The impact of International Financial Reporting Standards (IFRS) Adoption on Foreign Direct Investments (FDI): Evidence from Africa and Implications for Managers of Education

Akpomi, Margaret Emalereta
Business Education Department
Rivers State University
Port-Harcourt
megakpomi@yahoo.com

Nnadi, Matthias Akandu
School of Management
Cranfield University, Bedfordshire
United Kingdom

Abstract
Foreign direct investments have been shown by previous studies to promote economic growth and development especially in the emerging markets through human capital development and technology transfer. In this study, adopting the International Financial Reporting Standards (IFRS) is considered a way of attracting FDI, improving comparability in financial reporting, reducing information asymmetries and cost for foreign investors. The effect of regulatory quality is found as an incentive for quality of accounting information and compliance to the IFRS by firms. Using the fixed effect model for the regression and a sample of 48 countries in Africa, we find that adoption of IFRS has a positive effect on the flow of FDIs. We also established that regulatory quality is an incentive for compliance to IFRS standards. The results which are very necessary for managers of education (teachers of accounting education), show that IFRS adoption by African countries will boost the flow of FDIs by increasing comparability. Improving regulatory quality will further strengthen the effect of IFRS adoption on the flow of FDI as it also enhances transparency.

Key words: Foreign Direct Investments; International Financial Reporting Standards; Information Asymmetry; Education Managers, Africa

Introduction
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. This was awake up call, which tends towards global economic integration and 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, while limiting their ownership in the others. Such liberation was also witnessed in Ghana, Kenya, Uganda and Tanzania (Akinlo, 2004).
Despite these adjustments, as shown in Figure **1**, Africa is yet to become a preferred destination for foreign direct investments. Many Africa-bound foreign direct investments are in the extractive industries, with its limited linkages to the larger economy. This has led to the supply side of many sectors of African economies in deficit, and requiring injection of foreign direct investment to increase production and reduce inflation. Such investments would lead to economic growth, job creation and technology transfer. It is widely believed that Africa's record for political instability, mostly caused by bad governance, has been the

reason for her poor record of attracting foreign direct investments (Mlambo, 2005). This reputation is expected to reflect in the risk-perception of the continent by foreign investors and hence on their expected return on investments. Risk-perception can be affected by information and an improvement of the quality of financial information from Africa will likely make the continent more attractive to foreign investors. In this study, IFRS adoption is viewed as a way of reducing information asymmetries between foreign investors and local investors. Hence, it is expected to lower the investment risks perceived by foreign investors to Africa.

Many African countries had to make the transition from protectionism to market liberalization in the 1990s. This was done with the encouragement of foreign direct investment campaigners such as the World Bank, which has particularly encouraged emerging markets to engage in reforms that would among other benefits, make them attractive to foreign direct investments as a means of stimulating their economies. This involved opening up the market to competition and improved efficiency.

These market liberalization measures were meant attract multinational corporations to invest and foster economic growth. The main aim of this study is to examine the adoption of the IFRS as a significant factor of foreign direct investments to African countries. Accounting standards, and by extension its effect on the quality of financial information, are viewed as integral part of a country's institutional infrastructure and as a "soft" infrastructure as it constitutes one of the intangible, but vital part of a country's comparative and competitive advantage. The main hypothesis considered that the adoption of the IFRSs will encourage the flow of foreign direct investments (Montel and Reinhart, 2001).

Figure 1: FDI flows by region (2009 – 2011) - Billions of Dollars and Percent

Region	FDI inflows			FDI outflows		
	2009	2010	2011	2009	2010	2011
World	**1 197.8**	**1 309.0**	**1 524.4**	**1 175.1**	**1 451.4**	**1 694.4**
Developed economies	606.2	618.6	747.9	857.8	989.6	1 237.5
Developing economies	519.2	616.7	684.4	268.5	400.1	383.8
Africa	52.6	43.1	42.7	3.2	7.0	3.5
East and South-East Asia	206.6	294.1	335.5	176.6	243.0	239.9
South Asia	42.4	31.7	38.9	16.4	13.6	15.2
West Asia	66.3	58.2	48.7	17.9	16.4	25.4
Latin America and the Caribbean	149.4	187.4	217.0	54.3	119.9	99.7
Transition economies	72.4	73.8	92.2	48.8	61.6	73.1
Memorandum: percentage share in world FDI flows						
Developed economies	50.6	47.3	49.1	73.0	68.2	73.0
Developing economies	43.3	47.1	44.9	22.8	27.6	22.6
Africa	4.4	3.3	2.8	0.3	0.5	0.2
East and South-East Asia	17.2	22.5	22.0	15.0	16.7	14.2
South Asia	3.5	2.4	2.6	1.4	0.9	0.9
West Asia	5.5	4.4	3.2	1.5	1.1	1.5
Latin America and the Caribbean	12.5	14.3	14.2	4.6	8.3	5.9
Transition economies	6.0	5.6	6.0	4.2	4.2	4.3

Source: UNCTAD(2012)

Some global organizations such as the World Bank, the United Nations and the World Trade Organization (WTO) are campaigning for the removal of financial information barriers to the flow of global investments among different countries. In 2002, the European Union (EU) adopted a regulation that required all EU listed firms to adopt the IFRS by the beginning of 2005 (Alexander and Nobes, 2010). The move is considered a milestone in the quest to achieving global accounting convergence and with over 100 countries already adopted IFRS. With about 18 African countries having already adopted IFRS and many at various levels of adoption, the need to empirically evaluate any positive effect of IFRS adoption on the flow of foreign direct investments to the continent becomes imperative. A palpable positive effect on FDI flows by IFRS adoption will likely encourage more African countries towards IFRS adoption as a way of tackling the dearth of capital investment in the continent. Secondly, since Africa has been associated with wars and instability, which makes investing risky, any effort to improve on the quality of financial information from the continent would help foreign investors reduce their information processing costs and hence reduce information asymmetries. This would translate into an improved risk-return characteristic of African investments.

Therefore our study has two objectives:

1. To identify the relationship between IFRS adoption, which is expected to improve comparability of financial reports and hence reduce information costs, and FDI flows to African countries.
2. To identify the impact of regulatory incentives on the effect of IFRS adoption on the flows of FDI to African countries.

Foreign Direct Investments and Financial Information Asymmetries

Due to information costs, arising from information asymmetries, consumers mostly go for locally made goods and services and investors mostly go for local assets. Information asymmetries largely mirror historical, geographical, political, language and institutional barriers that exist amongst countries and by default, affect economic agents that operate within their borders. This has been a clog in the recent trend towards globalization in flow of capital, which would allow capital to freely flow to economies where it will be better rewarded based on the existing risk-reward characteristics. Portes and Rey (2005) found a geographical trend in transactions involving international assets and concluded that information needed to value financial assets is unequally and differentially available to investors in the market. This highlights the frictions in the global capital markets which are accentuated by familiarity effects and information asymmetries. Countries and even regions have unique information sets and these influence their attractiveness or otherwise to FDI.

There is evidence that deficiency in information supply, due to information asymmetries, is much more significant and important than opportunities for investment diversification that are offered by foreign markets. Therefore, familiarity with accounting practices will help reduce or remove information asymmetries and provide greater access to information needed to evaluate assets in different markets. This explains the poor performance of African countries as recipients of foreign direct investments (UNCTAD, 2012). Despite visible efforts at reforms, as many African countries are still considered risky and uncertain due to comparatively poor governance structures. Therefore, improving the transparency and comparability of financial reporting and making financial information from Africa more easily appreciated and understood globally will help boost the flow of capital, particularly foreign direct investments to the continent.

Accounting is a way of reporting or disclosing a company's position and results. Since most investment decisions taken involve economic agents, information asymmetries due to differences in accounting standards affect the flow of foreign investments, as they determine

investor's resource allocation when investing in a foreign country. Ahearne et al. (2004) studied the factors that determine US investors' holdings in foreign equities and pointed out the importance and significance of information barriers caused by differences in national financial reporting standards, regulatory environments and disclosure requirements. They established that information cost, an indirect barrier to foreign investments, is an important and significant determinant of the home bias phenomenon.

IFRS and flow of Foreign Direct Investments
Multinationals investing in emerging markets may benefit from incentives given by the emerging market government to attract their investment. Problems may manifest in form of information asymmetries, which may arise as a result of venturing into a new environment, or a differential effect of political risk. Private capital usually flows from developed economies to emerging economies, often referred to as "North-South" model. Shifts in FDI flows have led to "South-South" model, where emerging market firms invest in other emerging markets and "South-North" model, where emerging market firms are investing in developed economies. Foreign direct investors basically face the same challenges as the domestic investors and other additional problems which exposes them to a different cost of capital. Adopting IFRS is expected to reduce information asymmetry and reduce agency conflicts via improved external monitoring. Adoption of IFRS can also reduce the cost of capital, by increasing transparency and comparability (Barth 2008). These make company valuation easier for likely foreign investors and cause an increase in the valuation of the domestic firms due to reduction in risk premium.

A country can adopt IFRS in three different ways: convergence, wholesale or endorsement. On wholesale adoption, a country abandons her domestic GAAP for the IFRS without any amendments for variety of reasons such as lack of manpower, convenience or economic reasons. Countries such as Ghana and Kenya took this approach. In convergence adoption, the adopting country's local GAAP is cautiously converged to IFRSs. Countries such as India, China and the US favour this approach, in which case IFRSs are not promptly included in their accounting system. Areas of similarities are identified while divergent parts are gradually converged to the IFRSs. A typical case of endorsement is the case of the European Union. In this approach, IFRSs are carefully studied by the country or regional body prior to passage into law. This approach makes for flexibility in handling country or region-specific accounting issues with a consistent tailored solution, will lead to the country or region having a peculiar version of IFRS (Nnadi, 2011).

Studies have shown benefits in trade in goods and FDI flows on adoption of IFRS. Marquez-Ramos (2011) show that accounting convergence process across Europe was helping to reduce unfamiliarity and information asymmetries in financial information between firms from different countries, leading to reduction in information costs which stimulates the flow of foreign direct investments and international trade. The relevance of IFRS adoption in the developing economies of Africa has been an issue of debate. Chamisa (2000) found evidence that IFRS are relevant in Zimbabwe and other capitalist developing countries. In the same vein, Arnold and Sikka (2001), Madawaki (2012), show evidence of substantial harmful activities of accounting firms and their partners in developing countries. They concluded that a country's ability to regulate multinational enterprises is undermined relationships with capitalist interests, more than by globalization itself. These relationships will be further accentuated by a global accounting standard like IFRS.

Methodology
This study uses panel data from 1996 to 2011 on FDI flows, GDP (Gross Domestic Product), GDP per capita, Inflation, Special Drawing Rights Interest Rate (SDRINT), human capital

development, infrastructure, rule of law index, corruption perception index, and regulatory quality index, openness to trade and IFRS adoption in 45 African countries. Unbalanced panel data was used because of limitations in data availability. All values are denominated in US dollars at year-on-year exchange rates, for ease of analysis and comparability. Table 1 in the appendix shows the IFRS adoption status of 45 African countries.

Explanatory Variable
To study the effect of IFRS adoption on the flow of FDI, various determinants of FDI were controlled for using proxies and can be classified either as pull factors or push factors. Pull factors are endogenous to the African countries while push factors are exogenous to these countries.

Push and pull factors
Push factors, being external to these African countries are expected to be active in countries that fund or provide foreign direct investments to African countries. In this study, Special Drawing Rights Interest Rate (SDRINT), sourced from DataStream and published by the International Monetary Fund (IMF) was used as a proxy for push factors. Other similar push factors may include growth rates, international interest rates, industrial production indexes or Treasury bond rates. The effect of push factors may be positive or negative because of substitution or income effects (Levy-Yeyati et al., 2002). However, the expectation is that the coefficient of SDRINT 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:

Market Size- Gross Domestic Product (GDP)
The 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 from the regression. Total GDP figures used for this study were obtained from Euro monitor/IMF, International Financial Statistics (IFS).

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 Euro monitor/IMF, International Financial Statistics (IFS).

Macroeconomic Stability- Inflation
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 Euro monitor/IMF, International Financial Statistics (IFS).

Openness to Trade- (Import + Export)/GDP
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 this proxy is sourced from Euro monitor/IMF, International Financial Statistics (IFS).

Human Capital- Adult Literacy Rate
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 this were sourced from Euro monitor/UNESCO.

Infrastructure- Fixed telephone lines in use.
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, while also improving the standard of living. The expected coefficient from the regression results is expected to be positive and the data are sourced from Euro monitor/ International Telecommunications Union (ITU).

Regulatory Quality Index
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 index was sourced from Euro monitor and higher values reflect better governance.

Rule of Law Index
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 Euro monitor and higher values reflect better governance.

Corruption Perception Index
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 Euro monitor/ Transparency International and higher values reflect a cleaner and less corrupt society.

Time Effect
The time effect considers if the function being estimated has changed over time. Since the model was built with data from 1996 to 2011, dummy of 1 was used for period 2005 to 2011 and zero for other periods. The European Union's adoption of IFRS in 2005 made it a milestone in the history of IFRS adoption and accounting standards convergence.

Regression Data
The regression was done with unbalanced panel data, due to the unavailability of complete data on some countries. This is appropriate particularly if the data are uncorrelated with

idiosyncratic errors (Wooldridge, 2002). Table 3 below shows the summary statistics of the variables used for the panel data regression.

Table 3: Descriptive statistics result

Variables	Abbrev.	Obs.	Mean	Std. Dev.	Min.	Max.
FDI /GDP	Infdi_gdp	685	-3.736	1.366	-9.189	-0.101
Openness to trade	Inopenns	717	-0.638	0.519	-2.423	1.769
Infrasture	Ininfrast	720	4.447	1.736	0.693	9.380
GDP	Ingdp	720	8.584	1.586	4.289	12.920
GDP per capital	Ingdppc	720	6.643	1.143	4.458	10.070
Inflation	Inflation	706	7.339	7.913	-33.2	48.5
Human capital	Humcap	715	62.351	20.505	7.8	94.5
SDRINT	Sdrint	720	2.696	1.388	0.290	4.440
Rule of law	Rlaw	720	-0.629	0.676	-2.2	1
Corruption perception	Corr_perc	466	3.049	1.090	0.7	6.4
Regulatory quality	Reg_qtyi	720	-0.591	0.592	-2.4	0.9
IFRS adoption	Ifrsadopt	720	0.164	0.370	0	1
Time effect	Time_eff	720	0.438	0.496	0	1
Regulatory quality index	Reg_qtyiift	720	-0.052	0.311	-2.3	0.9

Hypotheses and Development of model

The panel data regression was done in three stages. In the first stage FDI/GDP was regressed on GDP, GDP per capita, inflation, openness to trade, Special Drawing Rights Interest Rate, human capital and infrastructure. The coefficients were checked for statistical significance and compared with the underlying assumptions. In the second stage, institutional variables were introduced and these are rule of law, regulatory quality index and corruption perception index. The statistical significance was also compared with underlying assumptions. At the third stage; the time effect and the IFRS dummy were introduced. The statistical significance and signs were noted, with those of IFRS dummy and the interaction variable between IFRS dummy and regulatory quality index as used in the test of the two research hypotheses.

Hypothesis 1: *IFRS adoption promotes the flow of FDI to African countries as it enhances comparability, hence lowering information costs.*

Financial reporting deals with the preparation and disclosure of a companies' financial position and results, hence convergence of accounting reporting standards globally is expected to enhance comparability effect. With globalization, 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. Marquez-Ramos (2011) finds that the reduction of information cost among European countries due to their adoption of IFRS to have enhanced the flows of trade and FDI amongst them. Hence, hypothesis 1 tends to test similar effect in African countries.

Hypothesis 2: T*ransparency effect strengthens the comparability of IFRS adoption in African countries, lowers information costs and promotes the flow of foreign direct investments.*

The transparency effect is expected to further reduce information asymmetries and hence promote the flow of foreign direct investment, prompting that regulatory incentives can

determine the degree of compliance by African firms to the IFRSs even after a possible mandatory adoption by a country.

Christensen et al. (2008) studied the effects of incentives on changes in financial reporting quality on the adoption of IFRS and found that adopting IFRS on its own does not improve accounting quality. Studying timely recognition of losses and earnings management, which are used to measure accounting reporting quality, they found that improvements in accounting quality was related to the level of incentives the preparer has to present quality accounting statements. The incentives may be regulatory or market forces, hence institutional quality effect on adoption of IFRS, are expected to differentially improve transparency or quality of financial reporting and exert a positive effect on the flow of FDI to African countries. Amiram (2009) concludes that countries with less corruption and more investor protections receive more increase in the flow of foreign equity investments on adoption of IFRS than others.

The base model, Equation 1, involves the common FDI determinants: GDP, GDP per capita, Inflation, Infrastructure, and Openness to Trade, Human Capital Development and Global Interest Rate.

$$Ln \frac{(FDI)_{it}}{GDP} = \beta_0 + \beta_1 LnGDP_{it} + \beta_2 LnGDPPC_{it} + \beta_3 LnInflation_{it} + \beta_4 LnInfrasture_{it} + \beta_5 LnOpenns_{it} + \beta_6 Humancap_{it} + \beta_7 SDRINT_{it} + \varepsilon_{it} \quad\text{...} 1$$

For Equation 2, institutional quality variables such as: rule of law, corruption perception and regulatory quality indices are added. These additional variables seek to measure the

$$Ln \frac{(FDI)_{it}}{GDP} = \beta_0 + \beta_1 LnGDP_{it} + \beta_2 LnGDPPC_{it} + \beta_3 LnInflation_{it} + \beta_4 LnInfrasture_{it} + \beta_5 LnOpenns_{it} + \beta_6 Humancap_{it} + \beta_7 SDRINT_{it} + \beta_8 Rlaw_{it} + \beta_9 Corr\_perc_{it} + \beta_{10} Reg\_qtyI_{it} + \varepsilon_{it} \quad\text{...} 2$$

For Equation 3, IFRS adoption and Time Effect dummy variables are included.

$$Ln \frac{(FDI)_{it}}{GDP} = \beta_0 + \beta_1 LnGDP_{it} + \beta_2 LnGDPPC_{it} + \beta_3 LnInflation_{it} + \beta_4 LnInfrasture_{it} + \beta_5 LnOpenns_{it} + \beta_6 Humancap_{it} + \beta_7 SDRINT_{it} + \beta_8 Rlaw_{it} + \beta_9 Corr\_perc_{it} + \beta_{10} Reg\_qtyI_{it} + \beta_{11} Ifrsadopt_{it} + \beta_{12} Time\_eff_{it} + \varepsilon_{it} \quad\text{...............................} 3$$

For Equation 4, lagged FDI/GDP and the interaction variable (between IFRS adoption and Regulatory Quality Index) were added.

$$Ln \frac{(FDI)_{it}}{GDP} = \beta_0 + \beta_1 LnGDP_{it} + \beta_2 LnGDPPC_{it} + \beta_3 LnInflation_{it} + \beta_4 LnInfrasture_{it} + \beta_5 LnOpenns_{it} + \beta_6 Humancap_{it} + \beta_7 SDRINT_{it} + \beta_8 Rlaw_{it} + \beta_9 Corr\_perc_{it} + \beta_{10} Reg\_qtyI_{it} + \beta_{11} Ifrsadopt_{it} + \beta_{12} Time\_eff_{it} + \beta_{13} Ln(FDI/GDP)_{i(t-1)} \beta_{14} Ifrsadopt + \beta_{15} Reg\_qtyI + \varepsilon_{it} \quad\text{...............................} 4$$

Where I = African countries and $t = 1, 2 \ldots n$ time periods.

The results of the base regression from STATA shown in Table 4 indicate from the p-value of the F-test significance at 1 percent and R square of 26.55%, which suggests model adequacy. GDP and Openness to trade are with the expected positive coefficients and are statistically significant at 1 percent in line with earlier propositions. Inflation, human capital development and global interest rates are statistically insignificant while GDP per capita and infrastructure are significant at 1 percent and 5 percent respectively, but with unexpectedly negative coefficients.

Table 4: Result of Regression 1

Variables	Coeff.	Std. Error	t	Sig.
LnGDP	4.129	0.774	5.34	0.000***
LnGDP per capital	-4.474	0.842	-5.31	0.000***
Inflation	-0.006	0.006	-0.99	0.320
LnInfrasture	-0.307	0.113	-2.73	0.007**
LnOpenness to trade	1.18	0.177	6.67	0.000***
Human capital	0.012	0.014	0.86	0.389
SDRINT	0.061	0.033	1.82	0.069
Constant	-8.219	1.027	-8.01	0.000***

F(7,617) =31.86
Prob>F =0.000
R.sq: = 0.2655
*significance at 0.1 level; **significance at 0.05 level; ***significance at 0.01 level

Regression 2
Table 5 shows the results of the second regression with rule of law, corruption perception and regulatory quality variables added to the base regression. These three variables are the institutional variables and any improvement in them is expected to positively affect FDI/GDP. The p-value of the F-test indicates significance at 1 percent level, thus suggesting model adequacy. Regulatory quality and openness to trade have the expected positive coefficient and are each significant at 1 percent. GDP, inflation, infrastructure, human capital development, corruption perception, global interest rates and GDP per capita are statistically insignificant. Rule of law is significant at 5 percent but with an unexpected negative coefficient.

Table 5: Results of Regression 2

Variables	Coeff.	Std. Error	T	Sig.
LnGDP	2.335	1.264	1.85	0.065
LnGDP per capital	-2.31	1.415	-1.63	0.103
Inflation	-0.004	0.006	-0.64	0.524
LnInfrasture	0.004	0.144	0.3	0.762
LnOpenness to trade	0.915	0.265	3.45	0.001***
Human capital	-0.011	0.02	-0.56	0.576
SDRINT	0.058	0.032	1.81	0.071
Rule of law	-0.645	0.276	-2.34	0.020**
Corruption perception	-0.029	0.107	-0.27	0.785
Reg. Quality	0.815	0.256	3.18	0.002***
Constant	-8.025	1.742	-4.61	0.000***

F(10,391) =6.58
Prob>F =0.000
R.sq: = 0.1440
*significance at 0.1 level; **significance at 0.05 level; ***significance at 0.01 level

Regression 3
Accounting standards are considered as part of a country's institutional infrastructure and adopting IFRS as a means of increasing comparability and hence reducing information asymmetries. The p-value of the F-test indicates significance at 1 percent level, which

suggests model adequacy. From the results in Table 4, IFRS adoption dummy, regulatory quality, openness to trade and time effect have positive coefficients as expected and are statistically significant at 5 percent, 1 percent, 5 percent and 10 percent respectively. However, GDP, GDP per capita, inflation, infrastructure, human capital development, global interest rates and corruption perception are all statistically insignificant, while rule of law is significant at 10 percent but with an unexpected negative coefficient.

Table 6: Results of Regression 3

Variables	Coeff.	Std. Error	T	Sig.
LnGDP	1.548	1.263	1.23	0.221
LnGDP per capital	-1.901	1.395	-1.36	0.174
Inflation	-0.005	0.006	-0.74	0.462
LnInfrasture	0.046	0.143	0.33	0.745
LnOpenness to trade	0.647	0.271	2.38	0.018**
Human capital	-0.027	0.02	-1.36	0.175
SDRINT	0.017	0.035	0.5	0.617
Rule of law	-0.545	0.276	-1.98	0.049*
Corruption perception	0.028	0.106	0.26	0.794
Reg. Quality	0.81	0.253	3.2	0.001***
IFRS adoption	0.386	0.139	2.77	0.006**
Time effect	0.363	0.157	2.31	0.021**
Constant	-3.121	2.271	-1.37	0.170

F(12,389) =7.01
Prob>F =0.000
R.sq: = 0.1777

*significance at 0.1 level; **significance at 0.05 level; ***significance at 0.01 level

Discussions of Results

The results from STATA shown in Table 5 indicate that Openness to trade, the interaction variable and the lagged dependent variable have expected positive coefficients and statistically significant at 1 percent each. IFRS adoption has expected positive coefficient and significant at 5 percent while inflation has the expected negative coefficient and is significant at 10 percent. All things being equal, increasing openness to trade by 1 percent will increase the flow of FDI/GDP by 0.9 percent.

This highlights the need for Africa to further open up her economy particularly to trade-related FDI for competition and efficiency. Increasing inflation by 1 lowers FDI/GDP by 1.2 percent which implies that a more macro economically stable Africa would attract more FDI. A 1 percent increase in lagged FDI/GDP predicts a 0.28 percent increase in FDI/GDP. This implies the extent to which a previous year's FDI/GDP flow can be used to predict a current year's flow. IFRS adoption increases FDI/GDP flow by 32.22 percent while increasing the interaction variable by 1, increases FDI/GDP by 65.43 percent. African countries may adopt IFRS to improve on their regulatory quality to receive more FDI inflows. Regulatory quality is not statistically significant on its own, so all things being equal, its effect on FDI flows depend on the adoption of IFRS.

GDP, GDP per capita, infrastructure, human capital development, global interest rates, corruption perception, regulatory quality, and time effect are statistically insignificant. The insignificance of GDP may be due to the prevalence of resource-seeking FDI flows to Africa which are determined by the availability of raw materials, particularly mineral resources and not by market size. The result of the GDP per capita may be affected by the population

growth and size, which are dominant factors in the flow of FDIs as most Africans have little discretionary income. This implies that most FDI flows, particularly market-seeking FDIs, are in the essential products and services sector like food and shelter, and not in the luxury sectors where GDP per capita will drive demand (Aghanya,2008). Infrastructure also is statistically insignificant.

The proxy used for infrastructure is the number of fixed telephone lines per thousand of population and with the current boom in the mobile telephony, many African countries like Nigeria, Ghana, Kenya, Cameroun have witnessed a decline in the number of fixed telephone lines, while witnessing an astronomical growth in the mobile telephony sub-sector. The statistical insignificance may be because most telecommunications FDIs to Africa have been in the mobile sub-sector, with the fixed line sub-sector on the decline. Also 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.

Human capital development is statistically insignificant, which is possibly because raw materials are exported for value addition to the developed countries. Also most of the important and higher remunerated extraction processes are still done with foreign labour (Wadhwa and Sudhakara, 2011); hence the FDI flows have no linkage with the level of human development in Africa.

Hypothesis 1

IFRS adoption promotes the flow of FDI to African countries as it enhances comparability, hence lowering information costs.

From the results in table 5, the null hypothesis that IFRS adoption does not promote the flow of FDI to African countries is rejected. IFRS adoption leads to a 32.22 percent increase in the flow of FDI/GDP to African nations, all things being equal, and is in line with the findings of Marquez-Ramos (2011) for European countries after IFRS adoption. Amiram (2009) also found that foreign investors hold more economical foreign equities in firms from countries that have adopted IFRS. The link is stronger for foreign investors, whose home countries have already adopted IFRS suggesting that a familiar financial reporting standard is a significant determinant in the flow of foreign direct investments. Hence, the performance of African countries in attracting FDI can be enhanced through adoption of IFRS, possibly at a continental level like Europe.

Hypothesis 2

Transparency strengthens the comparability of IFRS adoption in African countries, lowers information costs and promotes the flow of foreign direct investments.

The null hypothesis that transparency in African countries does not strengthen comparability is rejected from the results in Table 5. Increasing the regulatory quality index by 1 further increases the effect of IFRS adoption on the flow of FDI/GDP by 65.43 percent, all things being equal. Such positive effect leans support to previous studies (Christensen et al., 2008); impact of reporting incentives on accounting quality with IFRS adoption (Amiram, 2009), on the effects of reducing corruption and more investor protection on the flow of foreign equity investments to countries after IFRS adoption and Marquez-Ramos (2011) on the transparency effect further increasing in familiarity in financial reporting needed for increased market efficiency.

These findings suggest that the effects of IFRS adoption on accounting quality and on the flow of FDI/GDP is strengthened by the level of incentives the preparers have in presenting quality accounting statements. The incentives in this case is regulatory, hence, improving on regulatory quality in African countries that have adopted IFRS would further increase the effect of IFRS adoption on the flow of FDI/GDP .Therefore, the comparability effect in the

presence of the transparency further reduces information asymmetries and further promotes the flow of FDI. This implies that regulatory quality can determine the degree of compliance by companies to the IFRSs even after a possible mandatory adoption by a country.

Conclusions

The study reveals the positive effects of IFRS adoption on FDI flows to African countries. It also reveals that the regulatory quality to a very large extent determines the quality of reporting, further lowering information barriers after IFRS adoption and increasing the flow of FDIs to Africa. Accounting education curricula reviewers would find this very important.

Several economic policies and reforms in several African countries aimed at attracting foreign direct investments are yet to yield the expected rewards, and many attribute this to Africa's history of political instability. Some previous studies have identified information asymmetries as one of the major barriers to the flow of trade and foreign direct investments which have been confirmed by the result of our study. Thus, lowering financial information barriers between different countries will reduce information asymmetries between Africa economies and foreign investors and hence reduce investment risks for foreign investors. This is one point that accounting teachers must take note of.

Countries in Africa would benefit more by working towards an improved management of information on the continent, particularly political and financial information. Regional integration which would promote intra-African trade and investments should be promoted. It is known that many African countries have very little economic linkages amongst themselves and regional integration will help build the critical mass needed to attract high FDIs, particularly market-seeking FDIs. Apart from larger market sizes, regional integration can also lead to the joint development of regional infrastructure which is critical to regional development. Strengthening regional bodies like the African Union, ECOWAS and SADC would help promote good governance by encouraging healthy peer-review mechanism.

References

Aghanya, D. (2008), *Foreign Direct Investment Determinants in Emerging Markets: A Study of Africa* (Unpublished Msc thesis), Cranfield University, Cranfield.

Ahearne, A.G.; Griever, W.L. and Warnock, F.E. (2004), "Information Costs and Home Bias: An Analysis of U.S. Holdings of Foreign Equities", *Journal of International Economics,* Vol. 62, No. 2, p. 313-336.

Akinlo, A. E. (2004), "Foreign direct investment and growth in Nigeria: An empirical investigation", *Journal of Policy Modeling*, Vol. 24, p. 627-639.

Alexander, D. and Nobes, C. (2010), *Financial Accounting: An International Introduction* (4th ed), Prentice Hall, Harlow, England.

Amiram, D. (2009), "Financial Information Globalization and Foreign Investment Decisions", *Working Paper*, available at http://ssrn.com/abstract=1446522/ (accessed 9th August 2012)

Arnold, P.J. and Sikka, P. (2001), "Globalization and the state-profession relationship: the case of the bank of credit and commerce international", *Accounting, Organizations and Society*, Vol. 26, p. 475-499.

Barth, M. E. (2008), "Global Financial Reporting: Implications for U.S. Academics", *The Accounting Review,* Vol. 83, No.5, p. 1159–1179.

Christensen, H. B.; Lee, E. and Walker, M. (2008), "Incentives or Standards: What Determines Accounting Quality Changes Around IFRS Adoption?" *AAA 2008 Financial Accounting and Reporting Section (FARS)* paper, available at http://ssrn.com/abstract=1013054/ (accessed 9th August 2012)

Chamisa, E.E. (2000),"The relevance and Observance of the IASC Standards in Developing

Countries and the Particular Case of Zimbabwe", *The International Journal of Accounting,* Vol. 35, No. 2, pp. 267-286.

European Commission. 2010. "Accounting: Legal Framework", available at http://ec.europa.eu/internal_market/accounting/legal_framework/index_en.htm (accessed 13th August 13, 2012).

Levy-Yeyati, E., Panizza, U. and Stein, E. (2002), "The Cyclical Nature of North-South FDI Flows", *IADB Working Paper*, No. 479.

Madawaki, A. (2012), "Adoption of International Financial Reporting Standards in Developing Countries: The Case of Nigeria", *International Journal of Business and Management,* Vol. 7, No. 3, February.

Marquez-Ramos, L. (2011), "European accounting harmonization: consequences of IFRS adoption on trade in goods and foreign direct investments", *Emerging markets finance and trade,* September-October 2011, Vol. 47, Supplement No. 4, pp. 42-57.

Mlambo, K. (2005), "Reviving Foreign Direct Investments in Southern Africa: Constraints and Policies", *African Development Review.* Vol. 17, Issue 3, p. 552-579.

Montel, P. and Reinhart, C.M., (2001), *The Dynamics of Capital Movements to Emerging Economies During the 1990s* in short-term Capital Movement Economic Crises, Griffith-Jones, S. And Montes, M. (Oxford: Oxford University Press.)

Nnadi, M. (2011), "IFRS Adoption and Financial Results of EU Companies: The Challenge of Nomenclature- Evidence from the UK, France and Germany", *Working Paper Series*, available at http://ssrn.com/abstract=1779506.

Portes, R. and Rey, H. (2005), "The Determinants of Cross-Border Equity Flows", *Journal of International Economics*, Vol. 65, No. 2, 269-296.

United Nations Conference on Trade and Development (UNCTAD) (2012), "World Investment Report", *United Nations*, Geneva. Pp. 4 – 5.

Wadhwa, K. and Sudhakara, R. S. (2011),"Foreign Direct Investment into Developing Asian Countries: The Role of Market Seeking, Resource Seeking and Efficiency Seeking Factors", *International Journal of Business and Management*, Vol. 6, No. 11. November.

Wooldridge, J.M. (2002), *Econometric analysis of Cross Section and Panel Data,* MIT Press, Cambridge.

Table 1: List of African countries and IFRS adoption status

Country id	Country	IFRS Adopted?
100	Algeria	No
101	Angola	No
102	Benin	No
103	Botswana	Yes
104	Burundi	No
105	Burkina Faso	No
106	Cameroun	No
107	Cape Verde	No
108	Central African Republic	No
109	Chad	No
110	Cote d'Ivoire	No
111	Congo Democratic Republic	No
112	Egypt	Yes
113	Equatorial Guinea	No
114	Gambia	No
115	Gabon	No
116	Ghana	Yes
117	Guinea-Bissau	No
118	Lesotho	Yes
119	Kenya	Yes
120	Liberia	No
121	Madagascar	No
122	Mauritania	No
123	Malawi	Yes
124	Mauritius	Yes
125	Morocco	Yes
126	Mali	No
127	Mozambique	Yes
128	Namibia	Yes
129	Nigeria	Yes
130	Niger	No
131	Rwanda	No
132	Republic of Congo	No
133	Sao Tome & Principe	No
134	Senegal	No
135	South Africa	Yes
136	Sierra Leone	Yes
137	Seychelles	No
138	Tunisia	No
139	Tanzania	Yes
140	Togo	No

141	Uganda	Yes
142	Zambia	Yes
143	Zimbabwe	Yes
144	Guinea	No

Sources: www.pwc.com; www.iasplus.com;www.adoptifrs.org