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Foreign Direct Investment, Trade Openness and Economic Growth in ECOWAS

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Abstract

Some empirical studies conducted to ascertain if foreign direct investment (FDI) and trade openness exert positive effects on economic growth have produced mixed results. The desire to find answers to the poor living conditions of many citizens in developing countries have been the single most pressing challenge of researchers in the field of development economics. The ECOWAS sub-region is characterised by low per capita income, low human capital development index, relatively high maternal mortality rate, and inadequate infrastructural facilities amongst others. This paper investigates the claim that FDI and trade openness leads to economic growth in ECOWAS sub-region using panel data covering the period 2000 to 2016. To confirm stationarity of the series, the panel unit root tests results reveal that all the variables are integrated at order I(1) while the Kao and Pedroni co-integration tests indicate that there exists long-run relationships among the variables used in the study. Using the panel regression analysis methodology, the regression results of the fixed and random effects models, as well as the System Generalised Method of Moments (GMM) suggest that foreign direct investment and trade openness have significant and positive relationships with economic growth. The paper recommends that policymakers in member countries of ECOWAS should consistently formulate and implement policies that would increase their annual inflows of foreign direct investment and their degree of trade openness. Appropriate and responsive policies should emphasize the attraction and efficient utilisation of foreign direct investment and encouragement of foreign trade in order to increase and sustain economic growth in the sub-region.

Keywords: Economic Growth, ECOWAS, Foreign Direct Investment, Panel Data, Trade Openness

JEL Classification: F14, F43, O19, O24

Paper Classification: Research Paper

Introduction

Most member countries of the Economic Community of West African States (ECOWAS) manifest the underlying symptoms of the "two-gap" approach to economic development as put forward by Chenery and other authors (Chenery and Strout, 1956; Chenery and Adelman,

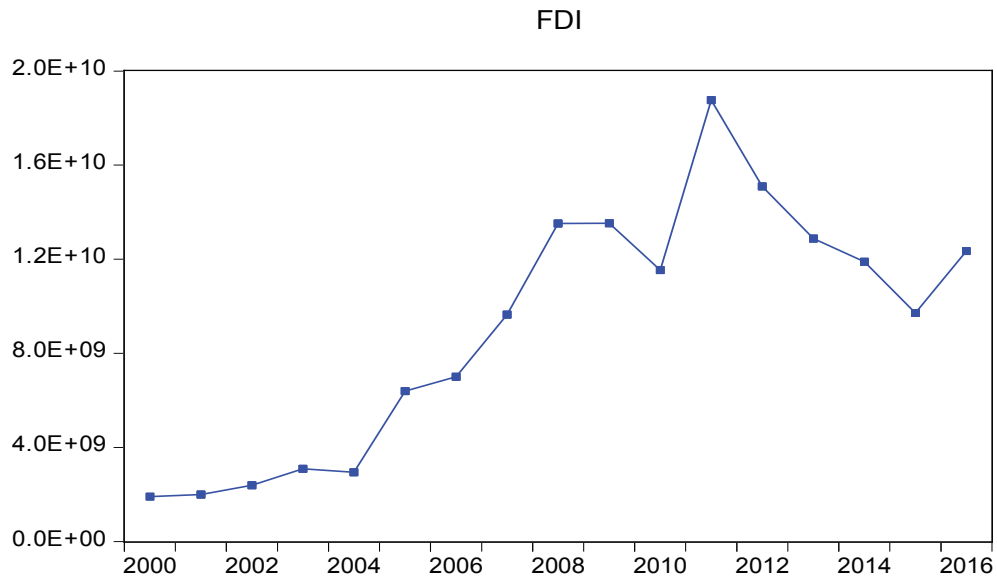
1966). The idea in the approach is that 'savings gap' and 'foreign exchange gap' are two separate constraints to economic growth in developing countries. The gaps arise from the low production levels, low incomes of citizens and shortfall in net export earnings of developing countries which have fuelled what is now generally regarded as the 'vicious circle of poverty' (Jhingan, 2010). Chenery sees foreign inflows in the form of foreign aids and net foreign trade earnings as ways of filling the two gaps.

A major component of capital inflows, foreign exchange, and an important contributor to the GDP of most developing economies is foreign direct investment (FDI) (Insah, 2013). FDIs not only provide foreign exchange to fill the gap between targeted foreign exchange requirements and net export earnings, but also gaps in management, entrepreneurship, technology, and skill which are partly or wholly filled by the local operations of firms owned by foreign investors (Todaro and Smith, 2011). FDI inflows also encourage local enterprises to invest more in ancillary industries thereby propelling increased productive activities.

FDI net inflows for ECOWAS grew steadily from US $1.91 billion in 2000 to US $13.5 billion in 2009 with net inflows reaching an all-time high of US $18.8 billion in 2011. Net inflows, however, fell sharply to US $9.7 billion in 2015. The figure has begun an upward drift with a 26.8 percent rise to US $12.3 billion in 2016. Nigeria and Ghana account for a higher proportion of FDI inflows into the sub-region with US $80.4 billion and US $30.2 billion representing 52 and 19.5 percent share respectively of total net FDI inflows to ECOWAS for the period under review. The total FDI inflow to ECOWAS for the period is US $154.6 billion. The Gambia and Guinea Bissau attracted the least FDI inflows of 0.5 and 0.14 percent respectively of total inflows to the sub-region (World Bank, 2017).

Global flows of FDI fell by 23 percent in 2017 to US $1.43 trillion from US$1.87 trillion recorded in 2016. The share of inflows to Africa also fell by 21 percent from US $53.2 billion

Figure 1: Trend of Net FDI Inflows (US Dollars) to ECOWAS from 2000-2016



Source: World Bank, *World Development Indicators* (2017)

(2.85% of global inflows) in 2016 to US $41.8 billion (2.92% of global inflows) in 2017. This is considered very small when compared with the share of other regions; European Union (28.05% and 21.26% of global inflows in 2016 and 2017), North America (26.44% and 20.98% of global inflows in 2016 and 2017), and Asia (25.42% and 33.29% of global inflows in 2016 and 2017). ECOWAS share of total inflows to Africa's FDI amount to US $10.1 8illion (19.14%) in 2016 and US $12.69 billion (30.39%) in 2017 (UNCTAD, 2018).

Another source of foreign exchange and economic growth for some countries is international trade. The World Bank (1993) asserts that economies of countries with more trade openness perform relatively better than those with less open economies. Trade openness implies the removal or reduction of obstacles to exchange of goods and services between nations. It is often calculated as the ratio of a country's trade (exports and imports) to GDP.

Data from the World Bank show that the average degree of openness to trade for the period 2000-2016 in the ECOWAS sub-region is 73.51 percent. This is not too far from the average trade openness of 82.5, 83.05, 85.83, and 75.88 percent recorded in 2017 by the Arab World, Europe and Central Asia, European Union, and the Middle East and North Africa regions respectively. The maximum ratio of 311 percent was recorded by Liberia in 2007, indicating overdependence on foreign trade, while the minimum degree of openness of 20 percent was posted by Niger in 2016. There are thus large variations in the degree of openness in the sub-region.

Literature Review

Some empirical studies have been undertaken on the relationship between financial deepening and economic growth.

Mahmoodi and Mahmoodi (2016) analysed the relationship between FDI, exports and economic growth in two panels of developing countries consisting of eight European developing countries and eight Asian developing countries. They employed panel-VECM causality methodology to investigate the tri-variate model of FDI, exports, and GDP. Causality results in the European developing countries indicate bi-directional causality between GDP and FDI, and unidirectional causality from GDP and FDI to exports in the short-run. Yussof and Nuh (2015) studied the relationship between foreign direct investment, international trade and economic growth in Thailand using Granger causality tests. The results suggest that FDI and international trade have favourably contributed to the economic growth of Thailand. Similarly, Kakar and Khilji (2011) examined the role of trade openness and FDI in relation to the economic growth of Pakistan and Malaysia for the period 1980-2010. The study found that in the long run, trade openness positively affects economic growth in both Pakistan and Malaysia. The impact of the degree of trade openness also proved to be important with high degree of significance in the long run. Liu, Burridge, and Sinclair (2010) analysed the causal links between trade, economic growth and inward foreign direct investment in China at the aggregate level. The integration and co-integration properties of the quarterly data were analysed. The paper found bi-directional causality between economic growth, FDI, and exports. The authors opine that economic development, exports, and foreign direct investment appear to be mutually reinforcing under the open-door policy.

While many scholars assert that FDI and trade openness have positive effects on economic growth in some countries, some others have found that there are no substantial effects of the variables on economic growth. Early studies on FDI by Singer (1950) and Prebisch (1968) suggest the existence of a negative relationship between FDI and economic growth. The explanation is that countries may receive limited benefits of FDI if most of the benefits of FDI accrue to the foreign

investor country. It may also be due to the relatively small fraction of FDIs that countries in Africa have received (Obadan, 2012).

Makhetha and Rantaoleng (2016) investigated the long run relationship among FDI, trade openness and economic growth in Lesotho for the period 1980-2011. The VAR Granger causality shows a unidirectional causal relationship spanning from trade openness, FDI to output and from output, FDI to trade openness. Similarly, Adhikary (2011) using VECM on a time series data covering the period 1986-2008 discovered a negative relationship between trade openness and economic growth. Halit (2002) analysed the relationship between trade openness and economic growth in developing countries. The result indicated a negative relationship between trade openness and economic growth.

Theoretical Framework and Methodology

Theoretical Framework

The theoretical foundation for the proposition that FDI can promote economic development was embedded in the 2-gap model. The model asserts that development may be endangered by the existence of the savings gap and foreign exchange gap in the developing countries (Iyoha, 2004). The theoretical framework in this study, therefore, operationalises the Neoclassical Solow-Model of a small, open economy within an augmented financial gap model. This permits a simultaneous analysis of the correlations between economic growth, foreign direct investment and trade openness dynamics (Ogbebor, Okungbowa, and Adegboye, 2018)

Given a neoclassical production function of the form:

$Y = K^{\alpha}L^{1-\alpha}$

(0< α < 1), K: capital stock, L: labour input (1)

and the per capita version of the form:

Capital-labour ratio

GDP (or its components) grows at a rate of

$\delta Y = \alpha\delta K + (1- \alpha)\ \delta L$ (2)

Where δ indicates the rate of change. From the neoclassical assumptions, the growth equation yields:

$\delta y = \delta Y - n = \alpha(\delta K - n) = \alpha\delta k$ (3)

The rate of growth of the capital stock is determined by the investment ratio and the capital-output ratio ($v \equiv K/Y$):

The capital-output ratio is an increasing function of the capital-labour ratio, v:

In the two-gap analysis, investment ratio (I/Y) is proposed to be given as:

Where *s* is domestic savings ratio, *kim* is the capital import to GDP ratio, and *pb* is primary trade balance to GDP ratio. Substituting (5) into (4) gives,

And therefore,

The formulation in (8) demonstrates that whenever the capital-labour ratio decreases or when the aid or FDI to GDP ratio increases, the rates of growth of capital stock and GDP will rise. Therefore, an increase in the capital import ratio (Δkim) has a rich positive effect on economic growth in all sectors as much as an increased savings ratio (i.e., Δs = Δkim).

Model Specification

The model specified in this study is based on the theoretical framework presented as well as previous studies on the subject as cited in the literature review. In the model, it is hypothesised that there is a causal relationship between economic growth (PCY), ratio of FDI to output (FDI/GDP), the degree of trade openness (OPENX) and other control variables such as domestic credit to the private sector as a proportion of GDP (CPS/GDP), and the ratio of investment to GDP (INV/GDP), The functional relationship specified for the study is:

PCY = f (FDI/GDP, OPENX, CPS/GDP, INV/GDP) ……..…….. (9)

The dependent variable used in this model to proxy economic growth is Per Capita Income (PCY). The explanatory variables of focus are foreign direct investment (FDI/GDP), degree of trade openness (OPENX). To control for other factors which affect economic growth, variables used were often employed in the growth literature such as the ratio of domestic credit to the private sector to GDP, and the ratio of Investment to GDP. All the variables are expected to exert positive effects on economic growth. Foreign direct investment has been acknowledged as an important determinant of economic growth, especially in developing countries. It works through increases in the levels of productivity in a country hence its coefficient is expected to be positive. The degree of openness to foreign trade has been largely found to exert a positive impact on economic growth though some studies opine that the relationship may be insignificant or even negative for some developing countries. Similarly, deeper financial systems have long been associated with economic growth in the economics literature. The financial sector is seen as the central nervous system of any economy, hence its importance in the economic development of any nation. The financial system plays a key role in the mobilisation and allocation of savings for productive purposes, provides the needed structures for monetary management and serves as the basis for managing liquidity in the economy (Sanusi, 2012). Investment (INV) is proxied by gross fixed capital formation and it is acknowledged as a propeller of economic growth in economic theory. It is expected that the greater the level of investment in an economy, the higher would be the level of economic growth, *ceteris paribus*.

The econometric form of model (9) takes a panel regression form which assumes cross-sectional heterogeneity (cross section effect) and period heterogeneity (time effect). In specifying the panel regression model, cross sections (ECOWAS countries) and year dummies (2000-2016) are included. This will ensure that biases due to heterogeneity in the data set are minimized. The panel multiple regression model with an error term (ε_t) is specified in econometric form as;

$$PCY_{it} = \beta_0 + \beta_1 FDI/GDP_{it} + \beta_2 OPENX_{it} + \beta_3 CPS/GDP_{it} + \beta_4 INV/GDP_{it} + \alpha_i + \varepsilon_{it} \quad \ldots\ldots (10)$$

The βs are parameters, α_i is the unobserved country effect, ε_{it} denotes the disturbances; i and t denote cross-section and time indicators, respectively.

Where:

PCY_t = current Per Capita Income

FDI/GDP_t = current Foreign Direct Investment to GDP ratio

$OPENX_t$ = current degree of Trade Openness

CPS/GDP_t = current Domestic Credit to Private Sector to GDP ratio

INV/GDP_t = current Investment to GDP ratio

α_i = unobserved individual (country specific) effects and

ε_{it} = error terms over the cross-section and time

i = individual country

t = time

The a priori expectations for the explanatory variables are: 0 β1, β2, β3, and β51; β4 < 0.

Method of Data Analysis

Generally, there are many differences, both institutional, policy, and macroeconomic environments that characterize countries in the ECOWAS sub-region (Ogbebor, Okungbowa, and Adegboye, 2018). As a result, it is likely that the analysis of the relationship between foreign direct investment, trade openness and economic growth without considering such differences would distort our generalization and estimation process. Hence, this study adopted the panel data analysis.

The panel data analysis captures the aforementioned characteristics by including the individual country's specific effects which may be random or fixed. Moreover, the fixed effects model could be costly in degrees of freedom because it is equivalent to the use of a dummy variable for every country. The random effects model, on the other hand, assumes the independence between the error term and the independent variables. In this study, fixed effects and random effects panel models were employed to specify the relationship between financial deepening and economic growth in ECOWAS. The Hausman test would subsequently be used to select between the fixed and random panel estimation techniques. The system GMM regression model will also be used in this study to provide a basis of comparing the results of the fixed and random effects regression models.

Data

The data used in this study are panel data; a combination of time series and cross-sectional data. The study uses data of fifteen (15) countries which make up the ECOWAS sub-region. The countries are Ghana, Liberia, Nigeria, Benin, Burkina Faso, Senegal, Cabo Verde, Cote D'Ivoire, Gambia, Togo, Guinea-Bissau, Mali, Niger, Sierra Leone, and Guinea. All the data are obtained from the World Bank *World Development Indicators* database (2017).

Empirical Analysis

Descriptive Statistics

Descriptive statistics of the data as in Table 4.1 is depicted below in order to reveal some underlying features. The table shows that the average annual per capita income (PCY) for the fifteen ECOWAS countries for the period under review is $630.32. This is considered very low

when compared with average annual PCY in some advanced and emerging economies such as Australia, Belgium, Brazil, Britain, China, France, South Africa, and South Korea which stand at $33,541, $32,299, $6,378, 37445, $3,177, $30,721, $4,374, and $16,618 respectively for the period 2000 to 2016 (WDI, 2017). The maximum and minimum values of the variable suggest that there is a wide gap among the countries in terms of per capita income in the sub-region. This is confirmed by the high standard deviation value of 562.94 which indicate that many of the values are highly dispersed from the mean. The Jarque-Bera (J-B) value is highly significant at the 1 percent level indicating that the density function of the series is not normally distributed. The null hypothesis of the J-B test is that the variable is normally distributed; hence we reject the null hypothesis and accept the alternative hypothesis that the series is non-normally distributed. The skewness is positive at 2.22 and indicates that the per capita income figures for most of the countries lie to the left of (are less than) the mean value. The kurtosis value is high at 7.72 and indicates the presence of extreme values which may generate heteroskedastic variations in the data. The data set is highly leptokurtic and shows that extreme outliers in the per capita income values may generate heterogeneity issues in the analysis.

Table 4.1: Descriptive Statistics

Variable	Mean	Max	Min	Std. Dev.	Skew	Kurt	J-B	Observations
PCY	630.83	2867.65	70.16	562.94	2.22	7.72	446.27	240
FDI/GDP	5.43	89.47	-0.90	9.76	5.48	41.69	17176.91	240
OPENX	73.51	311.35	20.72	35.78	3.51	21.54	4175.58	240
CPS/GDP	16.10	65.74	0.41	12.34	1.99	7.74	406.82	240
INV/GDP	19.94	51.46	1.10	8.77	0.83	3.86	37.04	240

For the CPS/GDP ratio, the average value is 16.10. This is high revealing that for some countries in the sub-region, domestic credit to the private sector accounts for a large proportion of their overall GDP. The extreme values (maximum and minimum values of 65.74 and 0.41 respectively) indicate that while in some countries, CPS account for as much as 65 percent of their GDP, other countries (like Guinea-Bissau in some years) have quite negligible contributions of CPS to GDP.

The low values of skewness of the INV/GDP and INF variables reveal that most of the countries' averages are around the mean value. The J-B values for all the series are significant at the 1 percent level and indicate that the series are not normally distributed. This outcome clearly shows that the use of panel data analysis procedure for the estimation of the relationships in this study is appropriate considering the heterogeneity in all the data series.

Panel Stationarity Test

Unit root (stationarity) properties of the individual variables were checked. To do this, summary of the major panel unit root tests methods of Levin, Lin & Chu (LLC), Im, Pesaran & Shin (IPS), ADF Fisher Chi-Square and PP Fisher Chi-Square were applied. This is due to the fact

that the LLC and IPS (the two major panel unit root tests commonly used in the literature) may produce conflicting stationarity results for some of the variables (as in the case of the INV/GDP variable), making it difficult to take a decision on the whether the variable is stationary or not. The summary of the tests is presented in table 4.2 below.

Table 4.2: Summary of panel unit root tests

Variable	LLC Test/ (Probability)	IPS Test/ (Probability)	ADF Fisher/ (Probability)	PP Fisher/ (Probability)	Remark
PCY	-5.88276/ (0.0000)	-5.30455/ (0.0000)	82.1834/ (0.0000)	132.248/ (0.0000)	Stationary I(1)
FDI/GDP	-5.63422/ (0.0000)	-6.60654/ (0.0000)	99.9234/ (0.0000)	190.557/ (0.0000)	Stationary I(1)
OPENX	-3.07102/ (0.0011)	-4.63330/ (0.0000)	73.1977/ (0.0000)	145.834/ (0.0000)	Stationary I(1)
CPS/GDP	-3.00055/ (0.0013)	-4.99213/ (0.0000)	79.6528/ (0.0000)	182.877/ (0.0000)	Stationary I(1)
INV/GDP	0.24554/ (0.5970)	-5.54581/ (0.0000)	84.8077/ (0.0000)	162.407/ (0.0000)	Stationary I(1)

Source: Authors compilation from Eviews 9

The stationarity tests reveal that all the variables are integrated at order one (that is, after first differencing).

Panel Co-integration Test

We further conduct a panel co-integration test to confirm if the variables have long-run relationships using the Kao and Pedroni Residual co-integration tests. The Kao test in Table 4.3 below reveals that there is co-integration and long-run relationship between all the variables in the model. The null hypothesis of no co-integration is rejected at the 5 percent level of significance.

Table 4.3: Kao Co-integration Test

Null Hypothesis: No cointegration

	t-Statistic	Prob.
ADF	1.940174	0.0262
Residual variance	4662.212	
HAC variance	456.1776	

For the Pedroni test, a majority of the outcomes are indicative of co-integration among the variables when three different tests were conducted under the trend assumptions of no deterministic trend, deterministic intercept and trend, and no deterministic intercept and trend. Specifically, 18 out of the 33 outcomes passed the significance test suggesting that there exist co-integration among the variables.

Table 4.4: Pedroni Co-integration Tests

Outcome	No Deterministic Trend	Deterministic Intercept and Trend	**No Deterministic Intercept and Trend**
Panel v-Statistic	-4.186474 (1.0000)	-5.739521 (1.0000)	-3.001301 (0.9987)
Panel v-Statistic (Weighted)	-4.186474 (1.0000)	-5.739521 (1.0000)	-3.001301 (0.9987)
Panel rho-Statistic	1.387574 (0.9174)	3.294424 (0.9995)	0.387638 (0.6509)
Panel rho-Statistic (Weighted)	1.387574 (0.9174)	3.294424 (0.9995)	0.387638 (0.6509)
Panel PP-Statistic	-4.445454 (0.0000)*	-31.84142 (0.0000)*	-5.297263 (0.0000)*
Panel PP-Statistic (Weighted)	-4.445454 (0.0000)*	-31.84142 (0.0000)*	-5.297263 (0.0000)*
Panel ADF-Statistic	-2.161429 (0.0153)*	-8.456815 (0.0000)*	-3.189690 (0.0007)*
Panel ADF-Statistic (Weighted)	-2.161429 (0.0153)*	-8.456815 (0.0000)*	-3.189690 (0.0007)*
Group rho-Statistic	3.103387 (0.9990)	4.833236 (1.0000)	2.150484 (0.9842)
Group PP-Statistic	-4.279424 (0.0000)*	-34.77986 (0.0000)*	-5.857168 (0.0000)*
Group ADF-Statistic	-1.477086 (0.0698)*	-8.457527 (0.0000)*	-3.019331 (0.0013)*

**passes significance test by at least 10 percent)*
Source: Authors compilation from Eviews 9

Based therefore, on a majority of the results from the Kao and Pedroni tests, we conclude that there is a long run relationship between the variables.

Regression Analysis

Fixed Effects Model, Random Effects Model, Hausman Test and Generalized Method of Moments (GMM)

The panel data estimation procedure employed in this section assumes that the biases in the pooled data could either come from cross-sectional heterogeneity or time series (periodic) variations. As a result, fixed and random effects models estimation tests were conducted and used the Hausman test of heterogeneity to determine the best effects model (random or fixed) to be adopted in the analysis. The estimation of the model is also carried out using the System GMM to enable us to compare the results of the fixed or random effects model. The summary of the estimation results of the fixed and random effects models, the Hausman test and the GMM are contained in Tables 4.5 below.

Table 4.5: The Estimation Results – Fixed Effects, Random Effects & GMM

	Fixed Effects Model	Random Effects Model	GMM
Variable	**Coefficient (p-value)**	**Coefficient (p-value)**	**Coefficient (p-value)**
FDI/GDP	11.93190 (0.0011)	11.93190 (0.0011)	11.93190 (0.0008)
OPENX	3.890938 (0.0003)	3.890938 (0.0003)	3.890938 (0.0002)
OPENX(-1)	4.039727 (0.0000)	4.039727 (0.0000)	4.039727 (0.0000)
CPS/GDP	25.16753 (0.0000)	25.16753 (0.0000)	25.16753 (0.0000)
INV/GDP	-11.04987 (0.0001)	-11.04987 (0.0001)	-11.04987 (0.0000)
C	-10.12709 (0.0739)	-10.12709 (0.0738)	-10.12709 (0.0647)
Diagnostics and Summary Measures			
R-squared	0.318970	0.318970	0.318970
Adjusted R-squared	0.255850	0.303421	0.303421
F-statistic	5.053405	20.51436	n/a
Prob(F-statistic)	0.00000	0.00000	n/a
Durbin-Watson stat	1.854444	1.854444	1.854444
Hausman Test (p-value)		0.0000000 (1.0000)	

Source: Authors compilation from Eviews 9

First, the result of the Hausman test was analysed. The null hypothesis of the test is that the random effect model is the most appropriate. The Chi-square statistic value for the equation is highly insignificant with a probability of 1.0000. From the result, the null hypothesis cannot be rejected that the random effect model is the best model to be employed. Hence, the best method to apply is the random effects model. Though in this study, both the fixed effects and random effects estimates are reported in order to provide a comparison, however, use the results of the random effects model will be used for analysis. The results of the GMM regression as above are similar to those of the random effects model and thus can be said to validate the Hausman test which suggests the random effects as the best for the study.

The adjusted coefficient of determination (adjusted R squared) value of the random effects model of 0.30 is low, suggesting that only 30 percent of the systematic variations in per capita income in ECOWAS are captured by all the variables in the model. The low R squared value is however not a major issue in the result since as Iyoha (2004) noted, the coefficient of determination for panel data studies are sometimes low due to heterogeneity effects. The F-statistic (5.05) and corresponding p-value (0.0000) indicates that a significant relationship exists between per capita income (economic growth) and all the independent variables combined. The Durbin-Watson statistic of 1.85 suggests there is no likelihood of autocorrelation.

The individual effects of the explanatory variables on the dependent variable are determined based on the coefficients and p-values of the series. From the results, the two variables of interest (FDI/GDP and OPENX) in the model are significant. The foreign direct investment variable is significant at the 1 percent level with a positive coefficient of 11.93. This indicates that FDI has a positive and very significant impact on economic growth in ECOWAS. The coefficient of 11.93 indicates that a unit increase in FDI will lead to 11.93 units rise in per capita income. Thus, FDI has the potential to cause remarkable growth in the economies of ECOWAS. The result is consistent with the studies of Sakyi, et al (2015), Yussof and Nuh (2015), and Liu, et al (2010) which found a positive correlation between FDI and economic growth.

Similarly, the degree of openness variable passes the significance test at the 1 percent level and has a positive coefficient of 3.89 signifying that a unit increase in OPENX will cause a far more than proportional increases in per capita income. The one period lagged OPENX also proved to be very significant with a coefficient of 4.04. This shows that in general, foreign trade is one of the major drivers of economic growth in countries in the ECOWAS sub-region and confirms the results of studies conducted by Shayanewako (2018), and Kakar and Khilji (2011).

The financial deepening control variable of CPS/GDP variable is equally significant at the 1 percent level and positively signed. This conforms to a priori expectation of a significant positive relationship between financial development and economic growth. The result is consistent with the studies of Darrat (2016), Alrabadi and Kharabsheh (2016), Kiran, Yavus, and Guris (2009), and Khan and Senhadji (2000) which found a positive correlation between financial deepening and economic growth. The second control variable in the model (INV/GDP) is significant but negatively signed. This contradicts the a priori expectation of a positive relationship between investment and economic growth.

Conclusion and Recommendations

This study set out its objective to empirically investigate the correlations between FDI, trade openness and economic growth in the ECOWAS sub-region. In order to estimate the coefficients of the variables employed in the study, several econometric tests were conducted using panel data covering the period 2000-2016. The regressions which were carried out using the fixed and random effects models and the system generalised methods of moments (GMM) through different explanatory variables show that FDI and trade openness exerted very significant and positive influence on economic growth in ECOWAS. Specifically, a unit increase in FDI and trade openness leads to a more than proportionate increase in economic growth. The level of financial development indicator also proved to be a major determinant of economic growth in the sub-region. This shows that member countries of ECOWAS stand to reap tremendous benefits in their living standards if they execute effective policies that would increase their annual inflows of foreign direct investment and deepen their degree of trade openness and financial development.

The paper recommends that policymakers in member countries of ECOWAS should consistently formulate and implement policies that would increase their annual inflows of FDI and their degree of trade openness. The volume of FDI inflows to ECOWAS and Africa is considered very small compared with other regions of the world such as the European Union, North America, and Asia. Appropriate and responsive policies should emphasize the attraction and efficient utilisation of foreign direct investment and encouragement of foreign trade in order to increase and sustain economic growth in the sub-region.

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