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Economic openness, institutional quality and *per capita* income: Evidence from the Economic Community of West African States (ECOWAS)

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Abstract

The controversy surrounding the actual impact of institutional quality and economic openness on economic growth is among the motivating factors for this study. The study seeks to investigate this relationship in the Economic Community of West African States (ECOWAS) by using the panel autoregressive distributed lag (ARDL) test with annual series covering the period from 2000 to 2020. Findings indicate that in the short-run, regulatory quality and FDI outflows had an adverse impact on the economic performance of the ECOWAS bloc. Furthermore, the long-run results show that trade openness, political stability and FDI outflows had an adverse impact on the economy of the bloc, while regulatory quality positively affected the economy. Consequently, the paper recommends that member countries in the ECOWAS bloc should put in place effective regulatory framework in the short and medium term to attract FDI inflows, while building a strong and stable political environment in the long term.

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Introduction

The contribution of economic liberalisation to the growth of an economy has been a subject of debate over the years. While some scholars are of the view that through economic liberalisation, a country's economy can be improved (Wei, 2015), others are sceptical about the growth-led hypothesis of openness of the economy. Concerns have been raised about the impact of openness of the economy on developing countries that depend mostly on the export of primary products in relation to developed countries, whose export products comprise mostly manufactured goods. This concern was earlier raised by Prebisch (1950) and Singer (1950) in their separate studies. These scholars noted that trade between developing and developed countries usually does not favour the former because of their specialisation in the export of primary products which suffer deteriorating terms of trade. Additionally, the role of institutions in influencing the economy has been identified. Equally, there is yet a consensus on the actual impact of institutions on the performance of the economy. While some scholars such as (Ha, 2016; Ngo & Nguyen, 2020; North, 1990) contended that institutional quality supports growth, others—such as Acemoglu et al. (2015)—found no significant link between institutional variables and the growth of the economy.

In the face of these controversies, the focus of this study is to contribute to the on-going debate by concentrating on some selected countries within the Economic Community of West African States (ECOWAS). In 1975, the ECOWAS was established as a regional and economic bloc with the objectives, which include the promotion of economic integration and the creation of a single large trading bloc. ECOWAS is composed of 15 member countries, including among others Nigeria, Togo, Ghana, Sierra Leone, Liberia, Gambia, Benin, Senegal and Ivory Coast. This study focuses on five ECOWAS countries, namely: Nigeria, Ivory Coast, Togo, Benin and Senegal. Endowed with an abundance of natural resources such as: crude oil, gas, zinc, lead, coal, limestone and so on, Nigeria is among the biggest economies in ECOWAS. Even with the abundance of these resources, its mainstay is revenue from crude oil, which contributes largely to its gross domestic product (GDP). Senegal is endowed with natural resources such as: phosphates, gas, gold, iron and recent oil discoveries. In Senegal, rural employment comprises activities in mining, fishing and agriculture. The bulk of foreign exchange earnings in Togo come mainly from the export of cotton, coffee and cocoa. In addition to these, the country is also endowed with limestone, marble and phosphates. For Benin, its major source of foreign exchange is cotton, while subsistence farming remains its economic mainstay. More so, it engages in the production of palm products, beans, rice, yams, peanuts, etc. Ivory Coast major export goods are: palm oil, coffee, rubber, pineapples and cocoa. It also has offshore oil and gas. Ivory Coast has a relatively high standard of living in West Africa with the growing middle class.

The interest in ECOWAS stems from to the fact that the countries comprising the bloc fall under developing countries that specialise mostly in the export of primary products amid poor institutional arrangements. As a result, the economy of these countries usually suffers from deteriorating terms of trade, which amounts to revenue shocks. More worrisome is the fact that these countries are beset by weak and ineffective institutions that inhibit their growth process. It is our conviction that the outcome of the findings will be of interest to policy makers in these and other developing countries since, according to our best knowledge, no such study has been conducted in the economic bloc. Our study is thus guided by the null hypothesis that economic openness and institutional quality do not have any significant impact on the GDP *per capita* both in the long run and in the short run.

Section 1 of the study deals with introduction and annual changes in some variables used in the study and Section 2 treats the theoretical issues linking both openness of the economy and institutional quality to GDP *per capita*. Sub-sections 2.1 and 2.2 deal with empirical literature, while Section 3 deals with the methodology. The focus of Sub-sections 3.1 and 3.2 is on model specification as well as data and variables respectively. In Section 4, the study analyses the results and interpretations, while the last section provides the conclusion of the study.

1. Annual changes in FDII, FDIO, regulatory quality and political stability

We provide the annual changes in some of the variables used in the study, such as foreign direct investment inflows (FDII), foreign direct investment outflows (FDIO), regulatory requirement and political stability. In terms of FDI inflows, Figure 1 indicates that Ivory Coast was a major destination of FDI inflows from 2000 through 2010. However, in 2011 FDI inflows for Togo were the highest even though this did not last as the value descended abruptly the same year. Beginning from 2012, Ivory Coast's FDI inflows were higher than those of other countries all through the sample period. Senegal was another country that had a mild rise in its FDI inflows, followed by Benin. The changes for Nigeria were not noticeable throughout the sample period. It is our view that the conducive and friendly macroeconomic environment coupled with the absence of bottlenecks on capital movement could be responsible for the rise in the FDI inflows. For instance, the economy of Ivory Coast has been stable over the years as the country has a relatively high standard of living.

With respect to FDI outflows, evidence in Figure 2 indicates that FDI outflows were highest for Senegal from 2000 to 2009. FDI outflows for Togo were the highest only in 2011 and in 2016, while the value for Senegal was highest in 2016. The

Variables measured as % of GDP
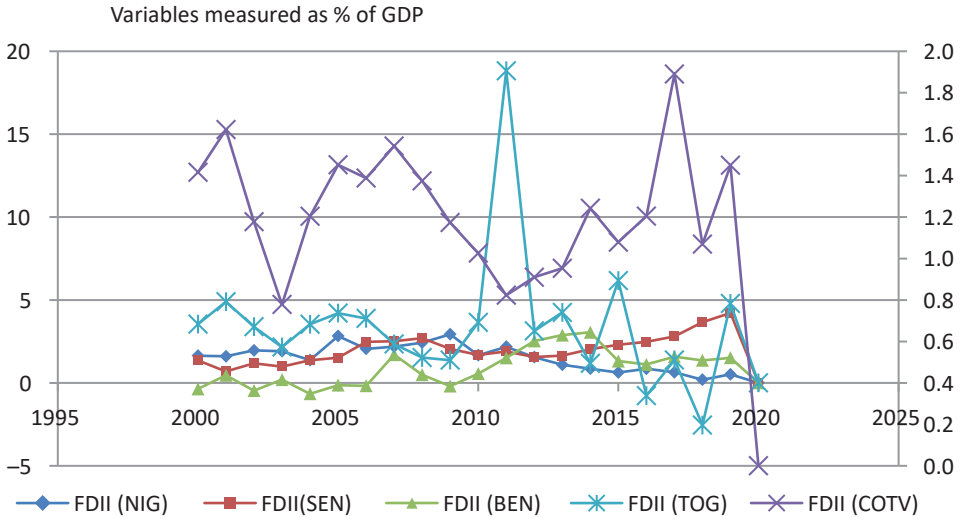
Note: FDII – foreign direct investment inflows, NIG – Nigeria, SEN – Senegal. BEN – Benin, COTV – Ivory Coast, TOG – Togo.

Figure 1. Annual changes in FDI inflows in selected ECOWAS countries

Source: own compilation.

value for Ivory Coast was highest in 2017. Between 2000 and 2009 also Nigeria's FDI outflows trailed behind Senegal but became almost flat after 2009. The value for Benin was negative from 2000 to 2011 but was flat from 2012. Additionally, with the exception of 2012 when the value for Togo was the highest, the value for other years was negative. One noticeable factor is that the countries that had high FDI inflows also had low FDI outflows. For instance, Ivory Coast whose value of FDI inflows was very high during the study period had a very low FDI outflows. The same goes for Togo whose FDI outflows were negative in almost the entire sample period. It is equally noticed that Senegal, whose value of FDI inflows was flat all throughout the sample period, had the highest value of FDI outflows.

Annual changes in the regulatory quality in Figure 3 show that in 2001 all the countries in the sample attained a slight improvement in their regulatory quality, but it quickly descended to negative, except for Senegal whose regulatory quality was negative from 2003. From 2011, regulatory quality for Senegal turned positive and it remained so all throughout the sample period. Apart from Senegal, the value for other countries was negative in the entire study period, except in 2001. The implication of this finding is that the countries sampled in this study had weak regulatory quality, and this is inimical to growth. Weak regulatory quality hampers the growth of the economy as it introduces rigidities in the macroeconomic environment.

Variables measured in % of GDP
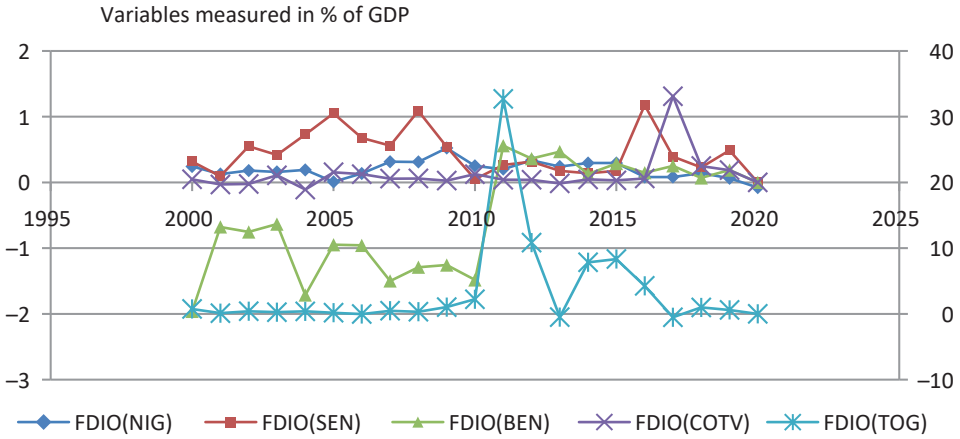
Note: FDIO – foreign direct investment outflow, NIG – Nigeria, SEN – Senegal, BEN – Benin, COTV – Ivory Coast, TOG – Togo.

Figure 2. Annual changes in FDI outflows in selected ECOWAS countries

Source: own compilation.
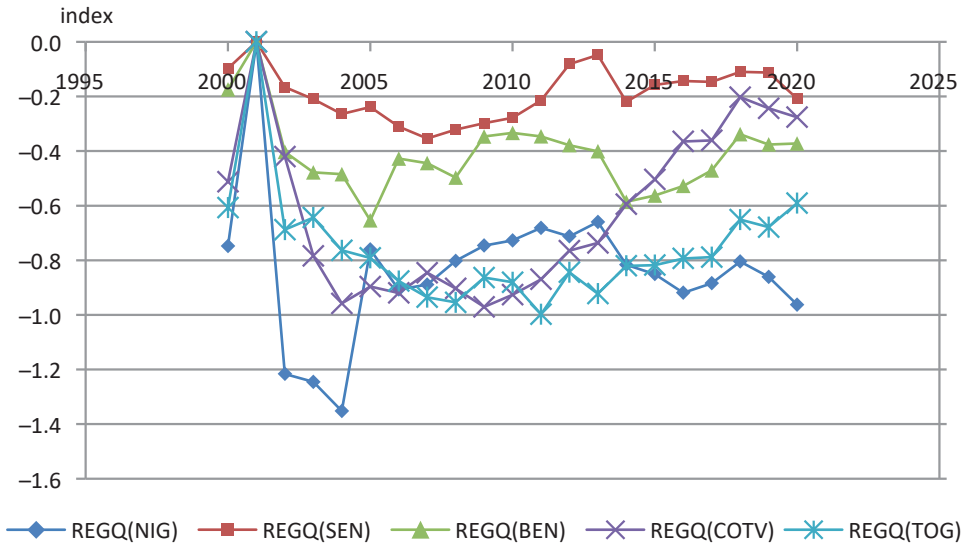
Note: REGQ – regulatory quality, NIG – Nigeria, SEN – Senegal, BEN – Benin, COTV – Ivory Coast, TOG – Togo.

Figure 3. Annual changes in regulatory quality in selected ECOWAS countries

Source: own compilation.
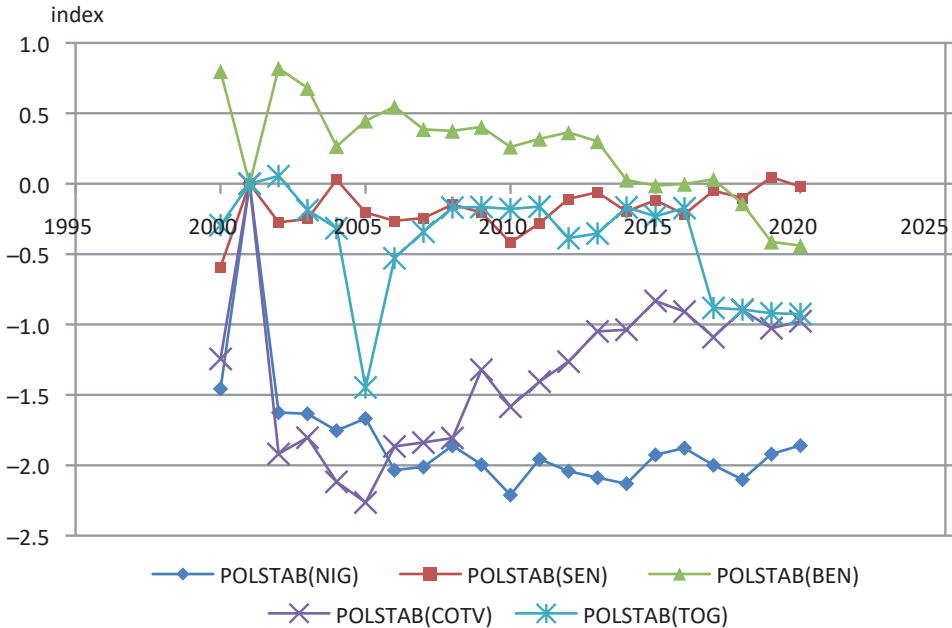
Note: POLSTAB – political stability, NIG – Nigeria, SEN – Senegal, BEN – Benin, COTV – Ivory Coast, TOG – Togo.

Figure 4. Annual changes in political stability in selected ECOWAS countries

Source: own compilation.

In Figure 4, it can be seen that political stability in all the countries was positive in 2001. The value for Benin was positive until 2017 when it descended to negative. On the other hand, Senegal had a positive value in 2004, 2012 and 2019 respectively, while the value for other years was negative. Togo had a positive value only in 2002, but the value for other years was negative. Apart from 2001, the values for Ivory Coast, Nigeria and Togo were never positive throughout the sample period. Again, this shows that the economic growth prospect of the countries in our sample could be affected by political instability that beset them.

2. Theoretical issues

Diverse theoretical views have been raised regarding the connection between economic openness and the performance of the economy. Lucas (1988) observed that as a country liberalises its trade through opening up its borders, there are

chances that the country will benefit from technological diffusion from developed countries. Furthermore, Grossman and Helpman (1991) were of the view that the spillover arising from foreign direct investment (FDI) by means of the transfer of technology and diffusion of knowledge could translate into improved productivity, and hence economic growth. Trade openness encourages specialisation, enhances domestic productivity and economies of scale and all these lead to the growth of the economy. In addition to these, by encouraging competition, domestic producers are conscious of their production processes and have the tendency to improve efficiency, thus reducing the cost of doing business. However, despite the growth-led hypothesis of economic openness, some scholars are of the view that opening up the economy could result into reduced growth. Diakosavvas and Scandizzo (1991) argued that terms of trade of a country are bound to decline if the country's export demand is elastic. This view finds support in Krugman (1994) who observed that the impact of economic openness on economic growth is not clear. Krugman (1994) argued that terms of trade of a country are bound to deteriorate if domestic consumption of imported goods is higher than domestic production of these goods.

The growth-led hypothesis of institutional quality has also been buttressed by some scholars. North (1990) contended that institutions play an essential role in enhancing the growth of the economy. Institutional quality variables such as governance effectiveness, regulatory quality, voice and accountability, etc. are germane to the growth of a country's economy. Supporting this, Rodrik (1999) observed that institutional quality enhances the long-term economic growth of a country. Institutional quality transmits to the economy through its effects on the variables that improve economic growth. Effective institutions lead to reduction in transaction costs, which subsequently impacts investment positively. As noted by Aron (2000), quality investments can be achieved in countries that have effective and functional institutions. For instance, if property rights are weakly defined and lack enforcement in a country, huge and profitable investments in fixed assets may not penetrate the country as the state could seize the profits arising from the investment.

2.1. Empirical literature on the link between economic openness and GDP

Several empirical studies have been carried out to investigate the nexus between openness of the economy and economic growth across different countries. In a study for Nigeria, Saifullahi and Nuruddeen (2015), using the vector error correction model (VECM) and Granger causality test over a period of 1980–2012, revealed that the link between real GDP and trade openness is positive, while a negative relationship exists between real GDP and financial openness. Wei (2015)

employed both *de jure* and *de facto* indicators of financial openness in seventeen Asian countries to prove that *de facto* indicators facilitated growth but de jure indicators did not. In China, Quazi et al. (2016) used the framework of ARDL to show that trade openness is positively related to economic growth both in the long run and in the short run. In a cross-country study involving sub-Saharan African (SSA) countries, Mputu (2016) employed the frameworks of fixed and random effects over a period of 1980–2011 to reveal that the link between terms of trade and GDP is positive. In a study comprising 125 countries, of which 37 are least developed countries (LDCs), Brun and Gnangnon (2017) used three stage least squares (3SLS) to show that trade openness drives financial flows for development in addition to improving government public revenue**.**

Huchet et al. (2018) used the generalised method of moments (GMM) estimator in a panel of 169 countries over a period of 1988–2014 to prove that openness to trade may impact growth negatively for countries which specialise in low quality products. In a study involving Ghana, Nigeria and South Africa, Ehigiamusoe and Hooi Hooi (2018) employed the ARDL framework to show that interdependence exists among financial development, trade openness and economic growth. Goh et al. (2019) employed an unbalanced panel data of 115 countries spanning between 1970 and 2014 to show that a two-way causality exists between *de facto* financial openness and trade openness. In a study involving developed and developing countries, Fatima et al. (2020) used the GMM to reveal that an indirect link exists between trade openness and GDP growth. In a cross-country study involving West African countries, Wiredu et al. (2020) used static panel regression techniques to show that trade openness, investment and inflation had a positive and significant impact on economic growth. In another study for Nigeria, Obiakor et al. (2021) applied the ARDL to prove that trade openness did not have a significant effect on government spending in the short run. The result of the nexus between trade openness and GDP contradicts the findings by Saifullahi and Nuruddeen (2015). By focusing on the link between trade openness and foreign direct investment, Rathnayaka Mudiyanselage et al. (2021) employed the ARDL over a period of 1997–2019 to show that trade openness had negative and significant long-run and short-run relationships with FDI inflows in Romania.

2.2. Empirical literature on the link between institutional quality and GDP

Some studies have revealed that institutional qualities are important indicators of economic performance. Le et al. (2015) applied the GMM over a period of 1995–2011 to show that better governance and institutional quality encouraged

financial development in developing countries, while economic growth and trade openness were the major determinants of financial depth in developed economies. For 29 emerging economies, Nguyen et al. (2018) used the system generalised method of moments (SGMM) estimators over a period of 2002–2015 to indicate that institutional quality exerted a significant and positive impact on economic growth. In a cross-country study involving middle-income countries, Recuero and González (2019) used the framework of a panel vector autoregressive (PVAR) model to reveal that institutional quality and economic growth are positively related. In a study for Nigeria, Olanrewaju et al. (2019) used Toda-Yamamoto (TY) Granger non-causality test within the framework of augmented VAR to examine the causal link among institutional, financial and economic growth over 1998–2017. The results show that all the variables, except for the financial inclusion index caused growth but without any evidence of feedback. For Asian countries, Ngo and Nguyen (2020) used the GMM over a period of 2000–2018 to show that institutional factors did not have a positive impact on economic growth in middle income countries in Asia. In another study for Nigeria, Abubakar (2020) employed the ordinary least squares (OLS) method over a period of 1979–2018 to show that economic growth responded positively to institutional quality. Abere and Akinbobola **(**2020) employed the structural vector autoregressive (SVAR) approach to show that the role of institutional quality is important in the performance of the macroeconomic environment in Nigeria. Oanh et al. (2021) used quintile regression methods in a study involving 48 countries in Asia for a period of 2005–2018 to prove that an institutional threshold exists for economic growth to reach its highest level. The authors of the study observed that if an indicator for the institution exceeds the threshold, economic growth declines. Wang et al. (2021) employed the fully modified ordinary least squares (FMOLS) method and VECM for a period of 1999–2017 to show that institutional quality significantly promoted economic growth in non-oil producing countries, but showed no significant impact in oil-producing countries.

3. Methodology

In this study, the authors have employed the framework of the panel autoregressive distributed lag (ARDL) to investigate the impact of economic openness and institutional quality on the economic performance in the ECOWAS. The strength of the ARDL over other methods is that it can be applied notwithstanding the presence of endogeneity of the variables of the model. Additionally, it can be employed irrespective of whether the series are integrated of order one

I(1) or zero *I*(0) or an admixture of *I*(1) and *I*(0)*.* In order to check the order of integration, we employed panel unit root tests such as: Levin, Lin & Chu (LLC), which tests for the existence of a unit root for all the countries pooled together, Augmented Dickey Fuller-Fisher (ADF-Fisher), Im, Pesaran and Shin (IPS), as well as Phillp-Perron-Fisher (PP-Fisher) tests which test the null hypothesis of the existence of a unit root for individual countries. Having ascertained the order of integration, the study investigated the presence of long-run relationship using both the Kao residual cointegration and the Johansen Fisher panel cointegration test. The study combined both institutional qualities and openness of the economy following Rajan and Zingales (2003), who noted that a simultaneous combination of the two determinants could guarantee economic growth. After ascertaining the cointegrating relationship, the study went further to investigate both the long-run and the short-run impact.

3.1. Model specification

With respect to the theoretical views that link institutional quality and economic openness to economic growth, the functional relationship among these variables is stated in Equation (1) as follows:

$$LGDPPC_t = f(FDII_t, FDIO_t, POLSTAB_t, REGQ_r, TOPEN_t, LBNT_r) \qquad (1)$$

The panel ARDL representation of Equation (1) can be expressed as follows:

$$\Delta LGDPPC_{it} = \lambda_0 + \sum_{i-1}^{p} \lambda_1 \Delta LGDPPC_{it-i} + \sum_{t=0}^{p} \lambda_2 \Delta FDII_{it-1} +$$
$$+ \sum_{t=0}^{p} \lambda_3 \Delta FDIO_{it-i} + \sum_{t=0}^{p} \lambda_4 \Delta POLSTAB_{it-i} + \sum_{t=0}^{p} \lambda_5 \Delta REGQ_{it-i} +$$
$$+ \sum_{t=0}^{p} \lambda_6 \Delta TOPEN_{it-i} + \sum_{t=0}^{p} \lambda_7 \Delta LNBT_{it-i} + \lambda_8 LGDP_{it-1} + \lambda_9 FDII_{it-1} +$$
$$+ \lambda_{10} FDIO_{it-1} + \lambda_{11} POLSTAB_{it-1} + \lambda_{12} REGQ_{it-1} + \lambda_{13} TOPEN_{it-1} +$$
$$+ \lambda_{14} LNBT_{it-1+} \varepsilon_{it} \qquad (2)$$

where: *LGDPPC* is log of Gross Domestic *per capita* (a proxy for economic growth); *FDII* is foreign direct investment inflows; *FDIO* is foreign direct investment outflows; *POLSTAB* is political stability; *REGQ* is regulatory quality; *TOPEN* is trade openness; *LNBT* is log of net barter terms of trade; ε is the error term.

The country and time are represented by the subscripts i and t respectively in Equation (2), $\lambda_1, \lambda_2, \lambda_3, \lambda_4, \lambda_5, \lambda_6$ and λ_7 are the coefficients of the short-run parameters, while $\lambda_8, \lambda_9, \lambda_{10}, \lambda_{11}, \lambda_{12}, \lambda_{13}$ and λ_{14} are the coefficients of the long-run parameters.

The hypotheses are stated as follows:

$\lambda_8 = \lambda_9 = \lambda_{10} = \lambda_{11} = \lambda_{12} = \lambda_{13} = \lambda_{14} = 0$ (existence of cointegration)
$\lambda_8 \neq \lambda_9 \neq \lambda_{10} \neq \lambda_{11} \neq \lambda_{12} \neq \lambda_{13} \neq \lambda_{14} \neq 0$ (absence of cointegration)

3.2. Data and variables

In this study, the interest is to investigate the impact of openness of the economy and institutional quality on the economic performance of the ECOWAS over a period of 2000–2020. The countries comprising the ECOWAS that are featured in the study include: Nigeria, Senegal, Benin, Ivory Coast and Togo and they have been selected based on data availability. The data for the variables were obtained from the World Development Indicators (WDI) data bank, except data on institutional quality variables that were obtained from the Worldwide Governance Indicators (WGI). GDP *per capita* (GDPPC) is used to measure economic performance and it is measured in constant 2015 US dollars for all the countries, except for Nigeria whose GDP *per capita* is measured in constant 2010 US dollars. GDP *per capita* is calculated by dividing real GDP by the population of a given country. Net barter terms of trade (NEBT) are used as a proxy for terms of trade and they are measured using 2000 as the base year for all the countries in the sample. The institutional quality variables used in the study are political stability and regulatory quality. The authors divide openness of the economy into trade openness and financial openness. Trade openness is calculated as the ratio of the sum of export and import to GDP (Das & Rishi, 2010; Nzeh et al., 2021; Obiakor et al., 2021). The GDP used in calculating trade openness is measured in constant 2015 US dollars for all the countries, except for Nigeria whose GDP is measured in constant 2010 US dollars. Additionally, apart from Nigeria whose export and import are measured in 2010 constant US dollars, other countries' export and import is measured in 2015 constant US dollars. We used *de facto* indicators to capture financial openness, namely: foreign direct investment inflows (FDII) and foreign direct investment outflows (FDIO) and they are all measured as a percentage of GDP. The main reason for the study's adoption of FDI flows as a proxy for financial openness is that they are considered the main source of foreign investors' external capital for domestic companies. The choice of FDI inflows and outflows find support in Wei (2015) and Goh et al. (2019).

4. Results and interpretations

In every time series study, carrying out a preliminary test to determine the stationarity of the series is paramount to avoid generating results that are not relevant. In this study, we conducted various panel unit root tests to determine the order of integration of the series. Such tests in retrospect include the Levin, Lin and Chu (LLC), Im, Pesaran and Shin (IPS), Augmented Dickey-Fuller-Fisher (ADF-Fisher) and Phillip Perron-Fisher (PP-Fisher) unit root tests. The decision rule is to reject the null hypothesis of no stationarity if the *p*-value of each test is less than the chosen critical values. If that is the case, we conclude that the series are stationary or that there is no presence of a unit root. The results of the LLC test presented in Table 1 show that FDII, FDIO, POLSTAB and REGQ achieved stationarity at level, that is they were *I*(0). However, after the first difference, as indicated in Table 2, all the series became stationary; that is, they became *I*(1) with the exception of REGQ which remained *I*(0). Under the IPS test presented in Table 1, FDIO, POLSTAB and REGQ were *I*(0); however, as shown in Table 2, all the series became *I*(1) after the first difference. Furthermore, in Table 1 FDIO, POLSTAB and REGQ were *I*(0) under the ADF-Fisher test but the series became *I*(1) after the first difference, as indicated in Table 2. Under the PP-Fisher test, FDII, FDIO, POLSTAB and REGQ were *I*(0), as shown in Table 1, but the information in Table 2 indicates that all the series became *I*(1) after the first difference. The fact that the unit root tests indicate that the series have an admixture of *I*(0) and (1) implies that the ARDL framework can be employed in the study.

Having ascertained that the series are stationary, the study investigated the long-run relationship among the variables to check if a long-run association exists among the variables. We used both the Kao residual panel cointegration test and

Table 1. Panel unit root at level for the ECOWAS countries

Variable	Common unit root	Individual unit root		
	LLC	IPS	ADF-Fisher	PP-Fisher
LGDPPC	−0.70 (0.24)	1.61 (0.94)	8.95 (0.53)	9.43 (0.49)
FDII	−2.19 (0.01)*	−0.64 (0.25)	13.28 (0.20)	23.40 (0.009)*
FDIO	−1.46 (0.07)**	−1.57 (0.05)*	17.08 (0.07)**	28.90 (0.00)*
LNBT	1.20 (0.88)	1.19 (0.88)	4.68 (0.91)	11.90 (0.28)
TOPEN	1.20 (0.88)	1.26 (0.89)	3.64 (0.96)	5.20 (0.87)
REGQ	−4.84 (0.00)*	−5.29 (0.00)*	46.30 (0.00)*	21.40 (0.01)*
POLSTAB	−7.59 (0.00)*	−3.58 (0.00)*	42.40 (0.00)*	31.70 (0.00)*

Note: *, ** represent 5 and 10 percent level of significance respectively.

Source: own compilation.

Table 2. Panel unit root at first difference for the ECOWAS countries

	Common unit root	Individual unit root		
Variable	LLC	IPS	ADF-Fisher	PP-Fisher
ΔLGDPPC	2.02 (0.02)*	−1.89 (0.02)*	19.6 (0.03)*	20.5 (0.02)*
ΔFDII	−7.07 (0.00)*	−3.56 (0.00)*	31.3 (0.00)*	292.4 (0.00)*
ΔFDIO	−6.52 (0.00)*	−6.53 (0.00)*	56.3 (0.00)*	161.0 (0.00)*
ΔLNBT	−5.66 (0.00)*	−2.08 (0.01)*	25.1 (0.00)*	63.1 (0.00)*
ΔTOPEN	−1.81 (0.03)*	−3.10 (0.00)*	27.3 (0.00)*	61.3 (0.00)*
ΔREGQ	0.22 (0.59)	−4.82 (0.00)*	41.2 (0.00)*	96.2 (0.00)*
ΔPOLSTAB	−5.17 (0.00)*	−9.17 (0.00)*	81.9 (0.00)*	373.4 (0.00)*

Note: * represent 5 level of significance respectively.

Source: own compilation.

the Johansen Fisher panel cointegration test in this study. The decision rule under the Kao test is to reject the null hypothesis of no cointegration if the *p*-value of the residual is less than the 5% level of significance. Following the results in Table 3, the *p*-value of the residual at 0.0000 is less than 5%, thus suggesting that a cointegration exists among the series. The results of the Johansen Fisher cointegration test support the Kao cointegration test. As shown in Table 4, the Johansen-Fisher test indicates that both the Trace and Max-Eigenvalue tests have a *p*-value that is less than the 0.05 at all the levels, thus confirming the existence of a long-run relationship among the series.

Table 3. Kao residual cointegrationt Test for the ECOWAS countries

Series: LGDP FDII FDIO LNBT POLSTAB REGQ TOPEN Sample: 2000 2020 Included observations: 105 Null Hypothesis: No cointegration				
Variable	Coefficient	Std. error	*t*-statistic	Prob.
RESID(−1)	−0.346288	0.077454	−4.470908	0.0000

Source: own compilation.

Table 5 shows the short-run results of the ARDL for the ECOWAS bloc. The short-run results show that FDI inflows had a positive influence on the GDP *per capita*, but the outcome is not significant. However, the results of FDI outflows indicated a significant and negative impact on the GDP *per capita*. One unit increase in FDI outflows led to a fall in the GDP *per capita* by 0.003%. FDI outflows represent a diversion of resources out of the domestic economy. This implies that when these resources leave the shores of the country, the domestic economy is deprived of

Table 4. Johansen Fisher panel cointegration test for the ECOWAS countries

Unrestricted cointegration rank test (trace and maximum eigenvalue)				
Hypothesized No. of CE(s)	Fisher stat. (from trace test)	Prob.	Fisher stat. (from max-eigen test)	Prob.
None	6.931	0.731	6.931	0.731
At most 1	4.159	0.939	41.000	0.000
At most 2	73.680	0.000	92.100	0.000
At most 3	175.600	0.000	132.400	0.000
At most 4	80.610	0.000	55.770	0.000
At most 5	37.860	0.000	29.560	0.001
At most 6	27.720	0.002	27.720	0.002

Source: own compilation.

Table 5. Panel ARDL results for the ECOWAS countries – short-run results

Variable	Coefficient	Std. error	*t*-statistic	Prob.
ΔFDII	0.003	0.003	1.12	0.260
ΔFDIO	−0.003	0.001	−3.10	0.002
ΔLNBT	0.020	0.020	0.92	0.360
ΔTOPEN	−0.030	0.050	−0.59	0.550
ΔREGQ	−0.010	0.008	−1.30	0.190
ΔPOLSTAB	0.006	0.005	1.31	0.190

Source: own compilation.

the opportunity to use them for improving the economy. The only way in which FDI outflows can benefit the economy is when the proceeds of the investment are repatriated to the domestic economy. Furthermore, it is noticed that while terms of trade and political stability had a positive but non-significant impact on the GDP *per capita*, trade openness and regulatory requirement had a negative but non-significant impact on the GDP *per capita*.

As shown in Table 6, while FDI inflows had a positive but non-significant impact on the GDP *per capita* in the long run, the impact of FDI outflows was found to be negative but non-significant. The terms of trade were found to have a positive impact on the GDP *per capita*, even though the result was not significant, while the impact of trade openness was negative and significant. The result for trade openness indicate that one unit rise in trade openness resulted in improvement in GDP *per capita* by 0.20%. The economy of ECOWAS countries is mainly propelled by the export of primary products that compete unfavourably with the products of advanced economies. Therefore, opening up the economy of these

Table 6. Panel ARDL results for the ECOWAS countries – long-run results

Variable	Coefficient	Std. Error	*t*-statistic	Prob.
FDII	0.009	0.006	1.62	0.10
FDIO	−0.006	0.004	−1.42	0.15
LNBT	0.040	0.020	1.66	0.10
TOPEN	−0.200	0.030	−5.56	0.00
REGQ	0.070	0.010	5.40	0.00
POLSTAB	−0.130	0.010	−11.70	0.00
C	0.030	0.280	0.12	0.89

Source: own compilation.

countries could hurt them. The results of the two institutional quality variables indicate that, while political stability had a negative impact on the GDP *per capita*, the impact of regulatory requirement was positive.

Conclusions

In this study, we investigated the impact of openness of the economy and institutional quality on the economic performance of the ECOWAS using the panel ARDL with annual series covering a period from 2000 to 2020. The findings show that in the short run, regulatory requirement adversely affected the economic performance of the ECOWAS bloc. Additionally, FDI outflows had a negative impact on the performance of the economy of the ECOWAS bloc. The long-run results indicated that trade openness, FDI outflows and political stability adversely affected the economy of the ECOWAS bloc, while regulatory requirement influenced the economy positively. The long-run result of the impact of trade openness is a contradiction from the results of Wiredu et al. (2020) in a study comprising West African countries. The implication of the result is that, while it is necessary to attract FDI inflows to the ECOWAS bloc, opening up trade could hurt the economies of these countries because the countries comprising the bloc are mainly primary export producers whose products do not compete favourably with the products of developed economies. That is why, we recommend that the ECOWAS countries should introduce measures to attract more FDI, while stabilising their economies to discourage FDI outflows. Additionally, trade should mainly be carried out within the member countries and other developing countries to avoid experiencing adverse terms of trade. This calls for strong regulatory framework in the short and medium term and building a strong and stable political environ-

ment in the long term. A major limitation of the study is the inability to factor in the impact of capital controls on the GDP *per capita*. This is necessary considering that countries in ECOWAS adopt some capital control measures that restrict the penetration of capital into their economies. This could take the form of exchange rate or interest rate policies. Therefore, future studies should endeavour to include capital controls in a similar study, which entails employing appropriate proxies for capital control.

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