choice of 2001 is motivated by the fact that it was the year the first set of IFRS was adopted by some African countries.

Based on the above, our regression model is:

$$\frac{FDI_{it}}{GDP} = \beta_0 + \beta_1 GDP_{it} + \beta_2 GDPPC_{it} + \beta_3 INFLAT_{it} + \beta_4 INFRAST_{it} + \beta_5 LnOPENN_{it} + \beta_6 HUCAP_{it} + \beta_7 SPINT_{it} + \varepsilon_{it} \quad (1)$$

where:

FDI	foreign direct investment;
GDP	gross domestic product;
GDPPC	gross domestic product per capita;
INFLAT	inflation rate;
INFRAST	level of infrastructural development;
LnOPENN	natural logarithm of countries share of trade (imports plus exports);
HUCAP	percentage of literate adults aged 15 years and above;
SPINT	special drawing rights interest rate.

Because we apply the net FDI, and to ensure that our result is not due to omitted correlated economic factors, our design controls for the effects of institutional qualities such as rule of law and corruption perception indices. These institutional variables are standardised and measured on a scale of −2.5 to 2.5 respectively. Eq. (2) below is the basis of testing our first hypothesis. We argue that the perceived level of corruption, law enforcement and establishment of democratic principles in developing countries could influence transparency and thus, the overall level of FDI. Our second regression model states as:

$$\frac{FDI_{it}}{GDP} = \beta_0 + \beta_1 GDP_{it} + \beta_2 GDPPC_{it} + \beta_3 INFLAT_{it} + \beta_4 INFRAST_{it} + \beta_5 LnOPENN_{it} + \beta_6 HUCAP_{it} + \beta_7 SPINT_{it} + \beta_8 RULAW_{it} + \beta_9 CORR_{it} + \beta_{10} LEGAL_{it} + \varepsilon_{it} \quad (2)$$

where:

RULAW	agents' confidence in the rules and regulations of the society;
CORR	measures corruption as perceived by businesses and entrepreneurs;
LEGAL	dummy variable assigned 1 for a common law system and 0 for a civil law system.

In the third regression model, we use three IFRS adoption variables to capture the different levels of IFRS adoption in Africa: FADOPT (where a country has fully adopted IFRS as its national accounting standard and its mandatory for listed firms. Countries such as Kenya, Ghana, South Africa are in this category); PADOPT (where a country adopts IFRS for specific sectors e.g. banks and financial institutions e.g. in Mozambique and Eritrea, only financial and lending institutions, and multinationals are required to use the standards. Only relevant aspects of the standards are adopted and other entities are not obligated to use them) and MADOPT (if some IFRSs are adopted or modified to suit the local use e.g. in Algeria, the stakeholders are not defined as the main users of the financial statements and the modified standards contains 'extraordinary' items which is not the case with the IFRS as approved by the IASB).

The dummy variable PERIOD is used to capture if the function being estimated has changed over time. Since the model was built with data from 1996 to 2014, dummy of 1 is used for periods 2005 to 2014 and 0 for other periods. The European Union's adoption of IFRS in 2005 made it a milestone in the history of the IFRS adoption and accounting

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standards convergence. In any case, most of the adoption of the standards in Africa took place after 2005 except for Kenya, Lesotho, Malawi, Tanzania and Uganda.

One of the major arguments in the study is that the mere adoption of IFRS will not necessarily result in increased FDI inflow without enabling institutional structures. We therefore apply stepwise backward regression to determine the institutional variables that are essential for FDI inflow. We include three levels of IFRS adoption as important independent variables in the regression, and test the significance of these factors in the estimation by examining their coefficients. A positive sign will imply that IFRS will promote net FDI to the African countries as it enhances comparability and hence lowering information costs. This assumption underlines our second hypothesis with the following regression model:

$$\frac{FDI_{it}}{GDP} = \beta_0 + \beta_1 GDP_{it} + \beta_2 GDPPC_{it} + \beta_3 INFLAT_{it} + \beta_4 INFRAST_{it} + \beta_5 LnOPENN_{it} + \beta_6 HUCAP_{it} + \beta_7 SPINT_{it} + \beta_8 RULAW_{it} + \beta_9 CORR_{it} + \beta_{10} LEGAL_{it} + \beta_{11} MADOPT_{it} + \beta_{12} FADOPT_{it} + \beta_{13} PADOPT_{it} + \beta_{14} PERIOD_{it} + \varepsilon_{it} \quad (3)$$

where:

MADOPT dummy variable assigned 1 if some IFRSs are adopted or modified to suit the local use and 0 otherwise;
FADOPT dummy variable assigned 1 if a country has fully adopted IFRS as its national accounting standard and it is mandatory for listed firms;
PADOPT dummy variable assigned 1 if a country adopts IFRS for specific sectors such as financial and lending institutions, and multinationals are required to use the standards and 0 otherwise;
PERIOD dummy variable assigned 1 for adoption from 2001 and 0 for adoption prior to 2001.

The inclusion of institutional factors poses a possible endogeneity problem. This is because the error term may be correlated to Eq. (3). To correct for this potential endogeneity issue, we apply a two-stage instrumental variable (IV) model to examine the association between net FDI and IFRS adoption on African countries. This also allows us to robust check our second hypothesis.

In the first stage IV estimation, we use IFRSADOPT, which is the aggregate of all the levels of IFRS adoption, as the endogenous variable and regress against all the exogenous (independent) variables in the original equation. As with the IV model, we select an instrumental variable *REGQ* (regulatory quality index, which is institutional variables and measures a perception of the government's ability and likelihood towards formulating and implementing policies that promote activities of the private sector. The annual index was sourced from Euromonitor and higher values reflect better governance), uncorrelated with the error term in Eq. (3) but correlated with our stochastic variable, IFRSADOPT and substituted the residual value in the second stage of the IV regression. See appendix for the correlation table. The regulatory quality index is a perception of the country's ability to formulate policies that promote economic growth. The IV model regression is:

$$IFRSADOPT_{it} = \beta_0 + \beta_1 REGQ_{it} + \beta_2 GDPPC_{it} + \beta_3 INFLAT_{it} + \beta_4 INFRAST_{it} + \beta_5 LnOPENN_{it} + \beta_6 HUCAP_{it} + \beta_7 SPINT_{it} + \beta_8 RULAW_{it} + \beta_9 LEGAL_{it} + \beta_{10} PERIOD_{it} + \varepsilon_{it} \quad (4)$$

3.2. Data and sample selection

The study relies on panel data from 1990 to 2014 to explore the relationship between FDI flows, gross domestic product (GDP), GDP per capita (GDPPC), inflation (INFLAT), special drawing rights interest rate (SPINT), human capital development (HUCAP), infrastructure (INFRAST), rule of law index (RULAW), corruption perception index (CORR), and regulatory quality index (REGQ), openness to trade (OPENN), legal system and IFRS adoption in 34 African countries. For ease of analysis and comparability, all values are denominated in US dollars at year-on-year exchange rates.

In our initial data and sample selection, we examined the IFRS status of all 54 countries in Africa as published by the various data sources such as the Reports on the Observance of the Standards and Codes (ROSC) of the World Bank; IFRS Foundation database (www.ifrs.org), PWC (www.pwc.com) and Deloitte & Touche (www.iasplus.com). Countries with no IFRS status are removed leaving a sample of 48, and after excluding countries with missing data, our final sample comes to 34 African countries. Previous studies appear to have underestimated the number of African countries adopting IFRS e.g. Judge et al. (2010) used 8 countries; Lasmin (2012) used 6 countries; Covrig, Defond, and Hung (2007) and Louis and Urcan (2013) used 1 country and Gordon et al. (2012) used 19 countries. The inconsistency in these numbers may be related to the source of data that has been relied upon, since it appears that no single database provides an up to date number of countries adopting IFRS in Africa. To overcome this, we compiled our IFRS adoption figures from different data sources such as IASB website, Deloitte, PWC, ROSC report and cross checked such information with the accounting bodies of the respective countries.

Where the majority of the sources agree on a country's IFRS status, we accept it and also verify the details with the national accounting body of the country. For instance, in the case of Namibia, both Deloitte and PWC agree that the country has adopted IFRS but the IASB does not list the country as an IFRS adopter. Before categorising its IFRS status, we examined the ROSC report and confirmed such as with the Namibian national accounting body. However, where the majority of the sources disagree on the status of the country, we verify with the ROSC report and national body before classifying the country. Egypt for instance is not listed in the three main sources: IASB, PWC and Deloitte but the ROSC and national accounting body and other sources agree that the country has some level of IFRS adoption (Zeghal & Mhedhbi, 2006). We therefore analysed the extent of adoption in a way similar to the approach of Ben Othman and Kossentini (2015) and classify the country accordingly.

Our final sample of 34 in Table 2 is made of countries in three different levels of IFRS adoption: full adoption for all listed firms; partial adoption for banks and financial institutions, and modified or adoption of the some parts of the standards. In considering the level of adoption of a country, we first check the date of the official gazette and enactment by the national accounting board. Where information about a country's adoption status is not available on the above sources, we augment with other circular sources such as periodicals and verify such with the national accounting body of the country.

We also check if modifications to the Standards are supported by the country's accounting board. In Madagascar for example, companies can prepare statutory accounts in accordance with local GAAP or choose to apply full IFRS. Most entities have two sets of financial statements prepared in accordance with both the local GAAP and IFRS (PwC, 2014). For instance, Algeria allows listed firms to prepare their financial statements using IFRS, but there are few differences in the presentation of the financial statements. For instance, the income statement is allowed to contain an extraordinary item which is not the case with IFRS. This is therefore considered as a modified version and the country is classified as a modified adopter. In Tunisia, IFRS is not required in the preparation of financial statements for listed companies but can be applied to areas not covered by the Tunisian GAAP, e.g. IAS 12, IAS 19, IAS 32, IAS 39, IFRS 7, IFRS 9 (PwC, 2014; Deloitte & Touche, 2014); and therefore classified as a partial IFRS adopter.

We use 1996 as the base year; which is when IFRS was first adopted by an African country, which then precipitated the adoption by several countries in Africa. Our data period therefore covers from 1990 to

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Table 2
Level of IFRS adoption by African countries.

Full adoption		Partial adoption		Modified adoption	
Country	Year of adoption	Country	Year of adoption	Country	Year of adoption
Botswana	2007	Cameroun	2009	Algeria	2009
Ghana	2007	Eritrea	2010	Angola	2009
Kenya	1998	Lesotho	2001	Benin	2008
Mauritius	2001	Liberia	2012	Burkina Faso	2012
Namibia	2005	Madagascar	2005	Burundi	2004
Nigeria	2012	Mozambique	2006	Egypt	2006
Rwanda	2008	Morocco	2004	Ethiopia	2009
Sierra Leone	2006			Gabon	2009
South Africa	2005			Gambia	2007
Swaziland	2009			Malawi	2001
Tanzania	2004			Mali	2010
Uganda	1998			Seychelles	2009
Zambia	2005			Tunisia	1996
Zimbabwe	1996				

Sources: Deloitte website (ww.iasplus.com); Price Waterhouse Coopers website (www.pwc.com); IASB website (www.ifrs.org); and World Bank source (Report on the Observance of the Standards and Codes).

2014. We include countries at different levels of adoption (Nnadi, 2011), such as those that have fully adopted the standards; those that have adopted for specific institutions such as banks, and countries that have partially adopted or modified the standards, as adopting countries and all others are classified as non-adopting countries. The total observations for both the pooled OLS and IV are 908 and 875 respectively. Data sources for the variables include Euromonitor, International Monetary Fund and Transparency International. In addition, our study provides an up to date and enlarged sample size of African countries that have adopted IFRS.

4. Results

The descriptive statistics are presented in Table 3 and shows the mean, standard deviations and observations of the variables. It is interesting to note that the GDP of the countries in the study is positive (9.021) but the institutional variable RULAW has a mean of −0.745 indicating the low rating of rules and regulations in the society.

Table 4 shows Pearson correlation matrix for the variables. Our variable of interest, IFRSADOPT shows a positive correlation with most other independent variables except Rule of law (RULAW) which is negative. As this table indicates, IFRS adoption (IFRSADOPT) is positively correlated with GDP (0.204) but has a negative correlation with RULAW (−0.254). Though the correlations are mostly significant, the coefficients of the correlations are generally weak.

4.1. Empirical results

Table 5 provides the result of the pooled OLS regression model on the impact of the independent variables on net FDI. The overall fit of the model is 32.2%, measured by the adjusted R-square.

Specifically, gross domestic product (GDP) and openness to trade (OPENN) is positive and significantly associated with FDI (t = 8.86 and 18.38 respectively), whilst infrastructure (INFRAST) and special rights interest rate (SPINT) have a negative significant effect (t = −9.59 and −1.38 respectively). This suggests countries with positive economic growth and open-door policy to trade and investment will record higher net FDI whilst heavy investment in infrastructure and SPRINT may repel FDI into the country.

Table 6 shows the institutional factors: rule of law (RULAW), legal system (LEGAL) and corruption perception index (CORR) are positively associated with net FDI, at t-values of 4.81, 3.12 and 4.95 respectively. In summary, our theoretical prediction about institutional structures and net FDI is supported by the model results, which also provides good empirical support for H1. The model fit shows the adjusted R-squared of 49.8%, indicating the high impact of the institutional factors in attracting FDI.

Our second hypothesis is tested by the results in Table 7, which shows the effect of IFRS adoption on net FDI. The result indicates that full IFRS (FADOPT) adoption has a negative but significant effect on net FDI. However, the institutional variables: RULAW, CORR and LEGAL are significant and positive with t-value of 1.419; 0.667; and 1.531 respectively. The time effect variable (PERIOD) is also significant with a t-value of 2.907. These results show that whilst IFRS adoption by African countries is a significant practice, it has a negative effect on attracting FDI and suggests rejection of our null hypothesis for H2. However, our results may be biased by endogeneity issues associated with FDI and IFRS adoption variables which may not be captured in our pooled OLS model. Therefore a further test of endogeneity is carried out by conducting a two-stage instrumental variable test.

4.2. Robustness test

4.2.1. Two-stage IV regression result

To address the concern of endogeneity associated with the net FDI and IFRS adoption, we conduct as two-stage IV regression with IFRSADOPT as the dependent variable and our instrumental variable is REGQ, which has a high correlation with net FDI (see Table 8 for the Pearson correlation table). The IV results are presented in Table 8 and shows that our model is robust, with a Wald test of 28.32 and a total observation of 875.

We conduct a further test to check the endogeneity of the variables. Table 9 shows the result of the both the Durbin and Wu–Hausman tests. The results of the Durbin score and Wu–Hausman of 17.225 and 18.015 respectively are significant, confirming our earlier finding that the variables are exogenous and further confirm the rejection of our second hypothesis as correct.

Table 3
Descriptive statistics.

Variable	No. of Obs.	Mean	Std. dev.	Min	Max
GDP	928	9.021	1.082	4.289	12.920
GDPPC	928	7.224	1.240	4.458	10.070
INFLAT	820	1.833	1.227	−2.303	8.330
HCAP	916	4.431	0.785	2.054	4.549
INFRAST	928	5.001	2.110	0.693	9.380
OPENNS	919	−0.754	0.775	−2.423	1.769
SPINT	928	2.985	1.640	0.290	4.440
RULAW	928	−0.745	0.830	−2.200	1.000
CORR	928	6.602	2.201	4.758	16.601
LEGAL	919	7.031	0.882	−1.312	7.404

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Table 4
Pearson correlation matrix.

Variables	GDP	FDI	RULAW	SPINT	INFLAT	HCAP	INFRAST	OPENNS	REGQ	PERIOD	IFRSADOPT	CORR	LEGAL
GDP	1.000												
FDI	0.431**	1.000											
RULAW	0.197**	0.292	1.000										
SPINT	−0.234**	−0.265	0.312**	1.000									
INFLAT	−0.164	−0.462**	0.332**	−0.222**	1.000								
HCAP	0.279**	0.181	0.245**	0.321	0.257	1.000							
INFRAST	0.187	0.251**	0.347	0.524**	0.214**	0.078	1.000						
OPENNS	−0.071**	0.394**	0.220**	−0.263**	0.471**	−0.254	−0.031**	1.000					
REGQ	0.293**	0.405	0.312	0.225**	0.221	0.304**	0.352**	0.381**	1.000				
PERIOD	0.216	−0.211	0.332**	0.360	0.328**	−0.214**	0.263	0.125	0.136**	1.000			
IFRSADOPT	0.204**	0.336**	−0.254	0.332**	0.247	0.241	0.441**	0.475**	0.402**	0.104**	1.000		
CORR	0.217**	0.317	0.214	0.325	0.335**	0.347**	0.374**	0.352	0.287	0.298	0.263**	1.000	
LEGAL	−0.289**	−0.246	−0.442**	−0.312**	−0.254**	−0.321	−0.142**	−0.254	−0.331**	−0.214	−0.321**	−0.412	1.000

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.

Finally, the result of our sensitivity analysis using a different coding of 0 and 1 (1 for adoption and 0 none adoption) is consistent with our finding that IFRS adoption has a significant negative impact on FDI among African countries adopting the standards.

5. Discussion of results and conclusions

Our pooled OLS result (Table 5) indicates that INFRAST and SPINT have negative impact on the net FDI of African countries. As demonstrated in Bartels et al. (2013), a lack of infrastructure can stall economic growth. Therefore investing in infrastructure that allows the efficient global trade integration is essential for optimum result. A rise in the level of a country's infrastructural development by 1 could cause a fall of 11.2% of its net FDI. Additionally, a rise in the SPINT of a country will trigger about 0.18% reduction in the net FDI. This result could be explained by the fact that resource-seeking FDIs, which are common in Africa, are mostly not determined by the availability of basic infrastructure but by the availability of raw materials- which confirms the location advantage of the OLI paradigm.

The SPINT is a measure of determining the net interest rates charged on IMF loan obtained by member countries. Currently, the rates are submitted implicitly by the currencies employed in the special drawing rights which are: US$, Pound Sterling, Japanese Yen and Euros (Reich, 2013). The significant negative result of the global interest rate (*SPINT*) implies a perceived high risk premium on African investments which could lead to a higher threshold of expected return to trigger FDI flows. This can render the continent less competitive, compared with other emerging markets.

Openness to trade is significantly positive, implying that an open-door policy towards international investors will encourage growth of the net FDI of the host country. Our finding supports previous studies (Buckley, Forsans, & Munjal, 2012; Bartels et al., 2013), and further highlights the importance of institutional factors which strengthens FDI inflows (see also Fazio & Talamo, 2008). Since foreign made goods are common in Africa, FDIs that are market-seeking will flourish more in an open economy (Akisik, 2008).

Crucially, our study tested two important hypotheses. First, we sought to establish whether institutional structures which strengthen the comparability of IFRS adoption in African countries, can promote the flow of foreign direct investments. Second, we examined if net FDI inflow to African countries is positively affected by the comparability effect of IFRS adoption. Our results indicate that institutional factors such as rule of law, legal system and the perception of the level of corruption in the country play significant roles in increasing net FDI in African countries.

Our first hypothesis that institutional structures in African countries enhance FDI is supported. The result on Table 6 shows that the rule of law (RULAW), legal system (LEGAL) and corruption perception index (CORR) are significantly positive and therefore impact on net FDI. Such positive effect lends support to previous studies (Christensen et al., 2008; Fazio & Talamo, 2008 and Bartels et al., 2013), indicating the importance of reducing the perception of corruption on a country (Marquez-Ramos, 2011). Thus, reducing this perception is essential in fostering net FDI. Unfortunately, this perception remains relatively high in most African countries. The legal system result re-asserts the relevance of the common-law system in protecting investor rights (La Porta et al., 1998; Akisik, 2008) and by extension the investments by MNCs which are often the main purveyors of FDI.

The result of our second hypothesis shows that the comparability effect of IFRS adoption has a significant negative effect on the net FDI of African countries. This implies that the adoption of full IFRS do not increase the net FDI but rather reduces it. This result contradicts some previous findings on IFRS adoption on FDI of developing countries (Gordon

Table 5
OLS regression result for net FDI.

Variables	Coeff.	Std. err.	t-Value	P > t
GDP	0.128	0.014	8.86	0.060
GDPPC	0.005	0.012	0.39	0.699
INFLAT	−0.021	0.012	−1.78	0.075
HCAP	0.001	0.001	1.48	0.140
INFRAST	−0.112	0.012	−9.59**	0.000
OPENN	0.456	0.025	18.38**	0.000
SPINT	−0.018	0.013	−1.38**	0.045
Constant	−1.388	0.129	−10.78**	0.000
Number of obs.	709			
F (7703)	57.33			
R-Squared	0.325			
Adj. R-squared	0.322			

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.

Table 6
OLS regression results for institutional factors on net FDI.

Variables	Coeff.	Std. err.	t-Value	P > t
GDP	0.126	0.014	8.92**	0.000
GDPPC	0.023	0.012	1.88	0.060
INFLAT	−0.038	0.012	−3.07	0.102
HCAP	0.002	0.001	2.61	0.090
INFRAST	−0.110	0.012	−9.10**	0.000
OPENN	0.483	0.024	19.98**	0.000
SPINT	−0.016	0.011	−1.46	0.144
RULAW	0.107	0.022	4.81**	0.000
CORR	0.033	0.011	3.12**	0.002
LEGAL	0.203	0.041	4.95**	0.000
Constant	−1.018	0.137	−7.41**	0.000
Number of obs.	759			
F (10,769)	53.20			
Prob > F	0.000			
R-squared	0.498			
Adj. R-squared	0.489			

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.

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Table 7
Impact of IFRS adoption on Net FDI.

Variables	Coeff.	Std. err.	t-Value	P > t
GDP	0.257	0.100	2.571**	0.011
GDPPC	−0.064	0.076	−0.842	0.402
INFLAT	0.055	0.047	1.170	0.250
HCAP	−0.156	0.128	−1.219	0.221
INFRAST	−0.264	0.090	−2.933**	0.004
OPENN	1.313	0.125	10.504**	0.000
SPINT	−0.093	0.051	−1.824	0.070
RULAW	0.193	0.136	1.419**	0.006
CORR	0.030	0.045	0.667**	0.002
LEGAL	0.173	0.113	1.531**	0.000
MADOPT	0.428	0.281	1.523	0.128
FADOPT	−0.504	0.302	−1.669**	0.003
PADOPT	−1.443	0.251	−5.749	0.055
PERIOD	0.593	0.204	2.907**	0.004
Constant	−3.356	0.915	−3.668**	0.000
Number of obs.	908			
F (14, 921)	15.23			
Prob > F	0.000			
R-squared	0.339			
Adj. R-squared	0.317			

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.

et al., 2012) and is effectively challenging the modernisation theories, and is supportive of the world system theory. Furthermore and interestingly, Gordon et al. (2012) did acknowledge the possibility of a negative association between IFRS and FDI (see footnote 7, p. 378), in that the key source of FDI (MNCs) may have access to more detailed sources of information about the domestic firms (Razin & Sadka, 2003, 2007) and as such, do not necessarily see a benefit in higher levels of financial transparency arising from IFRS adoption. We also conjecture that IFRS implementation, and its outcome in terms of IFRS-based information, may be seen as a significant cost (in terms of compliance and too much local information in the public domain) to the foreign investor. As a result, FDI may flow to contexts where modified or local forms of accounting practice may be operating. An additional corollary to this interpretation is that the source of the FDI itself (MNC headquarters and ownership) may be less familiar with IFRS or not operating in an IFRS-based jurisdiction, and as such a result would be in line with Amiram's (2012) predictions of a lack of familiarity in this particular case. Further research may seek to disaggregate the 'national' sources of FDI to identify the IFRS base (or not) of the MNC's home country, and ascertain in more detail the degree to which the accounting regime affects FDI. However, our finding confirms Lasmin (2012), namely that adoption of IFRS neither enhances FDI nor international trade in such country. This is correct to

Table 8
Robustness test using IV regression result.

Variables	Coeff.	Std. err.	Z	P > z
GDP	0.047	0.118	0.400	0.670
GDPPC	0.026	0.014	1.855	0.064
INFLAT	−0.009	0.002	−3.564**	0.000
INFRAST	−0.002	0.001	−1.470	0.142
HCAP	0.012	1.750	0.079	0.062
CORR	0.471	5.540	0.085**	0.004
OPENNS	−0.245	9.630	−0.025	0.421
REGQ	0.135	8.720	0.015	0.060
LEGAL	0.051	0.944	0.054**	0.034
Constant	0.402	0.211	1.905***	0.000
Number of obs.	875			
Wald $chi^2(9)$	28.32			
Prob > chi^2	0.002			
Root MSE	0.627			

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.

Table 9
Tests of endogeneity.

Tests	t-Value	Significance
Durbin (score) chi2(1)	17.225**	0.000
Wu–Hausman F(1786)	18.015**	0.000

***, **, * significant at 0.01, 0.05, 0.10 level, respectively.
Ho variables are exogenous.

the extent that most FDIs are resource and market driven, rather than the comparability of financial reporting. This is confirmed in the case of developing countries such as Haiti, Nepal, Panama, Papua New Guinea, Tajikistan and Venezuela who have substantially adopted IFRS, but yet have no significant increase in their FDI since adoption (Lasmin, 2011; Ghanshyam-Poudel et al., 2005).We conclude that FDI in the African region is influenced by the location advantage, where the host country resources become the attraction or isomorphic factor for foreign investment. However, the sustainability of the net FDI seems to be critically more dependent on the institutional structures such as rule of law, legal system and the level of corruption existing in the country.

Distinctively therefore, whilst most of the previous studies have concentrated on other developing countries outside the Africa region (Akisik, 2008); or have included limited number of African countries that have adopted IFRS (Judge et al., 2010; Louis & Urcan, 2013; Covrig et al., 2007 and Gordon et al., 2012), we can point to some form of an 'African dynamic 'with regards to IFRS which appear to significantly affect the results.

In summary, we confirm that most countries adopting IFRS do so, not necessarily for the perceived FDI growth but rather to be reckoned as a socially acceptable and legitimate environment for international business (Judge et al., 2010). This is particularly correct for developing countries of the African region whose natural resources provide the basis for foreign investments. Most countries in African still rely on foreign aids from their former imperial rulers. The influence of these Western countries on the speedy adoption of IFRS by the African countries could be an issue for further research.

Notes

1. In their worldwide study of IFRS and FDI in developed vs. developing economies, Gordon et al. (2012) do not extensively address this point in terms of the variables used in their explanatory model.
2. See also Graham (1974) on the negative effect of special drawing right on developing countries. Gordon et al. (2012) show that national lending interest rates, capturing an investment factor that attracts FDI has a negative effect on FDI of developing countries.

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