

EFFECT OF TRADE POLICY REGIME ON THE NEXUS BETWEEN FOREIGN CAPITAL INFLOWS AND ECONOMIC GROWTH IN NIGERIA

¹TALIAT OLAYINKA EMIOLA & ²AKINOLA CHRISTOPHER FAGBOHUN

¹Department of Economics, Lead City University, Ibadan, Nigeria.

emiola.tailat@lcu.edu.ng; Telephone: +234-805-228-3536

²Department of Economics, Lead City University, Ibadan, Nigeria.

akinfagbohun@yahoo.co.uk Telephone: +234-803-344-0723

ABSTRACT

In this study, an examination is conducted on the link between trade policy regime and the nexus between foreign capital inflows and economic growth in Nigeria. The study adopted Autoregressive Distributed Lag (ARDL) estimation technique and interacted trade openness and foreign capital inflows to measure Bhagwati hypothesis in the Nigerian economy. The result revealed that in the long run, export promotion plays complementary roles with both official development assistance and foreign direct investment to effect a positive and significant change in the Nigerian economy. In the short run however, both official development assistance and foreign direct investment, as well as their interactions with trade policy regime are all insignificant. The study recommended that Nigeria should continue its policy of export promotion and with low interest rate and moderately encouraging exchange rate, more of foreign direct investment and official development assistance can be attracted into Nigeria in order to attain a better economic growth.

Keywords: Trade Policy Regime, Export Promotion, Foreign Capital Inflows, Economic Growth.

JEL Classification: F21, O24.

1. INTRODUCTION

From time immemorial, most countries of the world have come to the realization that they need the support of other countries for them to achieve their dream of economic growth and development. In fact, ever since the days of the mercantilists and classicals, it has been established that the finance of development only through internal source is not sufficient to achieve the level of investment desired for growth. Developing countries generally have seen foreign capital inflows complementing savings as a source of capital for investment growth (Imoughele, 2020). Capital inflows into a country comes from different sources. The sources include foreign direct investment, grants and aids, mostly to the government of developing economies from the developed nations, and remittances from migrants who live and work in other countries. It also includes borrowing from other countries or international financial institutions for the development of strategic infrastructure.

Chenery and Strout (1966) formulated the two-gap model of economic growth of developing countries. They stressed that the two obstacles limiting growth in developing countries are savings and foreign exchange gaps and that foreign capital inflows in general can fill the gaps. It is in view of this that developing nations see foreign capital inflows as antidotes to their resource constraint problems towards achieving a target growth and development of their economies. Apart from the two gap model of growth, many empirical studies have also supported a positive relationship between foreign capital inflows and economic growth in developing countries (Adamu, 2013; Ikpesu, 2019, Kapingura, 2018). official development assistance and foreign direct investment

Foreign capital inflows have been coming to Nigeria since 1970s and it has been on an increasing magnitude since then. Data from World Bank Indicators shows that the inflows of foreign direct investment and official development assistance expressed as percentages of GDP was relatively high but fluctuating between 1989

and 1999, this was a period when the country adopted a foreign trade policy of export promotion. Both foreign direct investment and official development assistance was however low and relatively stable between 1981 and 1985, when the foreign trade policy was import substitution. While foreign direct investment and official development assistance averaged 2.01% and 0.50% respectively between 1989 and 1999, the duo stood at 0.38% and 2.01% respectively between 1981 and 1985. This suggests that Nigeria's foreign capital inflows performed better with a policy of export promotion than the period of import substitution. However with the present day policy tending towards export promotion, foreign direct investment has been very low averaging 0.78% between 2015 and 2019 while on the other hand, official development assistance has continued to increase and averaging 0.75% within the period.

The role of foreign trade policy regime in economic growth cannot be overemphasized in many developing countries especially in Nigeria. Kohpaiboon (2003) established that foreign trade policy regime, a choice between import substitution or export promotion, is an important factor in the determination of the effect of foreign capital inflows on economic growth in developing countries. Prior to Kohpaiboon's study, Hjertholm, Laursen, and White-Fellow (1998) has recommended that the direction of capital inflows in filling resource gaps be based on the nature of growth constraints. According to this study, capital inflows should be directed at import substitution in countries where the problem of growth has to do with low capacity utilization of the existing resources. All that is needed is to adopt import substitution using the capital inflows to fill the savings gap and increase investment and production levels within the economy. The study further stresses that output will therefore increase the level of savings and close the savings gap in the economy. On the other hand, where the dominant gap is foreign exchange, the capital inflows should support export promotion to boost and diversify the export base of the economy.

In fact, Bhagwati (1973) pioneered the importance of policy regime in the growth enhancing effect of foreign direct investment, some empirical works were later carried out to test the hypothesis but these empirical works were cross-country studies. Cross-country studies have been known for its assumption of factor-homogeneity across the sample countries, but it is evident that structural and institutional differences exist between countries thus making such an examination country-specific so important. Country-specific studies in this particular area are few and in particular, are not found on Nigeria in the literature. In addition, the contradicting effects of trade policy regime at one time or the other as highlighted by figures above have made an investigation into the effect of trade policy regime on capital inflows-growth nexus in Nigeria a necessity. This constitutes a gap in literature and this study is to fill the gap.

2. REVIEW OF LITERATURE

2.1 Theoretical Literature

This study reviews the Chenery and Strout (1966)'s two-gap model of economic growth and the structuralist theory of economic development.

2.1.1 The Two-Gap Model of Economic Growth

The two-gap theory developed by Chenery and Strout (1966) explains the importance of foreign capital inflows in augmenting a country's domestic savings. The theory posits that foreign capital inflow is important because it fills the resource gaps occasioned by poor savings and investments, as well as low export earnings that result from trade imbalances, thereby contributing to economic growth in developing countries. The foregoing claim has been the overriding economic objective of most developing countries attracting foreign capital inflows in the form of aid and foreign direct investment for many years (Arhenful, 2013). This theory recognizes investment as the catalyst for growth in the developing economies but that the rate of investment is evidently short of its desired rate of achieving the target growth rate in these poor countries. This is adduced to their low saving culture hence the demand for imported capital resources at least to begin with. In order to ease off the gaps associated with the developing nations including Nigeria, the two-gap model recommends the need to attract substantial inflow of foreign aid and foreign direct

investment to compensate for the shortfalls in savings and foreign exchange (Orji, Uche and Ilori, 2014) and the desired level of investment can be achieved.

Literature has however identified filling the gaps as advocated by the original Chenery gap model as even a necessary condition for growth and that it is not a sufficient condition, rather studies have emphasized that it is 'closing the gaps' in the long run that can sustain growth and development of the developing countries (Ude, 2018; Hjertholm, Laursen, and White-Fellow, 1998; Feldstein and Horioka, 1980). However in closing the gaps, emphases have been given to the role of foreign trade regime pursued by a country in using capital inflows to close the resource gaps and achieve economic growth in developing countries. Existing studies have suggested that foreign capital inflows should be directed at producing 'import substituting goods' to complement domestic saving in boosting production and growth (Brecher, 1992; Dutta and Ahmed, 1999). They emphasize that the country should use the capital inflows to invest in the production of the consumption goods they import and rely less on further importation.

Modern studies however propose that capital inflows should support export promotion, especially in countries with one or few major export goods where the boosted export earnings lead to the problem of Dutch disease (Akbar and Naqvi, 2000; Allaro, (2012); Giles and Williams, 2000). The case of Netherland with natural gas in the sixties, Zambia (copper) in the nineties, and that of the oil boom in Nigeria in the seventies are few examples where the major export sector flourishes and other sectors suffer currency appreciation. A large inflow of foreign capital may therefore be directed at production of other export commodities and encourage competitiveness of exports thus helping in boosting the country's export base as put forward by Kohpaiboon (2003).

2.1.2 Structuralists Theory of Economic Development

Structuralists' theories provide justification for a protectionist policy of import substitution strategy. They divide the countries of the world into the centre (the developed nations), and the fringe (the developing countries). Trade between the two was viewed as a source of impoverishment in the developing countries whereas it enriches the developed countries (Singer, 1984). The theories maintain that trade brings growth for the developed nations with little or no gain at all for their developing counterparts. Studies (Sunkel, 1989; Prebisch, 1984) have also expressed concerns on the ground that in return for the benefit of liberalization, a developing country may have to pay a higher price in terms of slow productivity growth, worsening income distribution, and lack of industrialization.

Import substitution protagonists went further stating that poor countries should not trade at all with the developed, the reason for protection and the in-ward-looking strategy being that of infant industry argument which underlines the need for protecting firms at the beginning of their lifetime. Traditional trade models (Rodriguez, 1974 for instance) again consider the possibility of an optimal level of protection for a nation that can influence the terms of trade. Brecher (1992) indeed stressed that protection can raise income when there is no full employment. After years of implementation, import substitution strategy failed to attract development to most developing countries and the strategy was replaced by an outward-looking export promotion strategy similar to that which the four Asian 'tiger' countries adopted (Todaro and Smith, 2006).

2.2 Empirical Review

Akande and Ola-David's (2006) study explores the application of the theoretical prescriptions of the two-gap model to the Nigerian economic growth situation from 1970-2007. The study variables including GDP, domestic investment, foreign direct investment, export, import, and foreign aid are confirmed to have a long run relationship by the cointegration test. The results of the autoregressive analysis show that foreign aid (a component of foreign capital inflows) does not affect economic growth in Nigeria. FDI (another component of foreign capital inflows) has effect on growth, but the effect seems volatile. The results confirm the transfer paradox which posits that foreign aid tends to immiserate the recipient country. The study finds no theoretical or empirical justification for the assumption that filling a trade gap by aid will boost trade and growth in the Nigerian economy.

Still on capital inflows-growth conditional relationship, Burnside and Dollar (2000), using cross-sectional data, examines the impact of aid on growth, conditional on the quality of economic policy. The study uses a two stage least square technique running regressions with per capita income and aid on independent variables institutional quality, financial deepening, budget surplus, inflation, trade openness and aid. Finding shows that aid (ODA) has a positive impact on growth in developing countries with good fiscal, monetary and trade policies, and that in the presence of poor policies, aid does not propel growth. The study concludes that aid contributes positively to growth only in good policy environment.

Bakare, Abubakar and Bashorun, (2014)'s work investigates the existence of the gaps in the Nigeria output level. The study adopts cointegration and error correction mechanism to examine the relationship between GDP, FDI and other independent variables. The study finds out that FDI bridges the resource gap but it is not sufficient in the short run and not reliable in the long run as it promotes importation in both periods, which can widen the existing exchange rate gap. Finally, the study finds that FDIs in Nigeria are more in the area of export promotion than import substitution.

Irwin (2019) examines three strands of work on the effect of trade reforms on economic growth. These works include cross-country regressions focusing on within-country growth, synthetic control methods on specific reform episodes, and empirical country studies looking at the channels through which lower trade barriers may increase productivity. A consistent finding is that trade reforms have a positive impact on economic growth, on average, although the effect is heterogeneous across countries.

Kohpaiboon (2003) examines the role of trade policy regimes in conditioning the impact of foreign direct investment on growth performance in investment receiving (host) countries through a case study of Thailand. The methodology involves estimating a growth equation, which provides for capturing the impact of FDI interactively with economic openness on economic growth, using data for the period 1970-1999. The results support the 'Bhagwati' hypothesis that, other things being equal, the growth impact of foreign direct investment tends to be greater under an export promotion trade regime compared to an import-substitution regime.

Khamfula (2007)'s study analyses how foreign direct investment determines growth within the new growth-theory framework in the presence of trade reforms and corruption. The study incorporates and extends the empirical model employed by Balasubramanyam et al. (1996) by employing fixed effects (within) regression models in the context of developing countries characterised by two different categories of trade policy regimes – export promotion and import substitution. The result shows that a strong negative influence on foreign direct investment and growth in both import substitution and export promotion countries. However, when the level of corruption is interacted with domestic investment, the influence on foreign direct investment is positive and significant for import substitution countries only. The other interesting outcome of the study is the effect of the interaction term between foreign direct investment and the corruption perception index on economic growth, which is found to be greater in magnitude for the export promotion countries than for the import substitution countries.

The review of the literature above highlighted various theories on the trade policy regime through which foreign capital inflows can impact on economic growth. This study is therefore set to empirically examine the role of foreign trade regime in the foreign capital inflows-economic growth nexus in Nigeriathat is completely missing in the literature

3. METHODOLOGY

The study's model that captures the role of trade policy in foreign capital inflows-growth relationship is adopted from Kohpaiboon (2003) and Saibu (2014). The model equation is thus expressed as

$$GDP_t = f(CAP_t, LABF_t, FCPI_t, TOPEN_t, FCPI*TOPEN_t, EXCR_t) \quad (3.1)$$

Where GDP_t is the endogenous variable denoting gross domestic product, CAP_t , $LABF_t$, $FCPI_t$, $EXCR_t$, and $TOPEN_t$ respectively are capital, labour force, foreign capital inflows, exchange rate and trade openness. $FCPI*TOPEN_t$, an interaction between foreign capital inflows and trade openness, is a measure of trade policy regime of export promotion or import substitution (Kohpaiboon, 2003). The use of the interaction

between foreign capital inflows and trade openness, as a measure of trade policy regime is also in line with Bhagwati, 1973. Foreign capital inflows is composed of official development assistance and foreign direct investment, hence $FCPI_t (= FDI, ODA)$, where $ODA_t =$ Official Development Assistance and $FDI_t =$ Foreign Direct Investment. Writing out the equation explicitly and adding the econometric error term, equation (3.1) then becomes

$$GDP_t = \alpha_0 + \alpha_1 CAP_t + \alpha_2 LABF_t + \alpha_3 FCPI_t + \alpha_4 TOPEN_t + \alpha_5 FCPI_t * TOPEN_t + \alpha_6 EXCR_t + \varepsilon_t \quad (3.2)$$

where $\alpha_0, \alpha_1, \alpha_2, \alpha_3, \dots, \alpha_6$ are estimating parameters of GDP_t with respect to $CAP_t, LABF_t, FCPI_t, TOPEN_t, FCPI_t * TOPEN_t,$ and $EXCR_t$ respectively and ε_t , the error term.

This equation 3.2 relates foreign capital inflows, trade policy regime and economic growth with one another. The equation was estimated and the various coefficients were analysed. The components of foreign capital inflows are foreign direct investment and official development assistance, therefore the estimations were conducted differently with foreign capital inflows equals foreign direct investment, and foreign capital inflows equals official development assistance.

The equation also gives room to assess the role of joint interaction of foreign capital inflows and trade policy regime as a different factor influencing economic growth in the country. In order to examine the role of trade policy regime in the relationship between foreign capital inflows and economic growth, the coefficients α_3 and α_5 provide explanations. The coefficient α_3 itself gives the effect of foreign capital inflows on economic growth while α_5 is the Bhagwati coefficient stressing the significant role of trade policy regime in the host country's foreign capital inflows benefit.

The effect of foreign capital inflows on growth is given by the partial derivative of economic growth in (3.2) with respect to foreign capital inflows, $\alpha_3 + \alpha_5 * TOPEN$. As far as Bhagwati hypothesis is concerned, the sign of α_5 is expected to be positive in the case of export promotion policy. That is, the contribution of foreign capital inflows to growth will be an increasing function of trade policy regime. The sign of α_3 can be ambiguous; it can be positive or negative depending on the nature of the foreign capital inflows' effect on growth itself within the sample period. Whereas α_5 captures the effect of trade policy regime operating through foreign capital inflows on growth. Even when α_3 is negative, it does not really mean that the foreign capital inflows contribution is negative. Whether the contribution is negative or not will depend on the size of the coefficient of the interactive term of foreign capital inflows and trade policy regime, α_5 rather than α_3 .

The a priori expectation is that capital stock, labour force and exchange rate have positive effect on economic growth. The growth theory stated that growth occurs from the accumulation of physical capital, likewise labour theory pre-supposes that the growth of the economy is dependent on the quantity and quality of labour force of a country, the higher the quantity and quality, the higher is the expected growth of the economy. As for the Exchange rate, increase in exchange rate of Naira to Dollar is also expected to encourage local production as import becomes more expensive (Shobande, 2018).

However the effect of trade openness can be positive or negative depending on the country's trade policy. If a country operates under export promotion the effect is positive and it is negative the country is under import substitution. Therefore it is expected that $\beta_1, \beta_2, \beta_6 > 0, \beta_3, \beta_4, \beta_5 < 0$.

3.2 Estimation Technique

The estimation technique adopted is the autoregressive distributed lag (ARDL). This technique has been found to be more efficient when the variables of a model exhibit different stationary properties particularly a combination of I(0) and I(1) (Agya, Ojiya and Samuel, 2017; Nagawa, Wasswa and Bbaale, 2020). The empirical analysis involves estimating directly the long-run and the short-run variants of equation 3.2. An ARDL model of the economic growth equation is therefore specified as follows

$$\begin{aligned} \Delta GDP_t = & \alpha_0 + \sum_{i=0}^n \alpha_{1i} \Delta GDP_{t-i} + \sum_{i=0}^n \alpha_{2i} \Delta CAP_{t-i} + \sum_{i=0}^n \alpha_{3i} \Delta LABF_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta FCPI_{t-i} \\ & + \sum_{i=0}^n \alpha_{5i} \Delta TOPEN_{t-i} + \sum_{i=0}^n \alpha_{6i} \Delta FCPI * TOPEN_{t-i} + \sum_{i=0}^n \alpha_{7i} \Delta EXCR_{t-i} + \delta_1 GDP_{t-1} \\ & + \delta_2 CAP_{t-1} + \delta_3 LABF_{t-1} + \delta_4 FCPI_{t-1} + \delta_5 TOPEN_{t-1} \\ & + \delta_6 FCPI * TOPEN_{t-1} + \delta_7 EXCR_{t-1} + u_t \end{aligned} \tag{3.3}$$

where Δ denotes the first difference operator, α_0 is the drift component, u_t is the usual white noise residuals.

The ARDL bounds testing approach to cointegration depends on the tabulated critical values by Pesaran et al. (2001) in order to take decision about cointegration among variables. The null hypothesis of no cointegration is $\delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0$ in the model while the alternative hypothesis of cointegration among variables is $\delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq 0$. Next, is to compare the calculated F-statistics with lower critical bound and upper critical bound by Pesaran et al. (2001). There is cointegration among variables if calculated value of F-statistics is more than upper critical bound. If lower critical bound is more than computed F-statistics then hypothesis of no cointegration may be accepted. Finally, if calculated F-statistics is between lower and upper critical bounds then decision about cointegration is inconclusive.

The error correction version of ARDL model pertaining to the variables in equation 3.3 is specified as follows:

$$\begin{aligned} \Delta GDP_t = & \alpha_0 + \sum_{i=0}^n \alpha_{1i} \Delta GDP_{t-i} + \sum_{i=0}^n \alpha_{2i} \Delta CAP_{t-i} + \sum_{i=0}^n \alpha_{3i} \Delta LABF_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta FCPI_{t-i} \\ & + \sum_{i=0}^n \alpha_{5i} \Delta TOPEN_{t-i} + \sum_{i=0}^n \alpha_{6i} \Delta FCPI * TOPEN_{t-i} + \sum_{i=0}^n \alpha_{7i} \Delta EXCR_{t-i} + \gamma ECM_{t-1} \\ & + u_t \end{aligned} \tag{3.4}$$

where γ is the speed of adjustment parameter and ECM is the residuals that are obtained from the estimated cointegration model of equation (3.4).

3.3 Data Sources and Measurement

The model is estimated using annual data for the period 1970- 2019. Data on all variables including gross domestic product (GDP), gross domestic capital formation (GDI), trade openness TOPEN, labour force (LAF), foreign capital inflows both FDI and ODA and exchange rate are obtained from the world bank’s World Development Indicators (WDI). All variables are expressed as percentage of GDP except exchange rate and the GDP itself.

4. RESULTS AND DISCUSSION

The study starts the analytical procedure with preliminary examination of the statistical properties of the variables used for the analysis sine the data are time series data. Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests are used to test for unit-root. The table below presents the results of both the Augmented Dickey Fuller and Phillip Peron tests. The results of both tests are consistent and confirmed that all variables had unit-root except official development assistance and foreign direct investment

Table 1a: ADF Unit root/stationarity test (with intercept)

Variables	t-Statistic		Prob	Remark
	Level	1 st Difference		
CAP	-2.2228	-6.5214*	0.0000	I(1)
LABF	-1.3324	-6.2811*	0.0000	I(1)
ODA	-4.6090*	-7.8152*	0.0005	I(0)
FDI	-4.1925*	-9.6508*	0.0017	I(0)
TOPEN	-2.0586	-7.2790*	0.0000	I(1)
EXCR	2.1013	-4.7038*	0.0004	A(1)
GDP	1.3511	-3.5481*	0.0107	A(1)

Note: The MacKinnon (1996) 5% critical value = -2.9224 for level stationary and -2.9238 for first difference stationary, * denotes the rejection of the hypothesis of a unit root

Table 1b: Phillips-Perron unit root/stationarity test

Variables	t-Statistic		Prob	Remark
	Level	1 st Difference		
CAP	-2.1303	-6.8815*	0.0000	I(1)
LABF	-1.3433	-6.2937*	0.0000	I(1)
ODA	-4.6090*	-7.8152*	0.0005	I(0)
FDI	-4.1942*	-22.6463*	0.0017	I(0)
TOPEN	-2.0586	-7.3838*	0.0000	I(1)
EXCR	2.2050	-4.6641*	0.0004	A(1)
GDP	1.7341	-3.5974*	0.0094	A(1)

Note: The MacKinnon (1996) 5% critical value = -2.9224 for level stationary and -2.9238 for first difference stationary, * denotes the rejection of the hypothesis of a unit root

Augmented Dickey Fuller results show that the t-statistics for gross capital formation, labour force, trade openness, exchange rate, and gross domestic product are -6.5214, -6.2811, -7.2790 -4.7038 and -3.5481 at first difference, all of which are negative greater than the MacKinnon(1996) 5% critical value of -2.9238. This means that they are just stationary at first difference at 5%. It can be seen from the table that all their probability values are also less than 0.0500, to reject the null hypothesis of non-stationary. Official development assistance and foreign direct investment on the other hand, has a level t-statistic of -7.8152 and -9.6508 which is negative greater than the 5% critical value of -2.9224 hence they are stationary at level at the same 5% significant level. The result from the Phillips Perron test is exactly in line with ADF. In all gross capital formation, labour force, trade openness, exchange rate, and gross domestic product are I(1) while official development assistance and foreign direct investment are I(0).

. The optimal lag length for the model was determined before proceeding to other tests of the statistical properties of the variables. The result of the selection criteria are presented in table 2. The result produces a unanimous decision with sequential modified LR test, Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC) and Hannan-Quinn Information Criterion (HQ) suggesting that lag 3 is optimal. The study therefore adopted lag 3 mainly to improve the degree of freedom.

Table 2: Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1470.618	NA	3.59e+26	63.98339	64.02314	63.99828
1	-1354.748	221.6643	2.43e+24	58.98904	59.06855	59.01882
2	-1348.992	0.876622	2.02e+24	58.80489	58.96390	58.86445
3	-1348.512	10.76016*	1.98e+24*	58.78228*	58.90154*	58.82696*
4	-1347.921	1.053837	2.06e+24	58.82266	59.02143	58.89712

Source: Authors' Computation, 2021 * indicates lag order selected by the criterion.
 LR: sequential modified LR test statistic (each test at 5% level)
 FPE: Final prediction error AIC: Akaike information criterion
 SC: Schwarz information criterion HQ: Hannan-Quinn information criterion

4.1 Results of Cointegration Test

After the issues of stationarity and optimal lag length have been settled the study proceeds to conduct cointegration test to ascertain if there is a long run relationship between the study variables. The tables below present the results of ARDL bound approach to co-integration. Two components of foreign capital inflows are used, official development assistance and foreign direct investment. Table 3a combines official development assistance with other variables while table 3b combines foreign direct investment with other variables.

Table 3a: Result of Cointegration Test (FCPI = ODA)

Test Statistic	Value	Df	Prob
F-statistic	4.405316	(7, 28)	0.0021
Chi-square	30.83721	7	0.0001

Table 3b: Result of Cointegration Test (FCPI = FDI)

Test Statistic	Value	Df	Prob
F-statistic	3.250819	(7, 30)	0.0447
Chi-square	12.85074	7	0.0758

The results of the bound test revealed that the F- statistic tabulated value is 4.41 for official development assistance and other variables, which is greater than Perasan (intercept and no trend) critical Upper Bound value of 3.61 and lower bound value of 2.45 at 95% respectively. Likewise for foreign direct investment and other variables, the F- statistic tabulated value is 3.25 which is just greater than Perasan (no intercept and no trend) critical Upper Bound value of 3.24 and lower bound value of 2.04 also at 95% respectively. These establish long run relationship among variables in the two models.

4.2 Long Run ARDL Regression Results

After the existence of long run relationship among variables has been established, the study proceeds to estimate the long and short run parameters of the variables. Table 4a and 4b present the results of the estimated long-run growth equation with official development assistance and foreign direct investment as components of foreign capital inflows in tables a and b respectively.

As shown in table 4a, official development assistance’s coefficient is positively signed and significant at 5% critical level, showing that it stimulates growth in the long run. Also the official development assistance-trade openness interaction’s coefficient is positive and significant. This signifies that even though official development assistance has a positive effect on economic growth in Nigeria, export promotion policy regime favourably affect the positive effect, thus complementing the effect of official development assistance in promoting economic growth in the

Table 4a: Long-run Regression Results: FCPI = ODA

Variables	Dependent Variable: GDP			
	Coefficient	Std. Error	t-statistics	Prob.
C	3.12E+12	1.71E+12	1.823457	0.0789
CAP(-1)	-3.99E+10**	1.59E+10	-2.512049	0.0180
LABF(-1)	4.41E+09	1.15E+10	0.382184	0.7052
ODA(-1)	0.646506**	0.183760	3.518202	0.0015
TOPEN(-1)	-7.20E+10	6.71E+10	-1.073816	0.2921
EXCR(-1)	3.90E+10**	8.91E+09	4.378693	0.0002
ODA*TOPEN(-1)	2.10E+11**	6.37E+10	3.302029	0.0026
R-squared	0.733311	D-W	2.183318	
F. Stat.	4.811953	F.Prob	0.000146	

Source : Authors’ computation, 2021: ** denotes that the variable is significant at 5% level.

Table 4b: Long-run Regression Results : FCPI = FDI

Variables	Dependent Variable: GDP			
	Coefficient	Std. Error	t-statistics	Prob.
CAP(-1)	3.13E+10**	1.21E+10	2.592393	0.0146
LABF(-1)	1.40E+09	1.20E+10	0.116837	0.9078
FDI(-1)	1.54E+11**	6.40E+10	2.411131	0.0222
TOPEN(-1)	-3.47E+10	4.59E+10	-0.755356	0.4559
EXCR(-1)	9.42E+09	7.10E+09	1.326464	0.1947
FDI*TOPEN(-1)	0.397046**	0.181530	2.187223	0.0367
R-squared	0.704888	D-W	2.419163	

Source: Authors’ computation, 2021: ** denotes that the variable is significant at 5% level.

long run in Nigeria. Same can also be said of foreign direct investment. Both its coefficient and that of its interaction with trade openness are positive and significant. It can therefore be concluded that in the long run, the effect of foreign capital inflows in Nigeria is in line with Bhagwati hypothesis, hence foreign capital inflows leads to economic growth in Nigeria during export promotion policy regime as against during import substitution policy regime.

4.3 Short Run Relationship

The study proceeds to find the dynamic equilibrium between the short run and the long run relationship, the error correction model (ECM) is estimated and the result is presented in the following tables 5a and 5b below. The Error Correction Term (ECT) indicates the speed of adjustment from disequilibrium to equilibrium in the following year. The sign of ECT is negative and statistically significant in both growth models with official development assistance and foreign direct investment respectively as expected. The economic implication of this result is that about 12.4% of the discrepancy between the long run and short run dynamics is corrected within the following year in the case of the model with official development

assistance and very large percentage of the discrepancy is corrected within one year in the case of the model with foreign direct investment, revealing a high speed of adjustment between the economic growth and the independent variables. In the growth model with official development assistance only exchange rate is found significant while Wald coefficient test indicates official development assistance

Table 5a: Short-run Regression Results : FCPI = ODA

<i>Variables</i>	<i>Dependent Variable: DGDP</i>			
	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-statistics</i>	<i>Prob.</i>
D(GDP(-3))	-1.41E+12	1.59E+10	-0.863875	0.3950
DCAP(-1)	-5.70E+10**	1.63E+12	-2.813180	0.0089
DLABF(-3)	-5.49E+10	2.03E+10	-1.498418	0.1452
DODA(-2)	-1.71E+11	3.66E+10	-0.644346	0.5246
DODA(-3)	-3.40E+11	2.66E+11	-1.675008	0.1051
DTOPEN(-2)	6.40E+10	2.03E+11	0.473808	0.6393
DEXCR(-1)	-5.72E+10*	1.35E+11	-4.137451	0.0003
DEXCR(-2)	1.13E+10	1.38E+10	0.638274	0.5285
DODA*TOPEN(-2)	-1.12E+11	1.78E+10	-0.853216	0.4008
ECM (-1)	-0.123898*	1.32E+11	-2.767719	0.0099
R-squared	0.733311	D-W	2.183318	
F. Stat.	4.811953	F.Prob	0.000146	

Source: Authors' computation, 2021: * denotes that the variable is significant at 5% level.

Table 5b: Short-run Regression Results: FCPI = FDI

<i>Variables</i>	<i>Dependent Variable: LGDP</i>			
	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-statistics</i>	<i>Prob.</i>
D(GDP(-1))	0.520586*	0.156722	3.321713	0.0024
D(GDP(-3))	5.00E+10	3.07E+10	1.629645	0.1136
D(CAP(-1))	-3.48E+10	2.18E+10	-1.597756	0.1206
D(LABF(-3))	-5.78E+10	3.71E+10	-1.556542	0.1301
D(FDI(-2))	-2.31E+11	1.38E+11	-1.669631	0.1054
D(TOPEN(-2))	-6.22E+11	4.56E+11	-1.363523	0.1829
D(EXCR(-3))	2.75E+10	1.57E+10	1.752572	0.0899
D(FDI*TOPEN(-3))	-0.047300*	0.019531	-2.421791	0.0201
ECM (-1)	-6.68E+10*	3.26E+10	-2.052624	0.0489
R-squared	0.704888	D-W	2.419163	

Source: Authors' computation, 2021: * denotes that the variable is significant at 5% level.

with a coefficient of 1.5878 and probability value of 0.2222 is insignificant in the short run. In fact the interaction of official development assistance with trade openness is also insignificant in the short run. In the case of the model with foreign direct investment, lag of gross domestic product is confirmed to affect economic growth in the short run as Wald test indicates that it is significant with a coefficient of 10.2985 and a probability value of 0.0004. Again foreign direct investment is also insignificant but the interaction of foreign direct investment with trade openness is significant, even though it is negative, revealing that Bhagwati hypothesis is not supported in the short run.

4.4 Diagnostic Tests

Various diagnostic tests are conducted to ensure goodness of fit of the model. These tests include serial correlation test, normality test, heteroscedastic test and stability test. The results are presented in table 6 below. As it can be seen from the table, diagnostic tests suggest that the analysis results from the two models are free from serial correlation with F stat of 1.305987, a

Table 6: Diagnostic Tests

Variable	FCPI = ODA		FCPI = FDI	
	F - value	Prob.	F - value	Prob.
Serial Correlation LM Test	1.305987	0.2945	2.342391	0.1128
Normality (Jarque-Bera Stat)	0.324116	0.8504	0.729411	0.6944
Heteroscedasticity	0.475897	0.9390	1.789347	0.0872

Source: Authors' Computation, 2021.

probability value of 0.2945 in the growth model with official development assistance and F stat of 2.342391, a probability value of 0.1128 in the case of the model with foreign direct investment. The residuals are normally distributed with Jacque-Bera statistic of 0.324116 (probability value of 0.8504) and 0.729411 (probability value of 0.6944) respectively for the models with official development assistance and foreign direct investment. The results are also found to be heteroscedastic free with Breusch-Pagan-Godfrey F-statistic of 0.475897 (a probability value of 0.9390) and 1.789347 (a probability value of 0.0872) for the respective models with official development assistance and foreign direct investment. For the stability of the models CUSUM and square of CUSUM tests are examined, it can be observed from their diagrams below, that the plot of CUSUM and square of CUSUM fall within critical bound of 5% in each case confirming the long run association among the variables as well as stability of the coefficients in the models.

Figure 1a: Cusum and Square of Cusum for Growth Model with Official Development Assistance

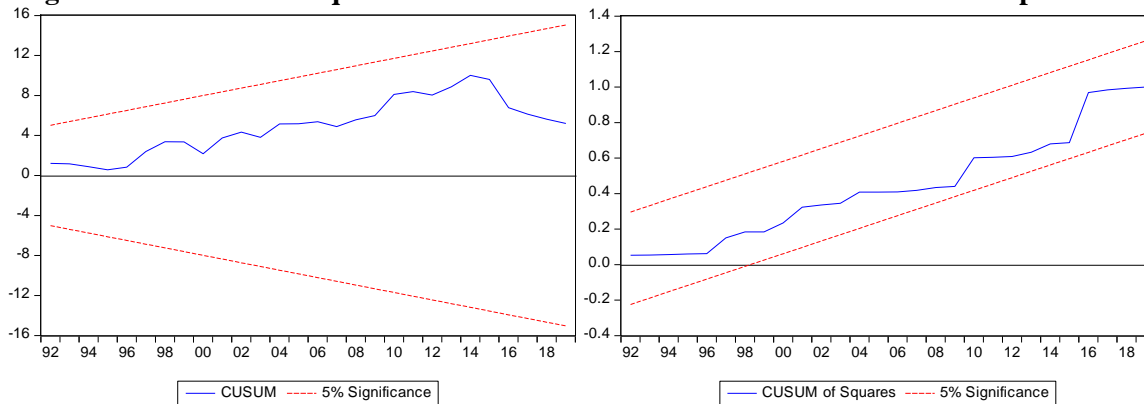
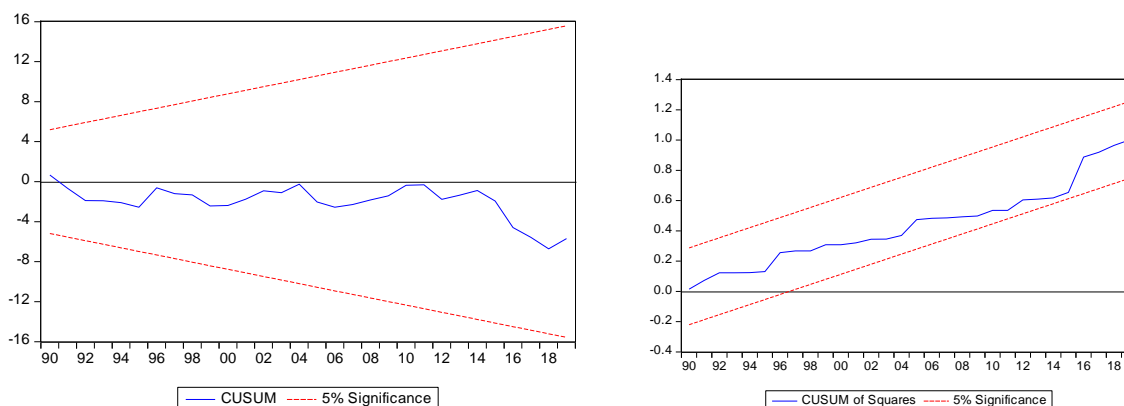


Figure 1b: Cusum and Square of Cusum for Growth Model with Foreign Direct Investment



5. CONCLUSION AND RECOMMENDATION

In this study, an examination of the effect of trade policy regime on the relationship between foreign capital inflows and economic growth in Nigeria was carried out. An autoregressive distributed lag model was developed and estimated with two components of foreign capital inflows - official development assistance and foreign direct investment. The long run results revealed that trade policy regime plays complementary roles with both official development assistance and foreign direct investment to have positive effects on economic growth in Nigeria. This in line with Bhagwati's hypothesis indicating that export promotion trade policy regime is the pathway to economic growth in the presence of any of the foreign capital inflows into the country. In the short run however both official development assistance and its interaction with trade policy regime coefficient are insignificant. The same is the situation with foreign direct investment, except for the interaction of foreign direct investment and trade policy regime coefficient that is though significant, but negative.

The result of the study suggests that export promotion policy is a good policy regime for the country when combined with foreign capital inflows and that with the combination, the country can attain a higher level of growth of the economy. In the 1960s till mid 1980s trade policy regime in Nigeria was in favour of import substitution, but there was a policy regime change in favour of export promotion thereafter. This study recommends that export promotion should continue to be the nation's trade policy regime and government should continue to attract more foreign capital inflows into the country. This can be done by making monetary policy implementation more friendly, with low interest rate and moderately encouraging exchange rate to attract foreign direct investment. More inflows of foreign capital in the pursuit of export promotion trade policy will lead to improved economic growth in Nigeria.

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