

# Theoretical and Practical Research in Economic Fields

Quarterly

Volume XV

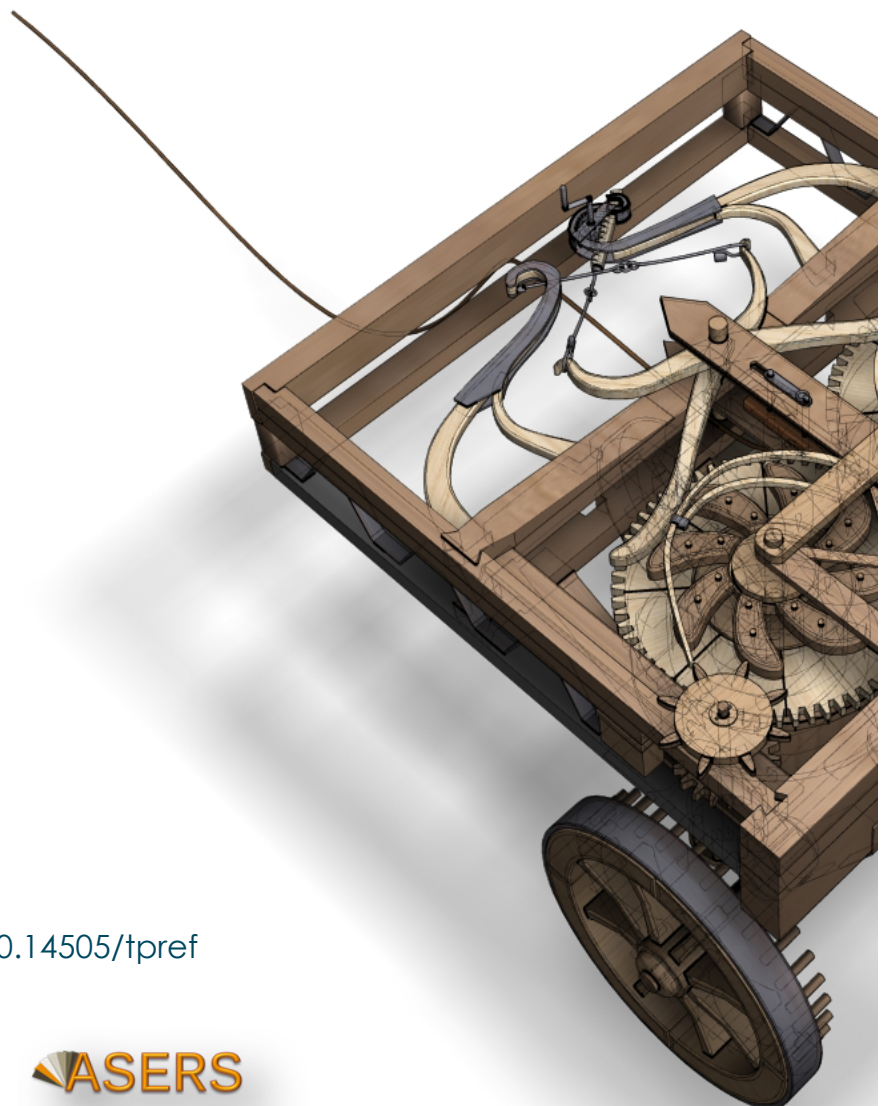
Issue 3(31)

Fall 2024

**ISSN:** 2068 – 7710

**Journal DOI:** <https://doi.org/10.14505/tpref>

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ISSN 2068 – 7710

Journal's Issue DOI:

[https://doi.org/10.14505/tpref.v15.3\(31\).00](https://doi.org/10.14505/tpref.v15.3(31).00)

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DOI: [https://doi.org/10.14505/tpref.v15.3\(31\).03](https://doi.org/10.14505/tpref.v15.3(31).03)

## Regional Trade and Financial Mobilisation as Preconditions for Economic Growth: The Case of ECOWAS

Emerson Abraham JACKSON  
Bank of Sierra Leone, Freetown, Sierra Leone  
ORCID: 0000-0002-2802-6152  
[ejackson1@bsl.gov.sl](mailto:ejackson1@bsl.gov.sl), [emersonjackson69@gmail.com](mailto:emersonjackson69@gmail.com)

Edmund Chijeh TAMUKE  
Bank of Sierra Leone, Freetown, Sierra Leone  
ORCID: 0000-0002-2320-6541  
[etamuke@bsl.gov.sl](mailto:etamuke@bsl.gov.sl)

Talatu JALLOH  
Kobe University, Japan  
ORCID: 0000-0003-4472-4601  
[talatujalloh00@gmail.com](mailto:talatujalloh00@gmail.com)

**Article info:** Received 29 May 2024; Received in revised form 28 June 2024; Accepted 31 July 2024; Published 30 September 2024. Copyright© 2024 The Author(s). Published by ASERS Publishing 2024. This is an open access article distributed under the terms of CC-BY 4.0 license.

**Abstract:** This empirical study delves into the Economic Community of West African States (ECOWAS) and its impact on economic growth through regional trade and financial mobilisation amongst its 15 member states. Through examination of data from 2005 to 2022, the study took into consideration a blend of static and dynamic panel data econometrics to explore nuances of trade openness, foreign direct investment (FDI), Domestic Credit to the Private Sector (CPS), and other factors influencing Real Gross Domestic Product (RGDP). The findings highlight a positive relationship between trade openness, FDI and economic growth, emphasising the importance of regional trade integration and foreign investment in driving economic development. Conversely, domestic credit shows a negative association with economic growth, thereby indicating the need for cautious assessment of credit allocation and financial sector efficiency. The study also reveals the important role of institutional quality in fostering economic growth, thereby recommending for policy reforms that strengthen governance frameworks and promote institutional resilience. Astonishingly, the analysis shows no significant relationship between inflation, transportation infrastructure, and economic growth. These insights contribute to a clear understanding of the dynamics between regional trade, financial mobilisation, and economic development within ECOWAS, thereby offering valuable implications for policymakers, with the aim of enhancing economic growth and integration in the region.

**Keywords:** regional trade; ECOWAS; financial mobilisation; economic growth.

**JEL Classification:** F15; F36; C01; O16; O40.

### Introduction

The Economic Community of West African States (ECOWAS) was initially setup in 1975 with the primary goal of fostering economic cooperation and integration among West African nations. Arising from a common vision to promote economic development and political stability, ECOWAS has been prominent in addressing common challenges and improving collaboration across its 15 member states. The rudimentary principles set by the Treaty of Lagos surround the establishment of a common market, the advancement of economic stability, and the facilitation of free movement of goods, services, and people (Ogbebor and Ohiomu, 2018). As years gone by through the implementation of different protocols and initiatives, ECOWAS has played important role in promoting regional integration, thereby providing a platform for member countries to promote collaborative ventures for economic development.

In view of the context, a critical research question is hereby proposed: How do regional trade and financial mobilisation in the ECOWAS impact the economic growth of its member states? An understanding of the historical development and operational framework of ECOWAS is important for grasping the complexities of its

economic landscape. While various studies, such as those produced by Juma and Mangeni (2018) have explored the organisational structure and governance mechanisms of ECOWAS, there seem to be a potential gap in comprehensively understand the contributions of regional trade and financial mobilisation to the economic growth of the member states. This research aims to drill down into the historical context of ECOWAS, thereby setting the stage for a detailed analysis of its economic dynamics.

The importance of regional trade within ECOWAS extends far beyond simple exchanges of goods and services; it is indeed considered a very important driver of economic growth in the region. Baita (2020) assumes that improving intra-regional trade can significantly increase GDP, create jobs, and reduce poverty. Through fostering collaboration among its member countries, ECOWAS have sought to establish synergies that boost economic productivity and competitiveness on a global scale. Simultaneously, financial mobilisation, including initiatives such as investment promotion and capital market development, is also considered important in providing the necessary resources to sustain economic activities. Sanusi (2012) stressed that an effective financial system is very important for promoting capital allocation, which invariably serves as a catalyst for investment and ultimately promoting economic growth.

This research has two primary objectives: (i) To assess the impact of regional trade on the economic growth of ECOWAS member states, and (ii) To examine the effectiveness of financial mobilisation strategies within the region. Through examination of these objectives, the research aims to disentangle the nuance relationship between regional trade patterns, financial structures, and overall economic growth, thereby providing valuable insights to both the academia and policymakers interested in enhancing economic growth within the ECOWAS framework.

Despite ECOWAS's notable progress in promoting regional integration, there also remains a noticeable gap in research concerning the complex interplay between regional trade, financial mobilisation, and sustained economic growth. Plethora of studies have tended to focus attention on isolated aspects of economic development without providing an overarching view of how these elements interact within the distinct context of ECOWAS. This research plans to bridge this gap by conducting a thorough analysis that surpasses superficial examinations of regional economic dynamics.

Identification of the research gap is very important as it acts as a crucial support for research objectives. It highlights the need for an intricate understanding of how regional trade and financial mobilisation jointly contribute to the all-embracing goal of economic growth within ECOWAS. Through recognition of this void in the current body of knowledge, this research not only seeks to fill the gap, but also aims to make considerable contribution to the academic discourse on regional economic integration. This effort aligns well with the broader goal of improving the effectiveness of policy decisions and strategies aimed at fostering sustainable economic development in the ECOWAS region.

The remaining part of the study is therefore outlined as follows: Section 2 is focused on the Literature Review, sub-divided into theoretical and empirical review, with emphasis on West African Economic and Monetary Union (WAEMU) and the West African Monetary Zone (WAMZ). Section 3 discusses the Methodology, incorporating background information on major Monetary and Economic Zones, also introducing Panel Data Econometrics to address heterogeneity within ECOWAS countries. Section 4 provides an analysis and description of the results. Finally, Section 5 summarises the findings, with proposed recommendations based that emanated from the research outcomes.

## **1. Literature Review**

### **1.1. Theories on Regional Trade and Financial Mobilisation**

Theoretical foundations play a very important role in understanding the complex dynamics of regional trade and financial mobilisation. To start with, the Gravity Model is often applied to explain trade flows; it posits that the intensity of trade between two regions is directly proportional to their economic size and conversely proportional to the geographical distance that separates them. The Gravity Model in the context of the ECOWAS offers awareness into the potential determinants of regional trade by taking into consideration factors such as economic size, proximity, and the impact of financial mobilisation strategies in promoting trade relationships among member states (Anderson, 1979). In addition, the New Trade Theory promoted by Paul Krugman emphasises economies of scale and product differentiation as drivers of international trade. This theory when applied in the context of ECOWAS suggests that a coordinated approach to financial mobilisation can facilitate the development of industries with economies of scale, thereby fostering specialisation and trade within the region (Krugman, 1980). Moreover, Institutional Theory provides a lens to examine how the regulatory frameworks and institutions within the ECOWAS influences regional trade and financial mobilisation. Institutional effectiveness relating to the

promotion of trade liberalization and economic cooperation is considered crucial in shaping the success of regional economic efforts (North, 1990).

Nonetheless, the theory of Financial Repression introduces caution by highlighting potential drawbacks of certain financial mobilisation strategies. The theory specifically argues that policies restricting financial markets may result in misallocation of resources, thereby hindering prospects for economic growth. This, therefore, prompts a critical examination of financial mobilisation approaches within ECOWAS, invariably urging policymakers to balance the benefits of increased capital with the potential risks associated with regulatory constraints (Shaw, 1973). Collectively, these theoretical perspectives provide a robust framework for understanding the nuance relationships between regional trade, financial mobilisation, and economic growth in context of the ECOWAS.

On a critical note, theoretical foundations are considered important for understanding the complexities of regional trade and financial mobilisation, with various theories offering valuable insights into the dynamics within the ECOWAS region. The Gravity Model, as clearly explained by Anderson (1979), is considered vital in explaining trade flows worldwide. Its application to ECOWAS demonstrates the significance of economic size, proximity, and financial mobilisation strategies in promoting intra-regional trade relationships. Furthermore, the New Trade Theory, originally championed by Krugman (1980), draws attention to the role of economies of scale and product differentiation in driving international trade. When applied to the ECOWAS, this theory proposes that coordinated financial mobilisation efforts can serve as a stimulant to industrial development and specialisation within the region. In addition, Institutional Theory, initially proposed by North (1990), demonstrates the influence of regulatory frameworks and institutions on regional trade dynamics. Collectively, these theoretical frameworks provide the foundation for understanding the complex relationships between regional trade, financial mobilisation, and economic growth in ECOWAS.

## 1.2. Empirical Review on Regional Trade and Financial Mobilisation Strategies in the ECOWAS

Research produced by Olofin, Salisu, Ademuyiwa and Owuru (2014) assesses ECOWAS's effectiveness in promoting regional trade from 1995 to 2010 by utilising a modified gravity model, with the findings indicating that economic size, distance, geographical factors, and socioeconomic variables significantly influencing regional trade in West Africa. The study also revealed that the francophone-dominated region (WAEMU) is export trade-creating, while the anglophone-dominated region (WAMZ) is trade-diverting, thereby emphasising the need for ECOWAS to foster close cooperation between the two blocs, while at the same time promoting an open approach to trade regardless of colonial origin for successful intra-regional trade facilitation.

In subsequent years, Ogbebor and Ohiomu (2018) empirically explore the impact of foreign direct investment (FDI) and trade openness on economic growth in the ECOWAS sub-region, presenting mixed results. Addressing the crucial challenge of poor living conditions in developing countries, the study covers the period 2000 to 2016, employing panel data. The analysis confirms series stationarity and co-integration, indicating long-run relationships among variables. Utilising panel regression, the study reveals significant and positive relationships between FDI, trade openness, and economic growth, suggesting the importance of consistent policymaking in ECOWAS member countries to enhance FDI inflows and trade openness for sustained economic growth.

Panel Unit Root and Cointegration Tests, with dynamic panel data study undertaken by Sissoko and Sloboda (2020) on economic development in the ECOWAS from 1996-2016 identifies Total Factor Productivity (TFP), law, and to some extent corruption as determinants of economic growth under the Arellano-Bond estimator. This further shows that inflation, Gross Domestic Savings (GDS), and TFP significantly impact economic growth in ECOWAS. The study emphasises that improving economic growth in ECOWAS countries demonstrates the importance of pro-growth policies and strengthened institutions, ultimately urging governments to prioritise these for sustained economic growth.

Continuing the chronological exploration, in 2020, Appiah, Li and Frowne's (2020) empirical study spanning 1996-2017 on 15 emerging economies within ECOWAS, using two-step SYS GMM estimators, reveals that financial development lacks a significant positive impact on economic growth in the region. The study also highlights conflicting effects of institutional quality variables, with control of corruption reducing growth and regulatory quality increasing it. Furthermore, the results indicate a positive association between capital formation and growth, while the labour force has a negative influence, leading to the conclusion that insufficient corruption control systems and underdeveloped financial sectors impede growth in the ECOWAS region.

Most recently, in 2023, the study by Olayemi and Fajimolu on the ECOWAS regional trade agreement investigates trade creation and trade diversion effects, particularly focusing on the period before the Nigerian

government-imposed importation bans. Employing an augmented gravity model, the research analyses bilateral trade flows, trade creation, and trade diversion within the region using data from 2008 to 2018. The study identifies factors such as GDP, population, and political stability in exporting countries as significant promoters of intra-regional bilateral trade flow, while variables like land area, being landlocked, and distance act as significant inhibitors. This research also shows the effect of membership in the Global System of Trade Preferences and the WAEMU on trade diversion and establishment within ECOWAS, thereby stressing the potential for enhanced trade creation provided member states hold steadfastly to the agreement terms.

More critically, the selected empirical studies provide valuable discernment into the effectiveness of regional trade and financial mobilisation strategies within the ECOWAS, thereby providing evidence-based guidance for policymakers. Olofin et al's (2014) assessment of ECOWAS's effectiveness in promoting regional trade shows the influence of economic size, distance, and colonial legacies on intra-regional trade dynamics. On a similar note, Ogbekor and Ohiomu (2018) show the positive effect of FDI and trade openness on economic growth within the sub-region, thereby emphasising the significance of consistent policymaking. In addition, study carried out by Sissoko and Sloboda (2020) identifies TPD, institutional quality, and corruption control as key determinants of economic growth within ECOWAS countries, which is also an indicative outcome from a study produced by Jackson (2017). On the other hand, Appiah, Li and Frowne (2020) study reveals challenges association with limited positive impact of financial development on growth and conflicting effects of institutional quality variables. Olayemi and Fajimolu (2023) research outcome emphasises the factors influencing intra-regional trade flow and the potential for enhanced trade creation within ECOWAS on account of the strict adherence to regional trade agreements. Collectively, these empirical findings provide crucial understanding into the problems of regional trade and financial mobilisation in ECOWAS, which is also indicative of informing policymakers' decisions and strategies towards fostering economic integration and growth within the region.

## 2. Methodology

Theoretically, economic growth in a closed economy relies on several factors, which includes macroeconomic stability, government spending, domestic investment, financial development, and institutional quality (Ciccone and Jarocinski, 2010; Butkiewicz and Yanikkaya, 2006; FitzGerald, 2006; Iqbal and Zahid, 1998; Sanchez-Robles, 1998; Barro, 1990). Collectively, these factors shape a nations' growth trajectory. However, when the economy is open, the dynamics of international trade becomes a critical component for growth expansion. The prevailing wisdom suggests that the volume of international trade between two regions is directly proportional to their economic size and inversely proportional to the geographical distance separating them. This implies that closer proximity tends to engage in more extensive trade relationships, leveraging their economic might and geographical advantages to drive commerce and exchange. This study expends on the normal traditional model by integrating regional trade and financial mobilization into a holistic growth function mathematically expressed as:

$$Real\ GDP = f(\text{regional trade, financial mobilisation, other factors}) \tag{1}$$

Unlike existing studies that focuses on isolated aspects of economic developments, this study diverges by using both comprehensive model that includes both regional trade dynamics and international financial mechanisms. Furthermore, this research provides new insights into how these factors collectively affects economic growth within the context of the Economic Communities of West African States (ECOWAS).

Utilizing a sample of panel data on the 15 countries<sup>1</sup> in ECOWAS over an 18-year period (2005 – 2022), the empirical model of the study is specified as follows:

$$RGDP_{it} = \alpha_0 + \underbrace{\alpha_1 Trade\_Openness_{it} + \alpha_2 DOT_{it}}_{\text{Regional Trade Variables}} + \underbrace{\alpha_3 FDI_{it} + \alpha_4 CPS_{it}}_{\text{Financial Mobilisation Variables}} + \sum_{j=3}^k \alpha_j X_{it} + \varepsilon_{it} \dots \tag{2}$$

where:  $RGDP_{it}$  is the dependent variable representing Real Gross Domestic Product for country  $i$  at time  $t$ ;  $Trade\_Openness_{it}$  (Trade Openness) and  $DOT_{it}$  (Direction of Trade) are the regional trade variables and;  $FDI_{it}$  (Foreign Direct Investment) and  $CPS_{it}$  (Domestic Credit to Private Sector) represents the financial

<sup>1</sup> Benin, Burkina Faso, Cote d'Ivoire, Cabo Verde, The Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone, Liberia, Togo.





hinges on the Hausman test. The null hypothesis posited in the Hausman test suggests that the preferred model is REM, whereas the alternative hypothesis proposes that the preferred model is FEM.

## 2.2. Dynamic Estimator

Although analysis of results will be primarily based on the Fixed effect estimator, often, Static, and dynamic models are used to cross-validate findings (Nathaniel *et al.* 2020; Khadraoui and Smida, 2012). This helps to enhance the robustness and reliability of results. In this study, a System Generalised Method of Moments (GMM) dynamic estimator was employed. The methodology relies on moment conditions derived from the first-differenced equation and the levels equation (Arellano and Bover, 1995; Blundell and Bond, 1998), allowing for efficient estimation of the parameters while controlling for unobserved heterogeneity and autocorrelation in the data. System GMM extends the basic GMM framework by instrumenting lagged levels of endogenous variables with lagged differences to capture both the short-run and long-run effects in dynamic panel models. The estimation process of System GMM involves two main steps: first, the system is differenced to eliminate individual-specific effects, and second, lagged levels are used as instruments to address endogeneity.

To implement System GMM, several diagnostic tests are commonly conducted to assess the validity of the model assumptions and the reliability of the estimates. These tests include testing for the presence of serial correlation, instrument validity, and over-identifying restrictions. Accordingly, and as suggested by Arellano and Bover (1995) and Blundell and Bond (1998), over-identification restriction was tested using both the Sargan test and Hansen statistic, which are test on the null hypotheses of instrument validity. For instruments to be valid, the null hypothesis must not be rejected. Additionally, the assumption that the error term is not serially correlated is also tested using first-order (AR1) and second-order (AR2) serial correlation. To meet this assumption, the null hypothesis of no-autocorrelation for AR1 must be rejected while that of AR2 must not be rejected.

Summary of data description is provided in Table 1.

Table 1. Variable Description

Variable	Source	Measure
RGDP	UNCTAD	Annual growth rate
Transportation infrastructure	UNCTAD	scale of 1 (worst) to 100 (best)
Institutions	UNCTAD	scale of 1 (worst) to 100 (best)
Inflation	UNCTAD	Annual average growth
Foreign Direct Investment	World Bank – WDI	FDI inflows (% GDP)
Domestic credit to private sector	World Bank – WDI	Domestic credit to private sector (%GDP)
Trade Openness	UNCTAD	Sum of export and import as a share of GDP
Direction of Trade	IMF	Goods, value of imports, cost insurance, freight (US dollars)

Source: Authors computation

## 3. Results and Discussion

### 3.1. Descriptive Statistics

The summary statistics reveal across several key indicators is presented in Table 2. The statistics provide insights into the central tendency, variability, and range of each variable in the dataset. Real Gross Domestic Product (RGDP) exhibits moderate variability, with a mean of 4.50 and a standard deviation of 3.94, showcasing a wide range of values from -20.49 to 21.08. Inflation rates are notably volatile, ranging from -3.23% to 34.70%, with a mean of 5.97 and a standard deviation of 6.31. Foreign Direct Investment (FDI) demonstrates considerable variability, with a mean of 5.01 and a standard deviation of 10.59, spanning from -2.79 to 103.34. Domestic credit to private sector (CPS) reveals moderate variability, ranging from 0.00 to 66.39, with a mean of 16.77 and a standard deviation of 12.79. Trade openness, Direction of Trade (DOT), transportation infrastructure, and institutional quality also display substantial variability across observations.

Table 2. Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
RGDP	270.00	4.50	3.94	-20.49	21.08
Inflation	270.00	5.97	6.31	-3.23	34.70
FDI	270.00	5.01	10.59	-2.79	103.34
CPS	266.00	16.77	12.79	0.00	66.39
Trade_Openess	269.00	63.26	32.52	21.12	270.62
DOT	270.00	455.49	1469.04	-976.76	7707.63
Trans_inf	270.00	24.30	13.80	1.10	61.50
Institution	270.00	42.07	10.55	22.10	69.00

Source: Authors Computation

### 3.2. Presentation of Empirical Findings

Table 3 presents three sets of static estimation outcomes for empirical scrutiny and discussion. These encompass the entire sample period (2005-2022) and are further divided into pre (2005-2006) and post (2008-2022) Global Financial Crisis (GFC) sub-samples. Utilizing Hausman test statistics for our analysis, the Fixed Effect estimator was identified as the most apt and efficient method for analysing both the Full Sample and the period following the Global Financial Crisis (GFC), while the Random Effect model was found to be more suitable for the Pre-GFC period. It's notable that during the Pre-GFC analysis, only the "Institution" variable displayed significant positive effects on economic growth, underscoring the differential impact of institutional quality in varied temporal contexts. Each estimation considered country-specific effects, effectively addressing potential issues of cross-sectional independence. When comparing the results, findings from the full sample closely aligned with those observed in the Post-GFC period, both in direction and significance. However, the Pre-GFC period displayed distinct results, potentially attributable to a significant reduction in sample size, thus impacting the statistical power of the analysis.

Referenced in Section 3, a System GMM estimation was applied to the entire dataset to corroborate the findings obtained from the Fixed Effect estimator. The outcomes of this ancillary analysis are documented in Appendix 1. The robustness and validity of these results are supported by the acceptance of the Sargan and Hansen tests, alongside the rejection of the AR(1) test for autocorrelation and acceptance of the AR(2) test, indicating no second-order autocorrelation and thus employing a lag instrument of 14, which falls below the number of cross-sectional units. Any deviations from these test outcomes could indicate potential specification bias. Analogous to the Post-GFC observations, the System GMM results consistently underpin the inferences made from the Fixed Effect model.

However, it's crucial to acknowledge that GMM estimators may yield suboptimal performances with smaller sample sizes due to their reliance on asymptotic properties, which may not be fully applicable in such scenarios, potentially leading to biased or imprecise estimates. Given our cross-sectional unit count is 15, and it is generally recommended to employ GMM for cross-sectional units exceeding 25, our findings utilizing System GMM may not hold valid, prompting our preference for the Fixed Effect model post-Hausman test application. The Fixed Effect model excels by accounting for unobserved heterogeneity that is constant over time but varies across the 15 selected countries. Furthermore, this model does not necessitate the use of instruments to control for unobserved heterogeneity, relying instead on within-entity changes—a significant advantage when suitable instruments are scarce or challenging to justify.

Table 3. Full Sample (2005- 2022) Pre\_ GFC (2005- 2006) and Post\_ GFC (2008-2022) for RGDP in the 15 ECOWAS Countries

VARIABLES	RGDP			RGDP_Post GFC			RGDP_Pre GFC		
	POLS	FE	RE	POLS	FE	RE	POLS	FE	RE
<b>Inflation</b>	-0.0815* (0.0423)	-0.0302 (0.0577)	-0.0817* (0.0437)	-0.147*** (0.0519)	-0.0625 (0.0688)	-0.145*** (0.0523)	0.089 (0.0698)	0.0139 (0.247)	0.0834 (0.0847)
<b>FDI</b>	0.0448* (0.024)	0.0747*** (0.0257)	0.0482** (0.0241)	0.0377 (0.0256)	0.0695** (0.0275)	0.0391 (0.0257)	-0.346 (0.282)	-0.209 (0.562)	-0.229 (0.318)
<b>CPS</b>	-0.0605** (0.0282)	-0.122** (0.0615)	-0.0654** (0.0297)	-0.0742** (0.0323)	-0.158* (0.0823)	-0.0749** (0.0329)	-0.0603 (0.0973)	0.0518 (0.386)	-0.0608 (0.123)
<b>Trade_Openness</b>	0.0218** (0.00857)	0.0417*** (0.0112)	0.0234*** (0.00876)	0.0309** (0.0124)	0.0490*** (0.0152)	0.0312** (0.0124)	0.0315** (0.0147)	-0.0109 (0.0759)	0.0261 (0.0179)
<b>DOT</b>	0.000442*** (0.000169)	0.000592* (0.00031)	0.000464*** (0.00018)	0.000505*** (0.000184)	0.000632* (0.00034)	0.000507*** (0.000187)	0.00122 (0.00071)	-0.00189 (0.0033)	0.000984 (0.0009)
<b>Trans_inf</b>	-0.0404** (0.02)	-0.0862 (0.0552)	-0.0415* (0.0214)	-0.0552** (0.0228)	-0.118* (0.0601)	-0.0558** (0.0233)	0.0294 (0.0515)	0.569 -1.44	0.023 (0.0679)
<b>Institution</b>	0.0677** (0.0301)	0.253*** (0.0711)	0.0748** (0.0323)	0.049 (0.0349)	0.273*** (0.0935)	0.0505 (0.0357)	0.229** (0.0845)	0.499 (0.341)	0.230** (0.103)
<b>Constant</b>	2.322* (1.217)	-5.101 (3.679)	2.005 (1.32)	3.525** (1.36)	4.815 (4.727)	3.448** (1.397)	-7.219* (3.818)	-30.62 (37.13)	-7.035 (4.69)
<b>Observations</b>	266	266	266	221	221	221	30	30	30
<b>R-squared</b>	0.097	0.152		0.121	0.165		0.372	0.378	
<b>country effect</b>	NO	YES	YES	NO	YES	YES	NO	YES	YES
<b>date effect</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>rmse</b>	3.822	3.723	3.798	3.893	3.8	3.885	2.82	1.937	1.767
<b>F-test</b>	3.947***	6.246***		4.174***	5.604***		1.862	0.694	
<b>Number of CrossID</b>		15	15		15	15		15	15
<b>F-test(u_i=0)</b>		1.984**			1.757**			2.761*	
<b>chi-squared</b>			28.68***			29.19***			8.206
<b>chi-squared (u_i=0)</b>			0			0.1			3.84**
<b>HausmanTest[Chi-Square]</b>			17.62**			33.55***			3.24

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. (Source: Authors computation)

The results in Table 3 reveal a divergent impact of regional trade, financial inclusion measures, and other factors on economic growth across different time periods. Specifically, findings from the full sample and post-GFC periods indicate a positive effect of regional trade, measured by Trade openness and the Direction of Trade (DOT), on economic growth. Conversely, the pre-GFC period exhibits an opposite and statistically insignificant relationship. All else equal, on average a percentage increase in Trade openness increases economic growth by 0.042% and 0.049% in the full sample and post-GFC respectively. In terms of DOT, on average a percentage point increase leads to a 0.001% increase in economic growth in both the full sample and post-GFC *ceteris paribus*.

Regarding financial inclusion, the results are mixed based on the measure. For Foreign Direct Investment (FDI), a statistically significant positive association is observed in both the full sample and post-GFC periods, while a contrasting negative relationship is evident in the pre-GFC period. The results revealed that a one percentage point increase in FDI for both the full and post-GFC samples, economic growth increases by 0.075% and 0.070% respectively, having other factors held constant. Similarly, Domestic credit to private sector (CPS) shows a statistically significant negative association in the full sample and post-GFC periods, but a positive relationship in the pre-GFC period. A one percentage point increase in CPS for both the full and post-GFC samples, economic growth decreases by 0.122% and 0.158% respectively, all else constant.

Inflation and transportation infrastructure, however, do not demonstrate any statistically significant associations with economic growth across all estimated samples. Notably, institutional quality shows a consistent positive and statistically significant association with economic growth in both the full sample and post-GFC sub-sample. The results showed that holding other factors constant, on average, a unit point increase in institutional quality increases economic growth by 0.253% and 0.273% for the full sample and post-GFC sample.

### 3.3. Discussion, Implications and Relevance to Economic Growth

The finding that increased trade between ECOWAS member countries would accelerate economic growth highlights the critical role of regional trade integration in fostering economic development within the West African region. Accepting the open trade policies within the ECOWAS is very important for removing trade barriers, fostering economic integration, and enhancing productivity growth. Supported by earlier studies (Ogbebor and Ohiomu, 2018; Olayemi and Fajimolu, 2023), this evidence highlights the necessity for policymakers to focus on trade liberalisation and introduce supporting policies. Such measures will seamlessly accommodate an environment conducive to continuous economic growth and widespread prosperity among its members nations.

Overall, the strong positive correlation between Foreign Direct Investment (FDI) and economic growth strongly suggests the need for policies that attract and facilitate foreign direct investment to sustain growth. Bekoe *et al.* 2021 and many other studies have all indicated that FDI inflows are crucial catalyst for economic expansion, trigger and enhance job creation, technology transfer and productivity within recipient economies. This also aligns with findings from Ogbebor and Ohiomu 2018. However, the findings from our own study unexpectedly identify a negative impact of Credit to the Private Sector (CPS) on economic growth. The outcome of this research will serve as a catalyst for policymakers to meticulously assess the quality, allocation, and supervision of domestic credit to guarantee its beneficial impact on the economic growth of ECOWAS countries. If domestic credit is solely used for consumption or channeled towards unproductive sectors, it may not effectively contribute to long-term economic prosperity. In addition to, such obstacles such as inadequate banking regulations, elevated interest rates and high levels of non-performing loans (NPLs) can undermine the potential of domestic credit to spur economic growth.

Furthermore, our analysis reveals that the impact of financial inclusions on economic growth significantly varies depending on the specific measured used.

Additionally, the data underscores that enhanced institutional quality is curtail for growth indicating the need for policymakers to focus on institutional reforms that strengthen governance and improve institutional resilience and effectiveness. The well-established institutions reduce risks, lower transaction costs, boost market efficiency, facilitate a better resource allocation and productivity and growth (Ragmoun, 2023). In the same vein a robust institution marked by transparent governance, strong rule of law, protected property rights, and efficient public services foster an environment that supports investment, innovation, and broader economic activities.

## 4. Conclusion

### 4.1. Summary of Key Findings n Relation to the Research Gap

This research has prudently tried to address the identified gap in the complex interaction between regional trade, financial mobilisation, and economic growth within the ECOWAS. Through the integration of the all-

inclusive analyses of the regional trade dynamics and financial mobilisation strategies, this study has focused on how these elements jointly influenced the economic prosperity of ECOWAS member states. The findings revealed that enhanced trade openness and directional trade positively affect economic growth, drawing attention to the pivotal role of intra-regional trade in facilitating economic growth.

In addition, the effect of FDI is proven to be significantly positive, emphasising its importance as a key driver of economic expansion through capital inflow, technology transfer, and job creation. Astoundingly, the study also discovers a negative association between CPS and economic growth, implying slackness in financial mobilisation mechanisms that can likely limit their contribution to economic development. The study's outcome further confirms a positive correlation between institutional quality and economic growth, implying the crucial role of robust governance structure in improving economic performance.

In a nutshell, these findings certainly address the research objectives by making clear the means through which regional trade and financial mobilisation contribute to economic growth, thereby satisfying the earlier identified research gap and offering a clear understanding of the economic dynamics within ECOWAS.

#### 4.2. Implications for Policymakers and Stakeholders

The findings of this study carry significant implications for policymakers and stakeholders within the ECOWAS region. Firstly, the positive impact of trade openness and directional trade on economic growth underscores the necessity of advancing policies that foster trade liberalisation and regional integration. Policymakers are encouraged to remove trade barriers, streamline customs procedures, and promote infrastructure development to facilitate easier movement of goods and services across borders. Secondly, the beneficial role of FDI in economic development highlights the importance of creating a conducive investment climate through policy stability, legal certainty, and efficient administrative processes. The negative association found between CPS and economic growth calls for a re-evaluation of financial sector policies to ensure that credit is efficiently allocated to productive sectors of the economy, enhancing financial inclusion, and supporting sustainable development. Moreover, the significance of institutional quality in driving economic growth underscores the need for ongoing reforms aimed at strengthening governance, enhancing transparency, and combating corruption. For stakeholders, including investors, businesses, and development agencies, these findings provide valuable insights for strategic decision-making, investment planning, and program development aimed at capitalizing on the growth opportunities within the ECOWAS region.

#### 4.3. Suggestions for Future Research

Future research should extend the insights of this study by investigating various key areas to understand and enhance the economic development within the ECOWAS region and potentially, beyond. The suggestions include:

- **Longitudinal studies:** There's a significant need for research that monitors the changing impacts of regional trade and financial mobilisation over time, especially considering an evolving economic landscape and potential external shocks like global financial crises.
- **Micro-level impacts:** Investigating the specific effects of trade and financial policies on individual sectors within ECOWAS member states could yield deeper understanding of economic growth drivers and inform sector-specific strategies.
- **Digital technologies:** Exploring how digital technologies can improve trade facilitation and financial inclusion is crucial, given the growing importance of the digital economy in regional and global markets – highlight of this was recently explored by Jalloh and Jackson (2023), which relates to Domestic Resource Mobilisation (DRM).
- **Comparative studies:** Conducting comparisons with other regional blocs could reveal valuable insights and effective practices in regional trade facilitation, financial mobilisation, and economic integration.

These areas of focus promise not only to enrich academic discourse but also to provide actionable insights for policymakers and stakeholders working towards economic advancement in the region.

#### Credit Authorship Contribution Statement

Authors have contributed equally to this research.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Declaration of Use of Generative AI and AI-Assisted Technologies

The authors declare that they have not used generative AI and AI-assisted technologies during the preparation of this work.

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## Appendices

Appendix 1: System GMM

VARIABLES	(1) SGMM1	(2) SGMM1-CL-a	(3) SGMM2	(4) SGMM2-CL-b	(5) SGMM2-CL-a
L.RGDP	0.0912* (0.0495)	0.179*** (0.0667)	0.0632 (0)	0.237 (0.230)	0.175** (0.0681)
Inflation	-0.0953** (0.0409)	-0.0616 (0.0377)	-0.0755 (0)	-0.0541 (0.0454)	-0.0501 (0.0664)
FDI	0.0383*** (0.0123)	0.0346*** (0.00761)	0.0370 (0)	0.0384*** (0.0130)	0.0345** (0.0146)
CPS	-0.0645** (0.0308)	-0.0826** (0.0396)	-0.103 (0)	-0.0457 (0.0290)	-0.0848** (0.0367)
Trade_Openness	0.0235*** (0.00677)	0.0277** (0.0113)	0.0276 (0)	0.0256* (0.0145)	0.0373* (0.0224)
DOT	0.000453*** (0.000125)	0.000354*** (6.02e-05)	0.000598 (0)	0.000304** (0.000120)	0.000343*** (8.46e-05)
Trans_inf	-0.0355*** (0.00829)	-0.0362*** (0.0121)	-0.00859 (0)	-0.0350 (0.0229)	-0.0293** (0.0130)
Institution	0.0595** (0.0297)	0.0769** (0.0370)	0.180 (0)	0.0373* (0.0222)	0.0674** (0.0316)
Constant	2.232*** (0.860)	1.037 (1.274)	-3.511 (0)	1.919* (1.059)	0.703 (1.172)
Observations	251	251	251	251	251
Number of CrossID	15	15	15	15	15
country effect	YES	YES	YES	YES	YES
date effect	NO	NO	NO	NO	NO
Hansen_test	11.60	8.172	11.60	4.745	8.172
Hansen_Prob	1	0.147	1	0.191	0.147
Sargan_test	215.9	5.630	215.9	16.20	5.630
Sargan_Prob	0.000229	0.344	0.000229	0.00103	0.344
AR(1)_test	-2.913	-2.432	-2.028	-1.832	-2.492
AR(1)_P-value	0.00358	0.0150	0.0426	0.0669	0.0127
AR(2)_test	-0.776	-0.524	-0.692	-0.197	-0.435
AR(2)_P-value	0.438	0.600	0.489	0.844	0.663
No. of Instruments	157	14	157	12	14

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

SGMM1 and SGMM2 denote One-Step and Two-Step GMM respectively. Also

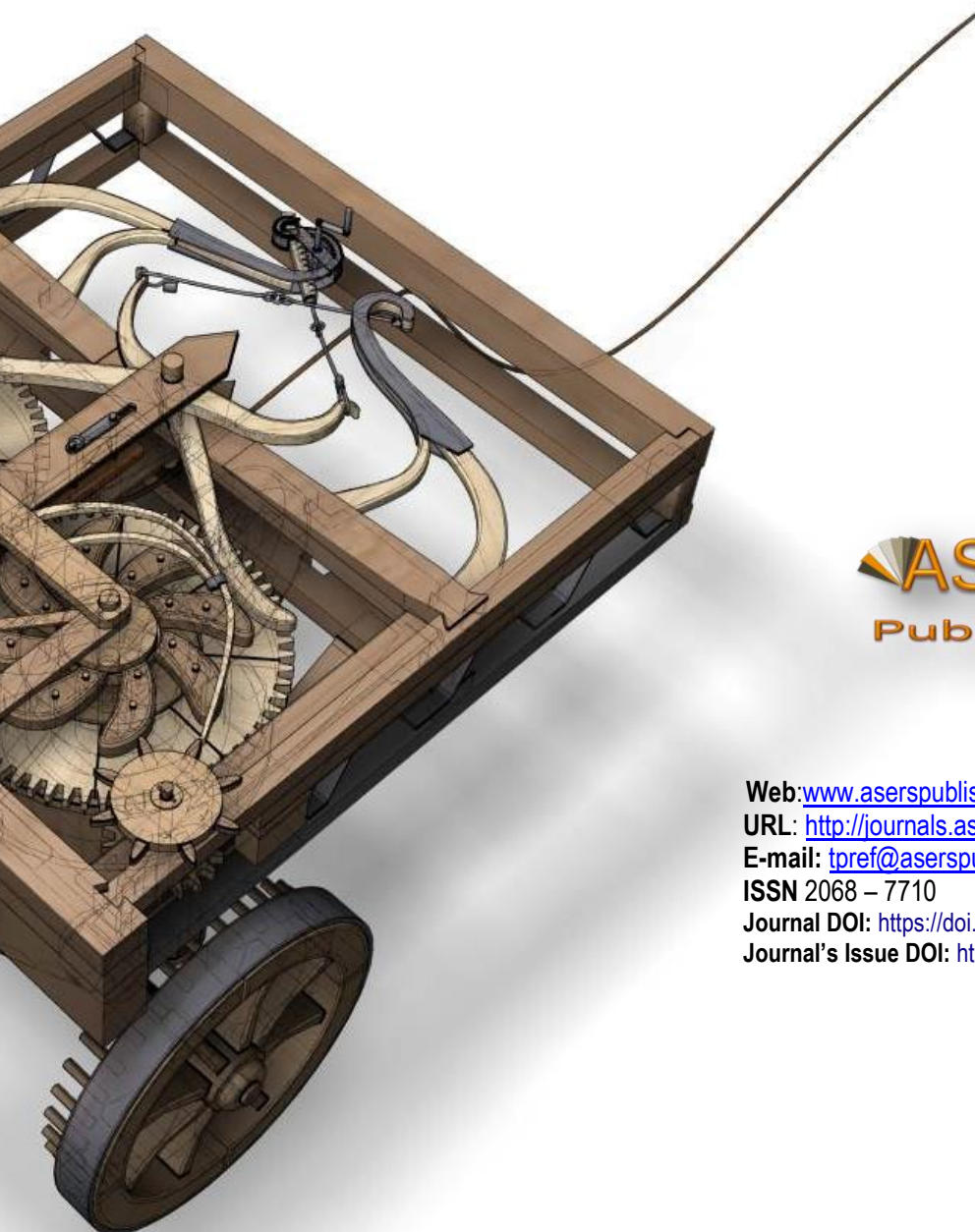
Regressions with suffix CL follow Roodman(2009b

and collapse the instrument matrix. a and b denote lag(1 5

and lag(2 4

respectively.

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ISSN 2068 – 7710

Journal DOI: <https://doi.org/10.14505/tpref>

Journal's Issue DOI: [https://doi.org/10.14505/tpref.v15.3\(31\).00](https://doi.org/10.14505/tpref.v15.3(31).00)