## The effect of Sub Saharan African import Weighted Tariff policy on Foreign Direct Investment

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### Abstract

*The share of FDI in SSA has increased but its share in the global economy is way far less compared to Asia. This study seeks to investigate empirically the effect of SSA import weighted tariff policy on FDI, using non-stationary heterogeneous panel, the study cover a panel of 24 Sub Saharan African countries spanning the period 1988 to 2017. The study employ the Panel auto regressive distributed lag model (ARDL) and the result of the study indicates a negative and significant relationship among import tariff, corruption and FDI implying that import tariff, corruption posit a negative effect on FDI. However, gross fixed capital formation, law and order, export posit a positive and significant relationship with FDI. Implication for this is that the need to consolidate on the past anti-corruption crusade cannot be underscored. Export oriented policy is a key strategy to drive FDI inflow. SSA needs to invest heavily in home investment so as to create an enabling environment for FDI inflow into SSA.*

**Keywords:** FDI, Import Weighted Tariff Policy, Trade Flows Barrier/Restrictions

**JEL Classification**: F42

### 1. Introduction

The experience of FDI flow into Sub Saharan African countries in the 1980s featured a restrictive policy with high restrictions on import specifically (tariff structure) to protect the infant industries (Regional Economic Outlook, 2019). FDI inflow into the Sub-Saharan Africa compared to other regions is low. A stylized fact shows that FDI inflows for the period 1980 and 1989 stood at 2.6% of the world average, it further dropped to 1.9% in the period 1990 to 1999. However, the share rose to about 3.2% in the period 2000 to 2009. Unlike the SSA countries, the Asian countries had received about 14.2 percent, 19.1 percent and 19.1 percent, respectively of the total world FDI inflows (Anyanwu, 2011). In the 1990s, liberalisation regime began with Uruguay Round Agreement, regional trading agreements (RTAs) and trade reforms. Tariff and Non-tariff measures are key issues

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affecting FDI inflow which continue to diminish trade among SSA countries. It is in this light that in 2018, member countries classified under African Union designed a strategy to boost regional trade and economic integration thus by establishing the African Continental Free Trade Area (AfCFTA). The agreed terms to eliminate tariffs on most goods, liberalize trade of key services, so also to address nontariff obstacles and bottlenecks to intraregional trade, and at the end establish a continental single market with free movement of labour and capital. However, the AfCFTA framework has been ratified by twenty two (22) countries which likely to take effect in 2019 (Regional Economic Outlook, 2019).

Although there were series of agreement to improve trade flows in the region which consequently expand trade flow at uneven rate, some of these agreements were West African Economic and Monetary Union (WAEMU), Southern African Customs Union (SACU), Central African Economic and Monetary Union (CEMAC) and the East African Cooperation (EAC). Other RTA policies are Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS), the Southern Africa Development Corporation (SADC), and the East African Community (EAC). These agreements spiked a huge reduction in tariff structure (Regional Economic Outlook, 2019). Despite this RTA, uneven trade flows among countries emerged due to different trade rules that emerged as a result of many Countries being part of different RECs and most importantly time of establishment which further reflects relatively high tariffs on trade flows between countries from different REC. According to Oguma (1998) several factors had affected the regional economic integration in SSA and Africa at large and these stem from trade barriers imposed by some member countries, poor rate of industrial diversification of traded goods, low share of inter-regional trade in the international market, poor complementarity in import and export profiles of trade among member countries.

Several studies have emerged on liberalisation policy but relatively few have efficient measure on the effect of trade policy (see studies by Sachs and Warner 1995; Rodriguez Wacziarg and Welch 2008;Rodrik 1999 and Martens 2009)these authors employed dummy, Black market exchange premium. Cross border activities and forms of restrictions/tariffs are important measures of trade liberalisation. Unfortunately, these studies used trade ratio analysis or trade volume see Serge and Yaoxing (2010); Shaheen *et al.* (2013) and Adhikary (2012). It is in view of this forgoing background that this study seeks to investigate the effect of tariff structure on FDI in SSA countries. This study is structured into five sections including this section. Section two discusses the theoretical framework, section three looks at data and methodology, section four considers data analysis and interpretation and section five looks at conclusion and recommendation.

## 2. Literature Review
One of the prominent theories on tariff is the tariff jumping theory which argued that when tariff is imposed by the labour abundant country, the return to local investment also increases thus, increasing foreign capital inflow in the country. Consequently, foreign firms will prefer to establish their subsidiary production plants in host countries to cut cost hence this limit FDI (Mundell, 1957).

Bond (1991) presents a general equilibrium model with foreign capital taxation and two goods one of which is imported| for small economy (\small" both in goods and capital

markets). With the importable good being capital-intensive, Bond shows that if the credit mechanism is present in foreign investors' home country, the optimal import tariffs for a small, host economy is positive. With the credit mechanisms present in the capital-exporting country, by taxing foreign capital income, the host country extracts a gain in terms of tax revenue that would otherwise be captured by the home country, thus increasing national income and welfare. As Bond (1991) indicates, by bringing with it tax revenue, foreign capital generates a kind of (positive) fiscal externality in the host country. Therefore, a subsidy on foreign capital is called for, and this can be granted in the form of an import tariff.

Bond (1991) further stressed that for the host to capture all of the tax revenue associated with foreign capital income, its tax rate must be set at a level equal to that in the capital-exporting country. This, however, gives rise to a divergence between direct and social cost of capital, i.e. the gross and the net rate of return, respectively. The latter is indeed the return required by foreign capitalists, which in equilibrium must be the same in the host and home country. Therefore, the optimal policy for the host consists of subsidizing foreign capital at a rate equal to the income tax rate. The theory underpinning this study is the theory by (Mundell, 1957)

*Empirical Literature*
Bitar, Hamadeh and Khoueiri (2020) investigated the impact of political risk on FDI on Lebanon economy for the period 2008 to 2018 applying the OLS regression technique. The result of the study revealed that political risk variables such as democratic accountability, bureaucracy accountability and law and order have positive effect on FDI. Quality of institution such as corruption has positive effect on FDI.

Zhang and Daly (2011) in a study examined the determinants of FDI in China applying panel data for the period 2003 to 2009, employing the correlation analysis and ordinary least square regression technique. The result of the study shows that exports from China, large GDP per capital and increased GDP growth, open economic regimes and resources-rich countries determines China FDI. In another study, Aqeel and Nishat (2004) in their study investigated the determinants f FDI in Pakistan for the period 1961–2002, applied the Phillips-Perron Unit Root Testm Johansen cointegration test , VAR and Error-correction Model thus and the result of the study shows that tariff and corporate tax has a negative impact on FDI *

On the contrary, Liargovas and Skandalis (2012) in their study employed a sample of 36 developing economies for the period 1990–2008 using data on developing regions of the world: Latin America, Asia, Africa, CIS (Commonwealth of Independent States) and Eastern Europe employing the panel least squares regression. The result of the study indicates that trade openness political stability; exchange rate stability and market size (as expressed by GDP) have positive influence on FDI.

Similarly, Gastanaga, Jefferery, Nugent and Pashamova (1998) in their study employed panel data covering 49 less developed countries for the period 1970 to 1995 using the pooled OLS and fixed estimation techniques to the effect of reforms on FDI and result indicated a negative relationship between tariff and net FDI implying that tariff jumping seemed to be FDI motive. However, exchange rate has positive effect on FDI.

In a separate study, Majeed and Ahmad (2007) covered sample 49 developing countries over the period 1970 to 2004 to estimate the relationship between FDI and export employing the Three Stage Least Squares method and fixed effects model. Result shows that there is a bi directional causality between export and FDI; there is also a negative relationship between domestic investment and FDI. Shah and Ahmad (2003) in their study examined the determinants of FDI in Pakistan economy, employing the Time-Series data for the period from 1960-61 to 1999-00. The authors applied Johansen-Juselius (1990) test for cointegration employed and Error Correction Model (ECM) and result of the study indicated that tariffs have negative effect on inward FDI.

### 3. Methodology

This study covered 24 out of 49 Sub Saharan African countries spanning the period 1988 to 2017 due to availability of data inform of non-probability sampling technique.

FDI: This is inflow of investment capital into the country; it is a percentage of GDP (% of GDP). It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP (see World Bank, 2014).Trade Liberalisation: trade liberalisation is measured as import weighted tariff. The Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding to each partner country (see World Bank, 2014).

Export: The variable export is measured as exports of goods and services as a percentage of gross domestic products (GDP) as indicated in the measure (see World Bank, 2014). Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. Exchange Rate: It is measured as an annual average based on monthly averages (local currency units relative to the U.S. dollar) (See World Bank, 2014). Domestic Investment: Commonly used proxy for domestic investment is the Gross Fixed Capital Formation. Thus (GFCF) Gross fixed capital formation Gross fixed capital formation (% of GDP) Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings (see World Bank, 2014).

Corruption: this is measured as Corruption Perceptions Index (CPI), which is a composite index or poll of polls, that ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians (see World Bank, 2014). Law and order: It is measured as quality of law and order. Thus, it is an index which measures the level at which the citizen of a country develop confidence and also abide strictly to the rules governing the society especially on the rules that guide or enforce contract rules, property rights, police and the court of law (see World Bank, 2014).

The model specification for this study is expressed as:

$$FDI = \beta_0 + \beta_1 weightedimporttariff + \beta_2 Exchrate + \beta_3 Export + \beta_4 InstQuality + \beta_5 Marketsize + \beta_6 FDI + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where *FDI* is the dependent variable, $\beta_0$ is the constant or intercept, $\beta_1\beta_2 \ldots.. \beta_6$ are the slope of the coefficient with respect to independent variables (trade liberalisation, exchange rate institutional quality, export, market size and FDI). $\varepsilon_{it}$ is the error term captures unobserved characteristics.

This study employed the autoregressive distributed lag model, it is important to reiterate that one of the essential factor responsible for employing the ARDL model is that series must not be integrated or same order (see Pesaran & Smith, 1995; Pesaran, Shin & Smith 1997). The generalised ARDL $(p, q_1, q_2, \ldots, q)$ model is expressed as:

$$y_{it} = \sum_{j=1}^{p} \delta_i \, y_{i,t-j} + \sum_{j=0}^{q} \beta'_{ij} \, x_{i,t-j} + \Phi + e_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..2$$

In this case, $y_{it}$ mean dependent variable $(\beta'_{it})'$ is a $k^x I$ vector that are allowed to be purely $I(0) or I(1)$ or cointegrated $\delta_{ij}$ is the coefficient of lagged dependent variable called scalars; $\beta_{ij}$ are $k^x I$ coefficient of vectors; $\Phi$ is the unit specific fixed effects; $i = 1, 2, \ldots, N; t = 1, 2, \ldots, T; p, q$ are optional lagged orders; $e_{it}$ is the error term or white noise.

There parameter ARDL $p, q_1, q_2, \ldots, q_T$ error correction model is specified as:

$$\Delta y_{ij} = \theta_i \left( y_{i,t-1} - \lambda'_i X_{i,t} \right) + \sum_{j-1}^{p-1} \xi_{ij} \, \Delta y_{i,t-1} + \sum_{j=0}^{q-1} \beta'_{ij} \, \Delta X_{i,t-j} + \varphi_i + e_{it} \ldots\ldots\ldots\ldots\ldots.3$$

Note: $\theta_i = -(1 - \delta_i)$, group specific speed of adjustment coefficient (expected) that $(\theta_i < 0)$; $\lambda'_i = vactor of long - run relationship$; $ECT = [Y_{i,t-1} - \lambda'_{i,t}]$, the error correction term; $\xi_{ij}, \beta'_{ij}$ are the short-run dynamic coefficients.

## 4. Result

*Unit Root Test*
Panel series are known to be non-stationary by nature; hence will require the diagnostic test for stationarity to check if stationary or not.

In Table 1, the result of the study indicates that FDI, Corruption and law and order are stationary at level value. This is not surprising as macroeconomic time series are usually non stationary. However, the gross fixed capital formation, tariff, exchange rate, export, GDP are not stationary at level values. Thus, there was need to difference the series as conventionally done i.e. subjecting series to panel ADF and PP Fisher stationarity test procedure. After differencing, the initial panel series that were not stationary at level value were all stationary at first difference and integrated of order one 1(1). This study opts for the ARDL approach which conventionally allows for cointegration test when series are stationary of different order i.e. 1(0) and 1(1) but not of 1(2). The xtpmg mean group, pooled mean group and dynamic fixed effect estimation will be employed thus the Hausman sigmamore will allow for selection of most appropriate model (see Blackburne & Frank, 2007).

Table 1: Panel Unit Root Test (In Level)

| Variable | ADF Fisher Test | PP-Fisher Test | level of Integation | ADF-Fisher Test | PP-Fisher Test | Diff Level |
|---|---|---|---|---|---|---|
| FDI | -2.9326 (0.0017) | -4.8255 (0.0000) | 1(0) | -2.0302 (0.0000) | -13.937 (0.0000) | 1(1) |
| Import Tariff | 2.1286 (0.9834) | -1.7213 (0.0426) | 1(1) | -6.5289 (0.0000) | -14.120 (0.0000) | 1(1) |
| Excrate | 0.8597 (0.8056) | 0.5349 (0.7036) | 1(1) | -5.6982 (0.0000) | -7.0595 (0.0000) | 1(1) |
| GFCF | -2.6027 (.0046) | -1.3144 (0.0944) | 1(1) | -4.7135 (0.0000) | -8.3889 (0.0000) | 1(1) |
| GDP | 2.7025 (1.0000) | 7.4607 1.0000) | 1(1) | -4.0971 (0.0000) | -4.0811 (0.0000) | 1(1) |
| Export | -0.7352 (0.2311) | -0.9624 (0.1679) | 1(1) | -7.0739 (0.0000) | -10.924 (0.0000) | 1(1) |
| Curr | -3.5648 (0.0002) | -3.7595 (0.0001) | 1(0) | -6.4073 (0.0000) | -8.2304 (0.0000) | 1(1) |
| Laword | -4.7375 (0.0000) | -12.0965 (0.0000) | 1(0) | -4.4252 (0.0000) | -8.4817 (0.0000) | 1(1) |

*Source: Authors computation using STATA*
*Notes: *** ** * denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).*

The pooled mean group is employed to highlight the pooling effect of homogeneity restrictions specifically on long run coefficients so that averages across groups are used to obtain group wide mean estimates of the error correction coefficients and the short run parameters of the model (Pesaran, Shin and Smith 1997).

Table 2: Pooled Mean Regression (PMG)

| Variable | Coefficients |
|---|---|
| Import Tariff | -0.320933*** (-2.21) |
| GFCF | .047313*** (3.42) |
| Export | .0258391*** (1.73) |
| Curr | -.375888*** (-3.50) |
| Laword | .6622618*** (5.73) |

*Source: Authors computation nusing STATA*
*Notes: *** *** denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).*

Table 2 above shows the long run coefficients under this assumption of pooled mean regression which says that the long run coefficient are the same across all the groups that make up all the panel. The result of pooled mean group regression indicates that in the long run tariff has a negative and statistical significant effect on FDI at 1% level. GFCF has a positive relationship with FDI at 1% level of significance. Export and law and order posit a

positive and statistical significant effect on FDI. However, corruption depicts a negative and statistical significant effect on FDI at 1% level of significance. It is important to note that one basic assumption of the pooled mean group regression is that the error variances and short run coefficient are not the same for each country in the panel. Similarly, the probability p-value at 1% level of significance shows that there is a long run cointegration. However, any deviation from long run equilibrium is corrected at 66% adjustment speed.

The error variance in the long run equilibrium for Burkina Faso is corrected at 14% adjusted speed while there exists a positive short run relationship gross fixed capital formation and FDI. However, for Congo republic, result shows that there is a long run cointegration and any deviation from long equilibrium is corrected at 99% adjusted speed given the 1% level of significance probability p-value. The result further shows a negative relationship between tariff and FDI in the short run at 1% level of significance.

In Cote – Divoire, the result shows a negative and statistical significance between tariff and FDI in the short run, while there also exists a long run cointegration with which any deviation from long run equilibrium will be corrected at 52% level. More so, in Gabon, there isn't any short run relationship but there exist a long run cointegration with any deviation from long run equilibrium connected at 34% adjustment speed. In Gambia, there is no short run relationship among the series. But there exist a long run cointegration and deviation from long run is corrected at 24% adjustment speed. Surprisingly, there is no long run cointegration for Ghana economy, but there exists a short run relationship between tariff and FDI and it is positive and statistically significant. In Guinea Bissau, result shows that there is a long run relationship and any deviation from long run is corrected at 76% adjustment speed. There exist a long run is relationship between export, corruption and FDI, implying that export and corruption impact a positive and statistical significant effect on FDI in the short run. On Kenya economy, the result shows existence of long run cointegration, however gross fixed capital formation, export, corruption and law and order posit a positive and statistical significant effect on FDI in the short run while GDP has a negative sign on FDI and statistically significant at 1% level. On Malawi economy, a long run cointegration exists in the panel and any deviation in long run cointegration will be corrected at 65% adjustment speed. Similarly, the result for Malawi economy shows no existence of short run relationship among series.

In Mali economy, there is existence of long run cointegration in the panel any deviation in long run can be corrected at 90% adjustment speed on Malawi economy. Only GDP appears to impact on FDI in the short run thus, the result show that there is a positive and statistical significant effect between GDP and FDI in the short run while tariff, gross fixed capital formation, export corruption and law and order have no relationship with FDI in the short run.

On Mozambique economy, the result depicts the presence of long run with adjustment speed of 20% in case of any deviation in the long run. Furthermore, on GDP and gross fixed capital formation have short run effect on FDI in the panel and the effect is positive and statistically significant at 1% level of significance.

In another development, the result depicts the presence of long run cointegration for Namibia economy with 78% adjustment speed in case any deviation arises. Contrarily, there

is no any short run relationship among series in the panel. For Niger economy, there is no any long run cointegration among series in the panel. However, a positive and statistical significant relationship exists in the short run at 1% level. On Nigerian economy, result depicts the existence of long run cointegration with a corrected deviation term of about 65% adjustment speed in case of any deviation in the long run. Similarly, the result further shows that there exists a positive and statistical significant relationship between gross fixed capital formation, corruption and FDI in the short run at 1% level. GDP has a negative and statistical significant effect on FDI in the short run at 1% level.

For Senegal economy, a long run cointegration exists with a corrected adjustment speed at 90% in case of any deviation in the long run. In the short run, only law and order appears to stimulate FDI in the short run. Law and order impact negatively on FDI in the short run and the effect is statistically significant at 1% level.

In Sudan, there is no any long run cointegration thus; there is no short run relationship among series in the panel. On the contrary, in Togo, results shows the presence of cointegration with an adjustment speed of 82% in case any deviation exist. Furthermore, result for Togo shows that there is no any short run effect among series. On Uganda economy, a long run cointegration exists with a 36% adjustment speed to be corrected in case any deviation emerged. The finding also shows that only GDP has appositive and statistical significant effect on FDI in the short run, while the remaining series in the panel have no short run relationship.

For Zimbabwe economy, the result shows the existence of long run cointegration with a corrected adjustment speed of about 85% in case any deviation occurs. However, the result also indicates that there is no any short run relationship among the series in the panel. For Botswana economy, result depicts along run cointegration with an error variance corrected at 74% in case of any deviation in the long run. Similarly, for short run relationship, there is no any short run effect of series on FDI in the panel. The rationale for selecting the pooled mean group estimation over the mean group estimation is that aside of the fact the mean group provides less information relative to the pooled mean group estimation; the rule of thumb permits the application of Hausman test using Hausman mg pmg, sigmamore. However, the rule say If P-value>0.05 then run PMG otherwise MG should be estimated( Hausman 1978). This law also applies in selection of either pmg model over dynamic fixed effect estimation. From the analysis, result indicates that the pooled mean group estimation is most appropriate to be used.

In the analysis of panel auto regressive distributed lagged model ARDL, the differenced operator values in the simulation indicates a short run coefficients and coefficients in parenthesis are long run coefficients with error correction term. Employing the Dynamic Fixed Effect Regression, the table illustrate below:

Table 3: Dynamic fixed effect estimation (DFE) DEP VAR FDI

| Variables | coefficients |
|---|---|
| Import Tariff | -0.0825216*** |
| | (-1.73) |
| GFCF | 0.1896417*** |
| | (4.74) |
| Export | 0.1206325*** |
| | (3.03) |
| Curr | -0.7478445 *** |
| | (-2.09) |
| Laword | 0.6483981** |
| | (1.60) |
| ECT | -0.5521583*** |
| | (-15.34) |

*Source: Authors computationusing STATA*
*Notes: *** *** denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).*

The result of dynamic fixed effect estimation indicates a negative and statistical significant relationship between tariff and FDI at 1% level. This finding confirms with study by (Aqeel and Nishat 2004; and Gastanaga, Jefferery, Nugent and Pashamova 1998). Gross fixed capital formation and export posits a positive and statistical significant relationship with FDI. The parameter corruption indicates a negative and statistical significant effect on FDI at 1% level of significance.

Table 4 Linear Regression Model

| Variables | Fixed effect | Random effect | GLS |
|---|---|---|---|
| Import Tariff | -.0916348*** | -.1176598*** | -.1630552*** |
| | (-2.03) | (-2.79) | (-4.44) |
| Excrate | -.0135984*** | -.0084955*** | -.0014833*** |
| | (-3.06) | (-2.40) | (-0.84) |
| GFCF | .2697046*** | .2463343*** | .2013211*** |
| | (7.23) | (6.84) | (5.98) |
| GDP | 1.06e-13*** | 4.61** | -4.87*** |
| | (1.93) | (1.00) | (-1.86) |
| Export | .1340077*** | .1215107*** | .0710909*** |
| | (4.58) | (4.50) | (4.04) |
| Curr | -.6014356*** | -.578233** | -.1474428* |
| | (-1.67) | (-1.64) | (-0.46) |
| Laword | 1.301598*** | 1.215471*** | .80181*** |
| | (2.61) | (3.16) | (2.37) |

*Source: Authors computation using STATA*
*Notes: *** ** * denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).*

This study applied the correlation test to examine the linear dependence among the regressors so as to avoid the problem of Multicolinearity. Hence, the result indicates that regressors are not linearly dependent on one another. From the finding, none of the regressors have a statistic above 0.80 implying that the model does not suffer multicolinearity.

The fixed effect model employed indicates a negative relationship between tariff and FDI as confirmed by findings of Gastanaga, Jefferery, Nugent & Pashamova (1998). Findings also revealed a negative relationship between Exchange rate, corruption and FDI at 1% level of significance. However, gross fixed capital formation, GDP, export, law and order have positive and statistically significant effect on FDI at 1% level of significance. The result for random effect model also depict a negative relationship between tariffs, exchange rate have negative signs indicating a negative and statistical significant relationship with FDI at 1% level. Corruption shows a negative relationship with FDI as well but significant at 5% level of significance. Similarly, GFCF, export and law and order have positive and statistical significant effect on FDI at 1% level but GDP is positive at 5% level of significance. The result of generalised least square regression indicates a negative and statistical significant relationship between tariff, exchange rate, GDP and FDI in SSA countries at 1% level of significance. Similarly, corruption also posits a negative effect relationship on FDI although at 10% level of significance. However, GFCF, export and law and order posit a positive and statistical significant effect on FDI at 1% level of significance.

To select between fixed effect and random effect, the hausman specification test is employed using Hausman fixed simulation. The Null hypothesis states that the random effect model is appropriate while the alternative model state that the fixed effect model is appropriate. Hence, the random effect in this case is most appropriate given the chi-square value 7.13 and the probability p value 0.2115, indicating not significant. Thus this study opts for the random effect model. The test for serial correlation is administered and the result of Pesaran test for serial correlation indicates that there is no serial correlation. The Null hypothesis states that there is no serial correlation while the alternative states that there is no cross sectional dependence in the series given the probability value 1.5150 at more than 5%. The Breusch and Pagan Lagrangian multiplier test for random effects is employed and the result showed that the model does not suffer from heteroscedastic problem given its significant p-value at less than 5% level of significance.

## 5. Conclusion and Recommendations

The share of FDI in SSA has increased but its share in the global economy is far less compared to Asia. SSA has abundant resources to attract FDI, yet it receives far less compared to other nations due to poor institutions. This study investigates empirically the effect of import tariff policy on FDI in SSA countries. The study covers 24 Sub Saharan African countries spanning the period 1988 to 2017 due to availability of data. The choice of coverage is informed by SAP regime featured in SSA countries within the period, structural economic rigidities, recession and policy reversals. Several studies measured trade volumes (trade ratio) as trade liberalisationhence may not necessarily measure the effect of cross border activities and forms of restrictions/tariffs (see Serge and Yaoxing 2010; Shaheen Kauser and Faqiha 2013 and Adhikary 2012). The study employed the autoregressive distributed lag model ARDL and the result of panel ADF and Phillip Peron test shows that series are stationary at different order of integration. Import tariff and corruption indicates a negative and significant effect on FDI. Gross fixed capital formation law and order and export posit a positive and significant impact on FDI.

The implication for the study is that corruption has negative effect on FDI. There is need to consolidate on the past anti-corruption crusade cannot be understated. The positive

relationship between FDI and export support the export FDI led hypothesis. The implication is export oriented policy is a key strategy to drive FDI inflow. Gross fixed capital formation indicates positive showing that it supports and crowd in FDI into SSA countries. SSA needs to invest heavily in home investment so as to create an enabling environment for FDI inflow into SSA.

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