Government Regulation of Foreign Direct Investment Inflow and Sustainable Development in Sub-Saharan Africa

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Abstract — The purpose of this paper is two-fold: Firstly, to examine Sub-Saharan Africa’s (SSA) competitive advantage as the least recipient of regional Foreign Direct Investment (FDI). Secondly, to investigate the possibility of unified Government Regulations to exploit SSA competitiveness. It is argued that there is a strong correlation between SSA’s competitiveness and FDI on the one hand and Government Regulations to enhance the regional competitive advantage on the other. Using Dynamic Panel Analysis (1970-2013), results obtained reveal occurrence of predatory FDI encouraged by SSA’s lack of competitive advantage. The conclusion establishes the need for an SSA Investment Board, a development of collective SSA investment policies, as well as regional investment zones for sustainable growth and development.

Index Terms — Governance, Foreign Investment, Sustainable Development.

I. INTRODUCTION

There have been at least three notable global waves of Foreign Direct Investment (FDI) by Transnational Corporations (TNCs) over the last 70 years. The first wave, which began shortly after the Second World War, was mainly by American TNCs, who were drawn to Europe by the higher rate of return. The second wave began in the 1960s by TNCs from developed countries to predominantly the Newly Industrializing Economies (NIEs) in Asia because of government incentives, new markets and cheap labour. The third wave began in the 1980s by TNCs from NIEs seeking a new location for cheap labour. The flow of FDI from the NIEs is not only a testament to the fact that investment is fundamental to economic growth and development, but also that recipient FDI can evolve to become foreign investors. However, in all three waves, Sub-Sahara Africa (SSA) has been the lowest recipient of FDI and the least to benefit in sustainable development.

Many studies have been carried out to address why SSA has been the lowest recipient of FDI. The findings from these studies have shown corruption [4], [28], negative perceptions [28], political instability [7], [8], institutional issues [11], [31], exchange rate volatility [24], problematic market size [12] and lack of infrastructure [18] to be the key reasons. While the conclusions of these studies are accurate, what makes this paper unique and different from previous studies is its discussion and analysis of the following: firstly, to examine SSA’s lack of competitive advantage to being the preferred FDI location; and secondly, to investigate the vital role of unified Government Regulations in the region needed to exploit SSA’s competitiveness. It is argued that there is a strong correlation between SSA’s competitiveness and FDI and the role of the Government to initiate regulations that harness the existing competitive advantage and enhance complimentary factors that exist between the SSA countries.

Since this is the 2nd Covenant University – International Conference on African Development Issues (ICADI 2015), the conclusion of this paper makes three policy recommendations to enable SSA to become more investment friendly. The first policy recommendation is the establishment of SSA’s Investment Board. The primary role of the Board will be to act as the investment “one-stop-shop” for the SSA region. The second recommendation is a call for the SSA governments to harmonize their investment policies and the third, to hold annual investment meetings with the sole purpose of removing any contradictions. The paper is divided into eight sections, with the next section examining the theories of FDI. The third section looks at previous empirical findings of the subject matter, while the fourth deals with the extent of FDI in SSA. The fifth and sixth sections outline the data methodology and utilize a fixed effect model of panel data, for observations from 1970 to 2013 to determine the effect of government regulations and competitiveness on the attraction of FDI inflow into SSA. Sections seven analyses the results from the panel data and section eight concludes with policy recommendations.

II. THEORIES OF FDI

There have also been at least three corresponding bodies of literature to explain the global waves of FDI since the end of the Second World War. The first theory is the neoclassical capital arbitrage, which until 1960s was the only established explanation of foreign investment. According to this theory, it is the interest rate
difference between countries that causes the flow of FDI across national borders [13], [19], [20]. The second theory, which was particularly popular in the 70s, is the claim that the possession of firm specific "monopolistic advantages" or "intangible assets" is sine qua non for firm’s overseas production. The monopolistic advantages may be in the form of production technologies, managerial skills, industrial organisation, knowledge of product, and factor markets [1], [2], [14], [15], [16], [17], [25], [32], [33].

The third theory which was an attempt to explain outward direct investment from Japan [21], [22], [23], [29], [30], in the 80s and subsequently modified in the 90s to accommodate the uniqueness of Singapore and other NIEs, claim that FDI responds to changes in comparative advantage [27]. That is, firms in labor-intensive industries, which are losing comparative advantage, will invest in countries that are gaining comparative advantage in that industry.

The common theme in all three bodies of literature is that there is a correlation between the competitive nature of factors of production and FDI. In other words, in an increasingly integrated economy where at a micro level low transport and coordination costs allow firms substantial choice over where they locate, the notion of place-based competitiveness is important. If there were no competition the process of attracting FDI would be different; however, since competition exists, then it follows that at a macro level, governments have a role to play in shaping it. By way of simple analogy, all graduates seeking employment have what is known as “general skills” by virtue of formal training. However, when applying for specific roles, the general skills have to be exploited as core skills and competences to reflect the role. Similarly, as countries compete for FDI, governments have the specific role through investment friendly policies to shape both firm and national level competitiveness.

Indeed, competitiveness then characterizes the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rate. In other words, a more competitive economy is one that is likely to grow faster over time [35]. All countries and regions are endowed with certain advantages, which needs to be harnessed to compete for FDI. This is probably one of the “missing links” to SSA’s inability to attract a greater level of FDI.

III. PREVIOUS EMPIRICAL FINDINGS

In line with the above-mentioned theories are several empirical studies carried out to evidently support the FDI flows to SSA countries. One of the early studies was the work of Agodo [3], who strongly supports the argument for rate of returns as a motive for United States (U.S.) manufacturing investment in Africa. The study, which involved 33 U.S. firms having 46 manufacturing investments in 20 SSA countries, argued that there was a strong correlation between U.S. FDI in SSA and the expected premium. Accordingly, four main factors explain why U.S. firms’ managers sought for a higher rate of return. Firstly, the move to Africa entails new risks and problems beyond what the U.S. investor would ordinarily encounter in the domestic market. Secondly, the higher rate of return in Africa was thus intended to compensate for the new risks and problems and its size was determined by, and varied in accordance with, the risk factor and other pertinent circumstances confronting the U.S. investor in the host country. Thirdly, the expected premium was intended to provide a sound independent basis for the long-term growth of the new venture without continued financial reliance on the parent firm. Finally, the expected premium also provided a modest reward for the parent’s invested capital [26].

The outcome of Agodo’s [3] research has been contradicted by Asiedu [5], who used panel-data to analyze 34 SSA countries between 1980 and 2000. The result showed that while high return on investment increased FDI to other developing countries, the same correlation was not true for SSA countries. In other words, there was no direct evidence to support the case for rate of return and FDI in SSA. This outcome supports the argument that profitability alone is not sufficient as a magnet of FDI. In a later research publication Asiedu [7] employed panel data for 22 SSA countries over the period 1984 to 2000 and argued that large local markets, natural resource endowments, good infrastructure, low inflation, an efficient legal system and a good investment framework promoted FDI and were some of the factors found to be significant in attracting FDI in SSA. For SSA to compete for FDI it is not enough to improve the policy environment alone but it must be supported by strong government actions [8], [10]. Finally, Asiedu and Gyimah-Brempong [9] demonstrated that SSA countries with improved institutions and policy environment would attract FDI.

As a way of identifying profitable and non-profitable markets in SSA, Berah [12] used the Boston Consulting Group (BCG) type matrix. The BCG matrix identified four markets among the 36 SSA countries. The first quadrant represents countries with a substantial market that is large enough to attract FDI. The second quadrant represents countries that are problematic but have reasonable potential for growth. Optimism in these countries is based on large markets, however they are severely handicapped by corruption. The third quadrant represents countries that are clearly in bad shape and are regarded as risky markets. The final quadrant represents countries that have the worst of both worlds; small and non-attractive markets, so investors would tend to avoid them.

Summing up the empirical findings, the following two points are evident. Firstly, it is not a single factor but a combination of factors that motivate TNCs to pursue specific investments in SSA. This is particularly evident in the work of Asiedu and Gyimah-Brempong [9] where factors such as good infrastructure, natural resource
endowment and an enabling investment environment are found to be particularly important to foreign investors. Secondly, that rate of returns and market size competitive advantage in itself is not enough to attract FDI.

Based on the current literature and the empirical evidence, there is a need to adopt a new approach to FDI in SSA as the current system is failing to attract foreign investors to the degree needed for sustainable growth and development. While progress has been made in institutional reforms, all SSA countries need to look beyond their national policies to FDI. Subsequently, a common and concerted approach in gaining the attention of foreign investors is necessary. In order to implement such an approach, governments in the SSA region need to understand that they have a role to play in shaping the competitiveness of the region. This is where this study advocates for an investment board for the SSA region.

IV. STYLIZED FACTS ON FDI IN SSA

SSA’s attractiveness and economic performance since the 90s has been relatively poor in comparison with Latin America and Asia, where FDI has played a major role in sustainable development. Nevertheless, SSA performance since 2002 has improved with real GDP growth rates moving from 4% (2002) to 6% (2006) and 10% (2014)[34].

Following this improvement, four notable trends have emerged as a characteristic of SSA’s FDI. Firstly, both inflow and outflow volumes across the region have continued to increase. Table 1 below gives an overview of the global FDI trends across regions (2010-2012). This reflects a global increase in both FDI inflow and outflow following the financial crisis. Secondly, even though the financial crisis affected SSA’s attractiveness by 75 percent, the impact was felt beyond the SSA region [34]. Thirdly, the positive outcome of the financial crisis has led individual countries in SSA region to implement trade openness strategies, institutional changes and competitiveness among other reforms. Finally, while the regions remain the lowest recipient of FDI to developing nations, these reforms have reversed the effect of the financial crisis in which the region now enjoys the benefit of continuous increase in inflow and outflow FDI.

### TABLE I. TRENDS OF FDI ACROSS REGIONS (U.S. BILLION DOLLARS)

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<tbody>
<tr>
<td>World</td>
<td>1409</td>
<td>1652</td>
<td>1351</td>
<td>1505</td>
<td>1678</td>
<td>1391</td>
<td></td>
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<tr>
<td>Africa</td>
<td>4</td>
<td>48</td>
<td>50</td>
<td>9</td>
<td>5</td>
<td>14</td>
<td></td>
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<tr>
<td>Latin America</td>
<td>190</td>
<td>249</td>
<td>244</td>
<td>119</td>
<td>105</td>
<td>103</td>
<td></td>
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<tr>
<td>Asia</td>
<td>401</td>
<td>436</td>
<td>407</td>
<td>284</td>
<td>311</td>
<td>308</td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Transition</td>
<td>75</td>
<td>96</td>
<td>87</td>
<td>62</td>
<td>73</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Developed</td>
<td>696</td>
<td>820</td>
<td>561</td>
<td>1030</td>
<td>1183</td>
<td>909</td>
<td></td>
</tr>
<tr>
<td>Developing</td>
<td>637</td>
<td>735</td>
<td>703</td>
<td>413</td>
<td>422</td>
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Prior to independence from the 1950s through the 1960s, most SSA countries operated a closed economy with trade relations primarily with their colonial affiliates. The right to political rule howbeit, led to limited international trade relations with other countries. The investment flow during this period was therefore heavily reliant upon its colonial affiliates.

Even though these nations had achieved independence, they were still not ready to receive a large flow of FDI. This was due to low-level skills within the domestic labour force and institutional deficiency. This was a pattern that appeared to be common across the SSA region, rendering it unable to fully maximize its attractiveness to the second global wave of FDI to developing economies. However, in the 70s and 80s FDI inflow was hindered by the occurrence of coups d’ etat, civil unrest, political instability and an import substitution strategy that was adopted by many of the countries in the region.

In spite of the above-mentioned drawbacks, the trend of FDI into SSA (figure 1) revealed two notable patterns. The period between 1970 – 1979 shows FDI inflow was relatively stable. The period from 1980 – 2014 indicates continuous increase in FDI inflow volume with sharp volatility between 2009 and 2010 reflecting the period of financial crisis. This trend became less volatile (however, still at an increasing return to scale) from 2010 to 2013.

The resulting implication of the trend on the global scale was an increase in FDI volume between 1980 to 1990 by US$153.6 billion, an increase of US$1,193.8 billion was experienced between 1990 to 2000. The sharp volatility period of 2000 to 2009 was due to economic and financial crisis with notable reduction changes in 2000 (US$1,401.5 billion), 2003 (US$565.7 billion) and 2007 (US$2100.0 billion) [34]. The period 2010 to 2013 however, witnessed an increasing rise in global FDI inflow volumes till date. However, SSA percentage share of global FDI volume stood at a mere 0.3 percent (2011) to 3.1 percent (2010) [34].

The effect of the global financial crisis which momentarily halted the global FDI trends within other regions, clearly had minimal impact on the SSA region [34]. However, the poor percentage attraction pattern of FDI Inflow to SSA was due to a prevalence of resource
seeking FDI into single mineral extractive industries. The extractive outputs were usually exported from the host economy with minimal productive processing carried out on them. Thus, while the nature FDI attraction on the global scale increased across other regions, during the third wave, the percentage into SSA again remained the lowest [34].

The variance in the trends of growth between GDP and FDI inflow within SSA (figure 2) experienced an increasing rise in GDP figures, thus increasing the attractiveness to extractive industry foreign investment. The actual nature and volume of FDI inflow clearly reflects growth patterns consistent with FDI theory [34].

The regional FDI inflow volumes within SSA, recorded an average of 20 percent of GDP. This occurred with the ECOWAS and WAEMU regions recording the highest and lowest values respectively [36].

Also, the prevalent trait of the SSA economies was their inadequate provision of basic infrastructure required to maximize the benefits of the recorded low volumes of FDI inflow. This situation clearly weakened the absorptive capacity of SSA economies in the translation of technological advancement transferred by foreign investment. This was needed to trigger the required output level within the domestic market given the trade openness regimes already in place within SSA countries [11]. This no doubt reveals the SSA region’s position within the global trend of FDI inflow growth effect that has gradually continued to increase in other developing regions, due to the introduction host countries governmental regulation except in Africa [34].

V. DATA AND METHODOLOGY

Data for this study was obtained from the World Bank, World Development Indicators data set for 43 years (1970 to 2013) for the SSA region. The list of variables at constant United States Dollars (USD) includes the dependent variable FDI inflow (FDII) and the following explanatory variable: Gross Domestic Product (GDP), FDI Inflow of the pervious year (FDII\(_{t-1}\)), Gross National Income (GNI), Export (EXPORT), Import (IMPORT), Trade Openness (OPEN) (as a proxy for Government Regulations), FDI Outflow (FDIO), Labour (LABOUR) and Population (POP) (as a proxy for Market Potential). The long term effect of Government regulation on the attraction of FDI inflow towards attaining sustained development within SSA was established in a Dynamic Panel Estimation Technique. The choice of this technique allows for the control for errors of fixed effect, omitted variable bias, panel bias and endogeneity using the system Generalized Method of Moment (GMM) while also utilizing the lag of FDI within the regression.

VI. MODEL

Based on theory, we specified a model of determinants of FDI inflow, in other to establish the effect of Governmental regulation on FDI Inflow attraction into SSA as follows:

$$\text{FDII}_t = \alpha_0 + \alpha_1 \text{GDP}_t + \beta_1 \text{X}_t + \varepsilon_t$$

$$X_t$$ represents the determinants of FDI inflow into the SSA region which was then further specified as follows:

$$\text{FDII}_{t} = \alpha_0 + \alpha_1 \text{GDP}_t + \beta_1 \text{FDII}_{t-1} + \beta_2 \text{GNI}_t + \beta_3 \text{EXPORT}_t + \beta_4 \text{IMPORT}_t + \beta_5 \text{OPEN}_t + \beta_6 \text{FDIO}_t + \beta_7 \text{LABOUR}_t + \beta_8 \text{POP}_t + \varepsilon_t$$

$$\varepsilon_t$$ represents the error term. The model was analyzed in both a Linear Regression and Dynamic Panel Data Estimation as explained earlier using STATA 13 Statistical Package.

VII. RESULTS

Both the Linear Regression and Dynamic Panel Data Estimations revealed that Import levels (IMPORT), Trade
Openness (OPEN), the presence of Outward FDI (FDIO) as well as Gross Domestic Product (GDP) were strongly responsible for FDI Inflow attraction, while Gross National Income levels (GNI) and Export (EXPORT) volume were strongly significant in discouraging FDI Inflow into SSA countries. These results reflect an SSA economy that is conducive for short term foreign investment without the macro-economic framework to sustain cyclical growth over a long period. Investors would therefore opt to engage in production of finished goods considered to be within the relatively low-income budget of the domestic market. Another attractive alternative would be semi-finished goods and raw material production requiring short term time horizon, as well as relatively low fixed cost of production for the domestic market.

Results from the Dynamic Panel Data Estimation indicate that FDI attraction into SSA was positively influenced by rate of returns. Therefore, the rate of returns is a major determinant of FDI in SSA.

POP, on the other hand was observed not to be a significant determinant of FDI inflow in the respective estimations. This reveals that although the SSA economy possesses an attractive volume of potential market for foreign investors, however the region lacks financial capacity for effective demand for finished goods and services. Similarly, the relatively low minimum wage rate prevalent in the SSA economies as reported by the Gross National Income (GNI) level mirrors the low capacity for demand of finished goods.

**TABLE III.** **LINEAR REGRESSION RESULTS**

| Variables | Coefficient | T  | P>|z|  |
|-----------|-------------|----|-----|
| GDP       | 0.0850472   | 2.99| 0.007 |
| GNI       | -0.0824446  | -2.79| 0.010 |
| BOP       | 0.0059256   | 0.26| 0.799 |
| EXP ORT   | -0.0779443  | -3.04| 0.006 |
| IMP ORT   | 0.080974    | 2.75| 0.011 |
| OPEN      | 8467.048    | 5.57| 0.000 |
| FDIO      | 732.0267    | 39.17| 0.000 |
| LAB OUR   | 0.083802    | 1.69| 0.104 |
| POP       | -0.0351946  | -1.87| 0.074 |

Source: Authors’ Analysis (2015)

**TABLE IV.** **DYNAMIC PANEL-DATA ESTIMATION**

| Variables | Coefficient | Z  | P>|z|  |
|-----------|-------------|----|-----|
| FDII\_t-1 | 0.0465652   | 1.54| 0.124 |
| GDP       | 0.0995102   | 3.04| 0.002 |
| GNI       | -0.0995402  | -2.90| 0.004 |
| BOP       | 0.0194333   | 0.72| 0.469 |

Source: Authors’ Analysis (2015)

However, the Balance of Payment (BOP) and Labour Force (LABOUR) were non-determining factors of FDI inflow in the SSA region. This has a negative effect on capital-intensive FDI, as the majority of the economies in the region are attractive to labour-intensive industries. The disadvantage in this is that it hinders the region from benefitting from the spillover effect of technological transfer that is mostly associated with capital-intensive industries. This is because most of the countries in the region have employment as their major strategy.

The attractiveness of trade openness strategies within SSA countries comes along with the negative feature of an unskilled labour force and a domestic market that is dependent on low-income levels. While this may be attractive to certain kinds of TNCs, it leaves a vacuum for opportunities to train, educate and upgrade skill levels in the work force.

Following this, markets in SSA remain undeveloped, less attractive and mostly consumers of technology. Therefore markets in SSA will continue to be dependent on imported capital goods and less attractive for sustainable development.

**VIII. POLICY RECOMMENDATIONS AND CONCLUSION**

Therefore we conclude that trade openness, institutional reforms and competitiveness are fundamental to attracting FDI into SSA. However, competition in itself is not sufficient in attracting FDI unless there is a regulated framework and a unified policy to enhance the region’s competitive advantage. As a result, this paper provides three policy recommendations that will enable the region to become investment friendly. Firstly, the need to establish the SSA investment board, entrusted with the responsibility of harnessing individual government investment policy in the region.

Secondly, the investment board will clearly identify and map investment zones in the region with the sole purpose being to attract location-specific FDI and accordingly outline investment incentives and the economic uniqueness of each zone. For example, the West African countries exhibit potential for specialization in labor-intensive investment, while Southern Africa economies would best capitalize on the attraction of capital-intensive investment. East Africa, based on natural resource advantage would best be
focused on resource oriented foreign investment (which will also be shared with West Africa) with the objective of a gradual transition of both zones to the manufacturing sector.

Thirdly, there should be an annual investment meeting of SSA leaders to regularly review and harmonize investment policies with the sole purpose of removing contradictions. This will have the advantage of helping SSA countries, especially the smaller economies in attracting FDI opportunities that are unique and having the required competitive advantage.

This recommended approach has not been seen previously but through its synergistic implementation, we believe that these three components can work together to harness the region's investment potential, making it more investment friendly. This will in turn raise the profile of the region both locally and internationally as a competitive market for FDI.

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