

Foreing Direct Investment in Sub-Saharan Africa (SSA): An Opportunity for New Developed Countries (NDC)

(Recibido: 06/junio/2014 –Aceptado: 10/marzo/2015)

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Summary

This paper examines new developed Countries' (NDC) investment opportunities in SSA. We used panel data regression model to estimate the parameters on 18 SSA countries from 2000 to 2012. Data are collected from WDI and ADI data base (2013) CD-ROMS. We reached the conclusion that variables such as market size, inflation, taxes and wages significantly affect FDI attraction in SSA countries; furthermore, corruption, countries openness, and infrastructure development could not be seen as factors that absolutely impede on countries ability to attract FDI. We propose that SSA countries' monetary authorities should review their exchange rate system in order to be able to have more control over inflation.

JEL Classification: F2, F210.

Key words: foreign direct investment, opportunity, the SSA zone, NDC.

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Introduction

After the Second World War, the world witnessed a geo-strategic change in economic relation, with USA becoming an undisputable giant in the world economic landscape bypassing the leadership of the European countries. Thus with time the world economic map started to change shape, and nations decided to strengthen the rules that would enhance and guide the new scheme of international trade. The GATT¹ and the WTO² progressively gave place to OECD³ to promote policies to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy; to contribute to sound economic expansion in member as well as non-member countries in the process of economic development; and to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations (OECD 2003).

Today things seem to be on a rolling stone, with global business climate changes, to rebuild a new world economic map, with new acronyms like MIST,⁴ BRIC,⁵ challenging the OECD status quo. Thus we see that Africa is on the focus of all economic debates. Brazil, Russia, India and China (BRIC) and Mexico, Indonesia, South Korea and Turkey (MIST) have literally invaded the African continent, by focusing on investment opportunities in Africa, thereby invading the continent with money, goods, ideas, drilling and mining equipment; in other to benefit from the gigantic business opportunities that Africa abounds today. Largely absent few years ago in SSA, BRICs and MIST are now slowly but surely edging out Western countries in Africa in the areas of trade and investment, and to some degree development aid. India and China in particular, and to some extent Brazil, have increased their engagement in Africa in rather dramatic ways. bric countries are now becoming major players in the continent, which has not only changed Africa's traditional trade and investment relations but also created significant opportunities and challenges for Africa's economies. In this paper, we are to focus on FDI opportunities in Africa, taking into consideration, economics growth rate, political and macroeconomic stability, strong infrastructure, good governance, hospitable regulatory environments

¹ General agreement on tariffs and trade.

² World trade organisation.

³ Organisation for Economic Co-operation and Development

⁴ Mexico Indonesia, South Korea and Turkey.

⁵ Brazil, Russia, India and China.

in Africa during the last decade while making a projection in the coming decade to assets the place of Africa in the economic challenges that faces the world economy for the next generation. This paper stresses on the need for more trade and investment relations between Africa and New Developed Countries;⁶ it also argues that countries in the sub-Sahara region should pay more attention to the improvement of relations with existing investors and offers them incentives to assist in marketing domestic investment opportunities to potential foreign investors. Finally, the paper argues that the current wave of globalization sweeping through the world has intensified the competition for FDI among developing countries. Consequently, concerted efforts are needed at the national, regional, and international levels in order to attract significant investment flows to Africa and improve the prospects for sustained growth and development.

Answering the central question will guide us to give some recommendation to Investors on the challenges, and benefits to invest or not in Africa in the coming years. Why invest in SSA zone is an opportunity to New Developed Countries? The purpose of this paper is to show FDI opportunities in SSA Zone through factors like economics growth rate, political and macroeconomic stability, strong infrastructure, good governance, hospitable regulatory environments to Emerging countries.

1. Literature review

In this section we are going to highlight on the literature, such that the reader will have knowledge of the most prominent work done by other authors who expressed their thoughts on related topics. The review of the literature is subdivided into theoretical and empirical review. The former focusing on the economic theory related to FDI and its impact on economic growth and the latter will be about various authors who had studied the topic related to emerging economies FDI opportunities.

A. Theoretical Background

A popular conceptualization of, and theoretical framework for, FDI determinants is the “eclectic paradigm” attributed to Dunning (1977, 1993). It provides a framework that group micro and macro-level determinants in order to analyse why and where multinational corporations (MNCs) invest abroad. The framework posits that firms

⁶ NDC means New Developed Countries. In fact it is a group of countries that offer exceptional potential for the next decade. We refer to this term in this paper instead of emerging countries They are BRIC (Brazil, Russia, India, & China) and MIST (Mexico, Indonesia, South Korea & Turkey) created by Jim O’Neill the former Goldman Sachs economist.

invest abroad to look for three types of advantages: Ownership (O), Location (L), and Internalization (I) advantages; hence it is called the OLI framework. The delocalization of all or a portion of the production process of a company (vertical FDI) had pushed many authors namely Sekkat *et al.* (2007), Pantelidis *et al.* (2008) and most recently Kinda (2010) to conclude that vertical FDI leads to low costs benefits. Before these authors, Dunning (1993) identified four categories of motives for FDI: resource seeking (to access raw materials, labour force, and physical infrastructure resources), market seeking (horizontal strategy to access the host-country domestic market), efficiency seeking (vertical strategy to take advantage of lower labour costs, especially in developing countries), and strategic-asset seeking (to access research and development, innovation, and advanced technology).

Fedderke *et al.* (2006) also contributed to the literature when arguing on the forces driving FDI. They noticed that there exist both policy and non-policy factors as drivers of FDI. According to them policy factors include openness, product-market regulation, labour market arrangements, corporate tax rates, direct FDI restrictions, trade barriers, and infrastructure; while non-policy factors include market size of the host country (often measured by the GDP), distance/transport costs, factor proportions (or factor endowments) and political and economic stability.

Other authors such as Fernandez-Arias *et al.* (1996) and Gottschalk (2001) focused on domestics factors (pull factors) that determine the ability of countries to attract FDI. According to their findings, the pull factors include economic, socio-political and structural conditions, and to some extent uncertainty.

Fernandez-Arias (1996), Fernandez-Arias *et al.* (1996), Gottschalk (2001) and Calvo *et al.* (1996) presented a two-factor classification of the factors that influence FDI flows: as “push” (those that are external to the recipients of FDI - relating to cyclical and structural conditions, irreversibility and herding) or “pull” factors (those internal to them such as economic, socio-political and structural conditions, including uncertainty). A similar classification has emerged from the works of Tsai (1991), Ning *et al.* (1995) and Lall *et al.* (2003); who see these factors in two perspectives: the first being the “supply-side” (e.g., skilled labour, research and development, and infrastructure), and the next being on the “demand-side” (host country economic and social variables or pull factors, including interest rates, tax and tariff levels, market size and potential, wage rates, income distribution, human capital, cost differentials, exchange rates, fiscal policies, trade policies, physical and cultural distance, among others).

Kara kaplan *et al.* (2005), followed by introducing a third perspective called the “institutional factors” (e.g., culture, intellectual property rights, transaction costs, political risk, corruption, and bureaucracy).

Sekkat *et al.* (2007) grouped the factors determining the inward flow of FDI into three categories: basic economic factors, trade and the exchange market policies, and other aspects of the investment climate. The basic economic factors include the difference in the rate of return on capital across countries, portfolio diversification strategy of investors and market size of the host country. Trade and foreign exchange policy considerations relate to trade liberalisation and exchange rate movements and their volatility (Froot *et al.* 1991).

A. Review of recent empirical literature

We organised recent empirical literature on the factors that make FDI go where they do around key factors as shown below, though in many cases results revolve around multiple factors.

i. Market size and Natural resources

Asiedu (2006) utilises panel data for 22 SSA over the period 1984-2000 to investigate the influence of natural resources and market size *vis-à-vis* government policy, host country's institutions and political instability in directing FDI flows to the region. The results suggested that countries in SSA that are endowed with natural resources or have large markets will attract more FDI. However, small countries and/or countries that lack natural resources in the region can also obtain FDI by improving their institutions and policy environment, because good infrastructure, educated labour force, macroeconomic stability, openness to FDI, efficient legal system, less corruption and political stability also promote FDI.

In light of these findings, Asiedu stresses on the importance of regional blocs such as the Southern African Development Community (SADC) in enhancing FDI flows to the region. In addition to expanding the size of the market, he proposed that regionalism could be used as a tool to promote political stability by restricting membership to countries with democratic political systems, as well as provide incentives for member countries to implement good policies through the threat of sanctions or the loss of access to the bloc for errant countries.

Bende-Nabende (2002) aimed at providing an empirical assessment on the macro locational determinants of FDI in SSA through the assessment of co-integration or rather long-run relationships between FDI and its determinants. The study was done on 19 SSA countries over the period of 1970 to 2000 where the author employed panel data analyses techniques. The empirical evidence suggests that the most dominant long-run determinants of FDI in SSA are market growth, a less restrictive

export-orientation strategy and the FDI policy liberalisation. These are followed by real effective exchange rates and market size. Bottom on the list is the openness of the economy. Thus, as far as SSA countries are concerned, their long-run FDI positions can be improved by improving their macroeconomic management, liberalizing their FDI regimes and broadening their export bases.

According to Morisset (2000) and Asiedu (2006), the common perception among many observers is that FDI in African countries is largely driven by their natural resources and the size of their local markets. In an econometric study on 29 SSA countries for the period 1990 to 1997, Morisset (2000) found that both market size and natural resources availability have a positive influence on FDI inflows, with an elasticity of 0.91 and 0.92 using panel data and 1.4 and 1.2 using cross-section data, respectively. Panel regressions presented in Asiedu (2006) for 22 SSA countries over the period 1984 to 2000 showed that a standard deviation of one increase in the natural resource variable results in a 0.65 per cent increase in the ratio of FDI to GDP and a standard deviation of one increase in the market size variable results in a 2.61 percent increase in FDI/GDP.

ii. State of infrastructure:

Studies by Musila *et al.* (2006) and Dupasquier *et al.* (2006); on FDI showed that FDI in Africa is dependent on the development of infrastructure. Also other studies on developing countries (Mengistu *et al.*, 2007; Cotton *et al.*, 2001); emerging economies (Zhang, 2001); Western Balkan Countries (Skabic *et al.*, 2007) and Southeast European Countries (Botric *et al.*, 2006) showed the significant role of infrastructure development in attracting the inflow of FDI. However, the results of a study on U.S. FDI flow to Africa by Nnadozie *et al.* (2004) find less robust evidence on the role of infrastructure on foreign direct investment.

Gholami *et al.* (2006) used a sample of 23 developed and developing countries observed for the period of 1976 to 1999 based on ICT (Information and Communication Technologies) data availability to show that in developed countries, existing ICT infrastructure attracts FDI; a higher level of ICT investment leads to a higher level of FDI inflows but in developing countries the direction of causality goes instead from FDI to ICT. Findings by Sekkat *et al.* (2007) indicated that infrastructure availability, openness, and sound economic and political conditions were important for South Asia, Africa, and the Middle East in attracting FDI. In a study of South East European Countries (SEECs), Dauti (2008) identified ICT infrastructure market as the major factor positively influencing FDI inflows while seeking factors (GDP growth, GDP per capita, GDP level) have perverse signs, showing significantly negative effects on FDI inflows.

iii. Openness

There are two opposing views linking openness of the economy to FDI flows: The “tariff-hopping” and “The open economy”

The “tariff-hopping”/“tariff-jumping” hypothesis posits that high protective barriers stimulates direct investment in the host country as opposed to continuing to service it through exports, because of potential marketing cost savings and transport cost reductions (Krugell, 2005). On the other hand, the more open the economy, the more it would attract the FDI from Multinational Corporations (MNCs) seen as different affiliates specializing according to the locational advantages of the host country (Blomstrom *et al.*, 1997).

The importance of the latter is well documented in the empirical literature on the determinants of FDI to Africa (Bhattacharya *et al.*, 1997; Morisset, 2000; Asiedu, 2002a, 2002b; Nabende, 2002; Lemi *et al.*, 2003; Onyeiwu *et al.*, 2004; Yasin, 2005; Dupasquier *et al.*, 2006; Fedderke *et al.*, 2006).

iv. Cost of labour

Cheap labour and the quality of the labour force are other important determinants of FDI. Lower labour cost reduces the cost of production, all other factors remaining unchanged (Krugell, 2005). However, rather than just low wages, it is important that wages reflect productivity (Krugell, 2005). It is generally believed that highly educated personnel are able to learn and adopt new technologies faster, and the cost of retraining is also less (Pigato, 2001). Thus, countries with a large supply of cheap but skilled human capital attract more FDI. Lemi *et al.* (2003) and Yasin (2005) found that the availability of an abundant and cheap labour force has the expected positive effects on FDI to Africa. Odenthal, 2001 found that expected positive cheap labour force might not be a sole factor, the success in attracting FDI in Mauritius; he proposed that well trained workforce should also be taken into consideration. In the same vein, Fedderke *et al.* (2006) show that wage costs impact negatively on FDI to South Africa. In addition, Lemi *et al.* (2003) and Asiedu (2006) also found evidence for the important role played by an educated labour force in attracting FDI flows to Africa. However, the lack of middle or senior level entrepreneurial experience has increased the existing skills gap in Africa, and many foreign companies have resorted to employment of expatriate managers (Bhinda *et al.*, 1999). On the other hand, Bende-Nabende (2002) stated that no definite conclusions can be drawn about mean years of education and real wages rates, because some countries in the SSA sample did not have sufficient time-series data for both variables. Morisset (2000)

also found that the availability of relatively skilled labour do not appear to have been a major factor in the location decision of MNCs, advancing data shortcomings in most African countries as a possible cause.

v. Political risk/ Government policy

Lemi *et al.* (2003) found that government policy commitment as measured by the number of Bilateral Investment Treaties (BIT) signed by a host country and membership in Multilateral Investment Guarantee Agency (MIGA) play an important role in attracting US manufacturing firms to Africa. According to Morisset (2000), the adoption of international agreements related to FDI explains the recent improvements in the business climate of Mali and Mozambique. During the 1990s, both countries have become members of MIGA. Mali has also acceded to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards, while Mozambique has signed the International Convention on Settlement of Investment Disputes between States and National of Other States (ICSID) and becomes member of the Industrial Free Zone in 1994 and the World Intellectual Property Organization in 1996. Examples of other important instruments available for African government's commitment are the agreements in the WTO relating to FDI, such as the Trade Related Intellectual Property Rights (TRIPS) or Trade Related Investment Measures (TRIMS) Agreements, the Paris Convention for the Protection of Industrial Property and the Bilateral Treaties for the avoidance of Double Taxation (DTTs). Governments can promote FDI by establishing Investment Promotion Agencies (IPAs) that specifically concentrate on marketing activities and joining the World Association of Investment Promotion Agencies (WIPA) that offers training and capacity building opportunities to IPAs Morisset (2003). FDI promotion addresses a market failure related to imperfect information on investors' as well as on the host government's side and thus emphasizes countries attractiveness for foreign investors Wells *et al.* (1990).

vi. Tax, corruption, regulations

Asiedu (2003, 2006) found that an efficient legal framework promotes FDI to Africa, while corruption deters investment flows to the region. Dupasquier *et al.* (2006) argued that the lack of good legal and judiciary systems is a possible deterrent to FDI in Africa. The institution of the judiciary is critical to protecting property rights and improving property rights, in turn, was found to raise the attractiveness of South Africa as a location of FDI Fedderke *et al.* (2006). In many non-francophone

African countries, Te Velde (2001) found that freehold ownership is prohibited or requires explicit approval, which may involve long delays varying considerably across countries: up to two years in Mozambique, no freehold ownership in Namibia, up to three years in Tanzania, up to eight years in Kenya and up to six months in Uganda. Emery *et al.* (2000) concentrated on Africa, showing that administrative procedures and rules on ownership can form a significant barrier to FDI. Te Velde (2001) found that it takes one to two years to establish a business and become operational in Uganda and Ghana, 18 months to three years in Tanzania and Mozambique, six months to one year in Namibia, but only six months in Malaysia. In general, from the 1980s to 1990s the rate of improvements on institutional quality was lower for SSA countries as compared with other developing countries Asiedu (2004). FDI regulations that have liberalised restrictions have significantly contributed to the improvement of the investment climate UNCTAD (1998). They provide for non-discrimination between foreign and domestic private investors, allowed profit repatriation, protect against expropriation, grant incentives, strengthen the standards of treatment of foreign investors, and shift away from targeting specific sectors or foreign investors *idem*.

Bende-Nabende (2002) found that FDI liberalisation is among the most dominant long-run determinants of FDI in SSA. The results from Asiedu (2003) also indicated that a good investment framework promotes FDI to Africa, *i.e.* investment restrictions deter investment flows to Africa, Asiedu (2003). According to Basu *et al.* (2002), excessive market regulations, *i.e.* domestic investment policies on profit repatriation and on entry into some sectors of the economy were not conducive to the attraction of FDI in Africa. Ghana, for example, has expanded the scope for foreign investment by reducing the sectors previously closed to foreign investment, Basu *et al.* (2002).

In general, from the 1980s to the 1990s, the pace of liberalisation for SSA countries as measured by three types of indexes (capital controls; restrictions on trade and investments; FDI policy), was slow compared with others developing countries, Asiedu (2004).

In spite of the liberalisation of FDI policies, many argued that national fdi policies may not be enforceable and do not addressed what foreign investors sought in guaranteeing security and benefits Lemy, *et al.* (2003). Thus, countries are signatories to bilateral and multilateral investment and trade treaties to show their commitment and to ensure the protection of investment and avoid double-taxation, which will lastly make them more attractive for foreign investors UNCTAD (1998).

B. Methodology and Data

The model used in this study is computed from the Cobb Douglass classical production model. We have introduced the logarithm function to build our model. The data are computed on a cluster of 18 Sub-Saharan African (SSA) countries,⁷ from 2000 to 2012. The Panel Least Squares analysis is used to compute the parameters.

III.1. Data Collection and Method

The data are collected from the world development indicator (WDI, 2013) and Africa development indicator database (ADI, 2012) CD ROMs. We used the panel data analyses to estimate our variables for 18 Sub-Saharan African low and middle-income countries from 2000 to 2012. SSA are different in many ways, reason why, while computing our parameters, we set the panel least square model with fixed effect such that the intercepts of the estimated panel data parameters are different for each country. And we, also used the t-statistics and the p-value to determine the significance of the parameters.

III.2. Model Estimation

The panel data regression model used in this study is because we needed to compute data from 18 Sub-Saharan African countries within the same period from 2000 to 2012. Eleven years of data collection per country could not permit us to have a reliable estimate of our variable, so we use the panel data regression model to overcome the shortcomings of insufficient variables to obtain a reliable estimation of the variables. Panel data regression model has the advantages of taking heterogeneity explicitly into consideration by allowing for individual-specific variables, and in our study of 18 different countries' data, individual specificity of each country arise and we needed to wipe it out by using the panel data regression model. Since panel data is a time series of cross-section observations, it thus gives more informative data, more variability, and less collinearity among variables, associated with more degrees of freedom and more efficiency. More to that panel data regression model makes data available for several thousand units, therefore minimizing the bias that might result if we aggregate countries into broad aggregates Gujarati (2004).

⁷ The 18 SSA Countries are Central African Republic, Cameroon, Republic of Congo, Gabon, Equatorial Guinea, Chad, Cote d'Ivoire, Senegal, Niger, Nigeria, Republic of Guinea, Sao Tome and Principe, Kenya, Zambia, Ghana, Togo, Gambia and Cabo Verde.

III.3. Presentation of the model

The model used in this research paper is principally based on the Cobb-Douglas production function, which is expressed as follows:

$$Y_t = A_t K_t^\alpha L_t^\beta e^{\varepsilon_t} \quad (1)$$

Where Y_t , A_t , K_t^α , L_t^β represents respectfully the GDP,⁸ the productivity factor, the capital stock, and the labour stock at time t and e^{ε_t} is the disturbance term and e is a base of natural logarithm. Introducing the logarithm function to the Cobb-Douglas production function we get the following:

$$FDI_{it} = a_0 + a_1GDPG_{it} + a_2INF_{it} + a_3\log WAGA_{it} + a_4\log TEL_{it} + a_5OP_{it} + a_6COR_{it} + a_7TAX_{it} + \mu \quad (2)$$

where FDI_{it} denotes FDI net inflows as a percentage of Gross Domestic Product (GDP); $GDPG_{it}$ denotes growth rate of per capita GDP, which is a proxy for market size; INF_{it} denotes the rate of inflation measured by annual percentage change of consumer prices, which is a proxy for economic stability; $\log TEL_{it}$ shows the percentage of Mobile cellular subscriptions per 100 people measured in logs,⁹ which is a proxy for infrastructure; while $\log WAGA_{it}$ is a proxy for yearly wage considered as the labour cost per worker in manufacturing measured in logs; OP_{it} which is computed as the average day to import and which is a proxy for the degree of openness, COR_{it} is considered as the exposure to administrative bottleneck and corruption where (1= lowest risk to 6=highest risk); TAX_{it} denotes taxes on income, profits and capital gains.

According to Morisset (2000) and Asiedu (2006), the common perception among many observers is that FDI in African countries is largely driven by their natural resources and the size of their local markets. Therefore, we expect the sign of per capita GDP growth to be positive.

In addition, economic stability is an important component for foreign investors because stability assures investor of the potentials for a reliable return on investment and the sustainability and perennity of their investment and a stable and continuous cash flow, therefore the expected sign of inflation is positive.

⁸ Gross domestic product or aggregate output

⁹ Due to the fact that we could not obtain a consistent annual data on percentage of paved Roads, or Secure Internet servers (per 1 million people) etc, we decided to use mobile telephone subscriber as the proxy for Infrastructure. This choice is motivated by the fact that mobile phone subscription uses the same technology as internet connection and at the same time it determines to some extent the population's access to electricity connection which can be associated to infrastructure development.

(Krugell, 2005) argued that comparative cost advantage of labour are one of the main reasons to outsource; being therefore a motive to attract foreign investors, according to their findings the expected sign of the cost of labour is positive. Dupasquier *et al.* (2006) and Musila *et al.* (2006) came to the same conclusion that foreign investors may prefer countries with better infrastructure. They emphasised on the fact that the expected sign of infrastructure tend to be a positive factor to attract FDI. Foreign investors may prefer countries with a liberal trade regime; this is why (Blomstrom *et al.* 1997) concluded that for this to be effective, the expected sign of openness should be positive. According to Wei, (2000) the expected sign of tax is negative thereby decreasing the expected profits and discourage investors.

III.4. Results discussion

Most of the estimated coefficients are individually highly significant (except for OP, COR, TEL), as the p values of the estimated coefficients are extremely small. The intercept values of the 18 SSA Countries are statistically different as we can see on the tables below.

Table 1
The intercept values of the 18 SSA Countries

<i>COUNTRY</i>	<i>Abbreviation</i>	<i>Intercept value</i>
Cameroon	CMR_--C	179.6335
Cabo Verde	CPV_--C	213.6119
Central African Republic	CAF_--C	168.9828
Chad	TCD_--C	173.0576
Congo	COG_--C	192.4710
Cote D'Ivoire	CIV_--C	169.2839
Equatorial Guinee	GNQ_--C	174.5653
Gabon	GAB_--C	163.5176
Gambia	GMB_--C	222.3886
Ghana	GHA_--C	75.62221
Guinee	GIN_--C	163.6836
Kenya	KEN_--C	174.0628
Niger	NER_--C	163.3050
Nigeria	NGA_--C	145.2143
Sao Tome and Principe	STP_--C	93.04141
Senegal	SEN_--C	127.6688
Togo	TGO_--C	182.5556
Zambia	ZMB_--C	179.0845

Source: Calculation of the authors.

These differences in the intercepts may be due to unique features of each country, such as differences in natural resources endowment, availability of highly trained human capital, average level of good governance, country's stability and international treaties just to name these few. The correlation coefficient R^2 is 52% expressing an acceptable goodness of fit between the variables.

If we take as an example the case of one given country among the 18 countries, the estimated regression of the said country is as follows:

$$\begin{aligned} FDI_{SSA} = & C_{SSA} - 2.744 * COR_{SSA} + 0.104 * \log WAG_{SSA} - 32.0588 * GDPG_{SSA} \\ & + 0.358 * INF_{SSA} - 2.622 * 10^{-14} * \log TEL_{SSA} + 7.260 * TAX_{SSA} \\ & + 0.136 * OP_{SSA} \end{aligned}$$

Table 2 normality test table

<i>Variable</i>	<i>Coefficient</i>	<i>sign of coefficient</i>	<i>normality test P value</i>	<i>Pass normality test?</i>
COR?	-2.744103	Negative	0.3567	no
WAG?	0.104440	Positive	0.0022	yes
GDPG?	-32.05871	Negative	0.0006	yes
INF?	0.357957	Positive	0.0000	yes
TEL?	-2.62E-14	Negative	0.8766	no
TAX?	7.259560	Positive	0.0000	yes
OP?	0.135939	Positive	0.1795	no

Source: Calculation of the authors.

This means that the variables that have a negative impact in attracting foreign direct investment in SSA are:

- ✓ Corruption (Any unit increase in corruption index reduces FDI by 2.744 units),
- ✓ GDP growth rate (Any unit increase in GDP growth rate reduces FDI by 32.0588 units),
- ✓ The level of infrastructure development (Any unit increase in infrastructure reduces FDI by $2.622 * 10^{-14}$ unit).

Table 3
t- Statistics and probability table

<i>Variable</i>	<i>t-Statistic</i>	<i>Prob.</i>
COR?	-0.924175	0.3567
WAG?	3.111325	0.0022*
GDPG?	-3.511596	0.0006*
INF?	4.834813	0.0000*
TEL?	-0.155456	0.8766
TAX?	5.110891	0.0000*
OP?	1.347853	0.1795

*Significant at 1% level of significance. Source: Authors Estimations.

The t-statistics of corruption, infrastructure and openness are less than two, meaning that we cannot reject the null hypothesis of $\beta = 0$. Thus, the coefficients are not significantly different from zero; therefore, we may not rely on corruption index, level of infrastructure development and countries openness as variables that could absolutely determine the level of a SSA countries ability to attract FDI. These variables may not impact FDI attraction in SSA. Knowing that SSA countries have high corruption indices, low level of infrastructure development and the level of openness of the countries is relatively low, this could be seen as an impediment to attract FDI, but in our model, we conclude that these variables are not significantly different from zero. Therefore, investors are encouraged to invest in SSA regardless of the low level of infrastructure development, economic openness and relative high level of corruption.

As to the expected signs of the independent variables, we can notice that the sign of inflation is positive instead of being negative as expected, this could be due to the fact that SSA economies are growing economies, with the PPP (Purchasing Power Parity) being relatively low in these countries, but due to comparative price advantage in the production of goods and services. The demand of goods and services in these countries seems to grow very fast, and taking into consideration the first law of demand, the prices of goods and services tend to increase because of increasing demand, generating increase in price. Thereby, inflation in the economies of study tends to have comparative price advantage in the production and supply of some goods and services. Thus, the prices in SSA continue to be highly competitive compared to the prices of competing nations, this may be why most investors tend to outsource in SSA.

In addition, the expected sign of infrastructure is negative instead of being positive, this may be because SSA countries are still in construction, so Infrastructure

development is not at the standard of developed countries. Nevertheless having a negative sign of infrastructure could be seen as an advantage for investors who could take this as an invitation to look forward to invest in the sector.

The expected sign of taxes is negative, but in our model it is positive. This may be due to the fact the SSA countries (as compared to OECD and/or BRIC countries) have low taxes rates, but with the global warming alarm to protect the environment, many SSA have indulged in the implementation of some taxes reforms that were not included before in the countries taxes system. With the signing of international treaties to protect the environment and to protect workers' rights, taxes have relatively increased as compared to past decades; these may be some of the reasons why the sign of the taxes is positive. Those notwithstanding SSA still have comparative taxes advantage as compare to world average.

The expected sign of GDPG is positive, but in our model it is negative. This result totally opposed economic literature. Nevertheless, it is not strange for African economies in the sense that the majority of FDI in SSA repatriate the benefits they receive from their activities. More of this, many of the recently attracted FDI to SSA, have been in the sectors of privatization as a result of the structural adjustment program and HIPC initiative of the IMF and World Bank, resulting from governments' mismanagement of public owned enterprises. So the FDI in those sectors did not bring much value added in the existing plants and machineries, rather they came with better managerial tools to reap gigantic benefit and re-invested them in home countries; thereby draining the host countries, which could explain the controversial sign between FDI and GDPG in our model.

Conclusion and Recommendation

In this study of emerging countries' opportunities to invest in SSA countries, we chose 18 sub Saharan African Countries because they belong the low middle-income countries level, for a period of 11 years. The data were computed using the panel data analysis method to estimate the parameters. Throughout this study, we focussed on emerging countries opportunities to invest in SSA, looking at the variables that could affect countries ability to attract FDI inflows, knowing that SSA countries are attracting green field FDI more than any other type of FDI.

We used the panel data analysis to come out with concrete results regarding opportunities to invest in SSA countries, and we went forward to notice that some variables notably (corruption, infrastructure development and openness) tend not to be significant in determining the ability of countries to attract FDI; going against the empirical believe of factors affecting countries ability to attract FDI.

Also, the expected signs of some of the variables (namely inflation, infrastructure development and taxes) that affect FDI attraction were not met as propounded by literature. Yet SSA countries still have comparative advantage on the expected impact of these variables in determining countries ability in attracting FDI; because taxes rate and inflation for instance are relatively low in SSA countries, giving SSA countries a comparative advantage thereby making SSA countries a better place for investors mainly those with green field FDI to invest, thereby amelioration the level of infrastructure development and generating higher return on investment.

In other to enable SSA countries to boost economic growth policy makers should strive to manipulate the productivity factor (A), this could easily be done by creating better business environment (reduction of the time to create a business, reduce the number of documents to prepare in other to import or export in SSA), to attract FDI. Monetary authorities should monitor and control inflation by controlling monetary policy (this could be done by joining a flexible exchange rate system rather than a pegged exchange rate system in which most of these countries are trapped; to overcome the problem of external shock coming from European currency and external financial markets).

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Anexes

Dependent Variable: FDI?

Method: Pooled Least Squares

Date: 05/09/14 Time: 13:05

Sample(adjusted): 2001 2012

Included observations: 11

Excluded observations: 1 after adjusting endpoints

Number of cross-sections used: 18

Total panel (balanced) observations: 198

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
COR?	-2.744103	2.969245	-0.924175	0.3567
WAG?	0.104440	0.033568	3.111325	0.0022
GDPG?	-32.05871	9.129384	-3.511596	0.0006
INF?	0.357957	0.074037	4.834813	0.0000
TEL?	-2.62E-14	1.69E-13	-0.155456	0.8766
TAX?	7.259560	1.420410	5.110891	0.0000
OP?	0.135939	0.100856	1.347853	0.1795

Fixed Effects

CAF_--C	168.9828		
CMR_--C	179.6335		
COG_--C	192.4710		
GAB_--C	163.5176		
GNQ_--C	174.5653		
TCD_--C	173.0576		
ZMB_--C	179.0845		
TGO_--C	182.5556		
STP_--C	93.04141		
SEN_--C	127.6688		
NGA_--C	145.2143		
NER_--C	163.3050		
KEN_--C	174.0628		
GMB_--C	222.3886		
GIN_--C	163.6836		
GHA_--C	75.62221		
CPV_--C	213.6119		
CIV_--C	169.2839		
R-squared	0.518219	Mean dependent var	6.367722
Adjusted R-squared	0.451382	S.D. dependent var	8.042536
S.E. of regression	5.957007	Sum squared resid	6139.066
F-statistic	31.01400	Durbin-Watson stat	1.379450
Prob(F-statistic)	0.000000		