Proceedings of the Faculty of Economics in East Sarajevo
Year 2025, Issue 30, pp. 33-45
Received: 24th Decembre 2024

UDC 339.137.2:339.564(6)
DOI: 10.7251/ZREFIS2530033T
Preliminary Communication

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ECONOMIC PERFORMANCE OF REGIONAL TRADE BLOCS IN AFRICA

ЕКОНОМСКЕ ПЕРФОРМАНСЕ РЕГИОНАЛНИХ ТРГОВИНСКИХ БЛОКОВА У АФРИЦИ

Summary: *Despite the spread of trade blocs in Africa, the volume of intra-regional trade remained low. Meanwhile, study on the uneven growth patterns of trade blocs in Africa is scarce. This study analyses the economic performance of regional trade blocs in Africa.The time series data on four trade blocs were sourced from United Nations Conference Trade and Development databases from 1995 to 2022. The study employed the Autoregressive Distributed Lag approach.The result shows that while intra trade does not affect economic performance across the trade blocs, extra-trade shows a negative significant effect in Economic Community of West African States (ECOWAS) and a positive effect in Economic Community of Central African States (ECCAS) in the short run. Although, in the long run, intra-trade does not affect on economic performance across the trade blocs, extra trade show a positive significant effect only in ECCAS. The study submitted that the economic performance of trade blocs in Africa is not uniform, while ECCAS benefited from both intra trade and extra trade, the performance of other trade blocs is not impacted by both component of trade in both the short and long run except in ECOWAS which suffers a negative short run effect of extra trade. Policymakers need to promote intra-regional trade by streamlining customs procedures and fosteringconducive business environment. Also, there is need to explore new markets and trading opportunities both with members and with other trade blocs in Africa. The study contributes to a broader understanding of the differences and similarities in trade effects across different regions.*
Keywords: *Economic performance, trade blocs, trade integration, Africa, ARDL*
JEL classification: *F15, F14, O55, O32*

Резиме: *Упркос ширењу трговинских блокова у Африци, обим унутаррегионалне трговине и даље остаје низак. Истовремено, истраживања о обрасцима неуједначеног раста трговинских блокова у Африци релативно су ријетка. Ова студија анализира економске перформансе регионалних трговинских блокова у Африци. Временске серије података за четири трговинска блока прикупљени су из база Конференције Уједињених нација за трговину и развој (UNCTAD) за период од 1995. до 2022. године. У раду је коришћен приступ ауторегресивне дистрибуиране временске лаг структуре (ARDL). Резултати указују да, док унутрашња трговина нема значајан утицај на економске перформансе међу анализираним блоковима, спољна трговина у кратком року има негативан ефекат на Економску заједницу западноафричких држава (ECOWAS), а позитиван на Економску заједницу држава централне Африке (ECCAS). Дугорочно, док унутрашња трговина и даље нема утицаја на економске перформансе у блоковима, спољна трговина показује значајно позитиван утицај само у ECCAS-у. Студија закључује да економске перформансе трговинских блокова у Африци нису униформне. Док ECCAS има корист од оба типа трговине, перформансе осталих блокова нису значајно погођене ни унутрашњом ни спољном трговином, осим ECOWAS-а који трпи негативне краткорочне ефекте спољне трговине. Креатори економске политике треба да подстичу унутаррегионалну трговину кроз поједностављење царинских процедура и стварање повољнијег пословног окружења. Поред тога, потребно је истражити нова тржишта и трговинске могућности, како међу земљама чланицама тако и са другим трговинским блоковима у Африци. Ова студија доприноси ширем разумијевању разлика и сличности у трговинским ефектима у различитим регионима.*
Кључне речи: *економске перформансе, трговински блокови, трговинска интеграција, Африка, ARDL*
ЈЕЛ класификација: *F15, F14, O55, O32*

1. INTRODUCTION

Trade integration continued to gain prominence and acceptance of government and policy makers all over the world. The increasing acceptance of the regional agreement has been attributed not only to the success story of a number of the earliest trade alliance in developed countries such as the World Trade Organisation (WTO) and European Union (EU) but also due to the numerous benefits of

such agreements for member state and regional economic progress. Trade integration promotes convergent economic trajectories and shared economic prosperities of member nations (Seck *et al.* 2020), and provides access to large market, raise productivity and knowledge transfer benefits (Rodríguez Pose and Sotiriou 2019). It also enhanceseffective mobilization of capital, and regional value chains (Gammadigbe 2021)

The effect of trade integration on economic performance differs based on the levels of economic development of the region (Rodriguez-Pose 2012; Rodríguez Pose and Sotiriou, 2019). With regional integration, a more advanced neighbouring economies or groupingsare more likely to grow faster than the less developed neighbouring economies (Seck et al. 2020). However, when the timing of the opening to trade is considered, the increase in trade through integration does not necessarily always benefit the more developed regions or nations at the expense of the poorer ones as the territorial impact of trade can be quite different. Hence, more advanced and industrialised regions or nations with weak industrial structures are bound to suffer significant employment losses following increases in trade and economic integration with more advanced economies or regions. Thus, trade integration can have positive and negative economic impacts for a more developed and less developed region or country(Rodríguez Pose and Sotiriou 2019).

In Africa, trade integration is characterized by large variations in national competitiveness even among integrating nations. Worst still, economic growth has not kept pace with the goals and objective of integration in the region despite a host of policy changes to boost the benefit of many of the trade blocs that were formed (Menyah et al. 2014). The low volume of intra-regional trade and the disparity in national competitiveness among the member nations is partly blamed on the low status of development of the region compared to the developed region (IMF 202l).Despite several years of regional economic integration, the countries are poorly integrated and the region has continued to trade primarily with their former colonizers and increasingly with emerging economies including China. Furthermore, there is weak complementarity of economies in the region in relation to their poorly diversified structures (Gammadigbe 2017).

In the literature, several studies have explored the associated benefits and cost of trade integration (see Choe 2001; Arribaset al. 2020; Piton 2021; Fetahi-Vehapietal. 2015). However, limited studies abound providing empirical based test on the uneven growth patterns of a trade blocs at regional and sub-regional levels (Rodríguez Pose and Sotiriou, 2019). Meanwhile, there is increasing evidence that trade integration creates uneven growth patterns (Paluzie 2001; Kalliorasand Pinna 2015; Rodríguez Pose and Sotiriou 2019). This study is motivated to address this gap by investigating the mechanisms behind the relatively poor growth rate of regional trade blocs in Africa in the context of the deepening trade integration of the region.The broad objective of this study is investigates the economic performance of regional trade blocs in Africa. The specific objectives of the study are to:

- analyse the effect of intra trade on economic performance of trade blocs in Africa; and
- estimate the effect of extra trade on economic performance of trade blocs in Africa.

The analysis of the heterogeneous growth effects of trade integration in ECOWAS will help in formulating regional-wide policy to achieve the age-long objectives of regional trade blocs in Africa. This study provides insight for a better understanding of the uneven growth pattern effect of trade integration of trade blocs in Africa. The study takes a comparative approach by accounting for regional specifics and as such will provide insights to the underlying factors responsible for spatially generated growth spillovers associated with trade integration.

2. LITERATURE REVIEW

The evolution of Regional Economic Communities (RECs) in Africa started in 1970s (Awad andYussof 2017). However, out of the seventeen (17) regional trade blocs in existence, only eight (8) comprising of Common Market for Eastern and Southern Africa (COMESA), Southern African Development Community (SADCS), East African Community (EAC), Arab Maghreb Union (AMU), Economic Community of Central African States (ECCAS), Economic Community of West African States (ECOWAS), Intergovernmental Authority on Development (IGAD) and Community of Sahel-Saharan Community (CEN-SAD)are officially recognised by the African Union (Anyanwu, 2014; Awad, 2019). Although each country in the continent belongs to at least one of the eight major

Regional Economic Communities (RECs), they differ in many respects including economic or population size, age, main objectives and actual level of implementation (Seck, *et al.*, 2020). Among the eight officially recognised regional trade blocs in the continent, the five major ones comprises of COMESA, AMU, ECCAS, ECOWAS, and SADC while the remaining three are either overlapping with others or too large and heterogeneous. For instance, the West African Economic and Monetary Union (WAEMU) overlap with ECOWAS and; both IGAD and EAC are overlapping with COMESA excluding Somalia, South Sudan, and Tanzania. The Community of Sahel-Saharan States which is composed of 24 member countries is very large with heterogeneous counties (Seck et al. 2020).

The core theories on the welfare gains and losses that follows the formation of trade union include the Viner's customs union theory, and the general equilibrium theory.Viner (1950) in his custom union theory laid the foundation of the theory of economic integration where the interregional flow of goods and services as a result of integration caused by changes in customs tariffswas believed to either translate to trade creation or trade diversion in the economies of trade bloc. He associated trade creation which is the replacement of domestic production with a lower cost imports from a partner with welfare gains and trade diversion which is the replacement of lower costs cheaper costs imports from the world market by more expensive imports from a partner with welfare loss. Hence, whether or not trade bloc or integration is welfare increasing depends upon the relative magnitudes of trade creation and trade diversion (Viner 1950). Mende (1955) general equilibrium analysispointed out that the relative magnitudes of trade creation and trade diversion alone are insufficient to determine the welfare effect of a bloc because the benefits of preferential liberalization depends not only on the extent of trade creation but also on trade costs. Mende (1955) theory stated that in the presence of distortion, if all conditions under Pareto optimality are fulfilled, then neither the removal of some or all of the distortion will necessarily increase welfare, nor the addition of other distortions. When one sub-optimal is replaced by another sub-optimal situation, welfare may remain un-affected, increased or decreased. From this analysis, welfare comparisons between economies that are integrated are ambiguous. When some Pareto optimality conditions are met while others are not, welfare comparison needs to be done, so that no one is left worse off.

Several studies abound on the effect of trade integration on economic growth and on the welfare gains and losses of trade blocs. For instance, on the welfare gains and losses of members of trade bloc, Were (2015) examines the differential effects of trade on economic growth and investment based on cross country data from 1991 to 2011. Results on different categories of countries show that whereas trade has positively impacted economic growth in developed and developing countries, its effect is insignificant for least developed countries (LDCs) which largely include African countries. In the same vein, Fetahi-Vehapiet al. (2015) analyse the effects of openness to trade on economic growth of South East European (SEE) countries using a panel data of 10 SEE countries over the period 1996 to 2012. The results of the GMM estimation method show that the positive effects of trade openness on economic growth are conditioned by the initial income per capita and other explanatory variables, otherwise there is no robust evidence between these two variables. Moreover, the trade openness is more beneficial to countries with higher level of initial income per capita and as well favours countries with higher level of FDI and with higher gross fixed capital formation.

Rodríguez Pose and Sotiriou (2019) examine the link between increased trade and regional GDP growth across the regional income distribution in Greece during the post European Economic and Monetary Union (post-EMU) period (2000–2013). The result of the Quantile regression, panel fixed effects, generalized method of moments (GMM) production-function method shows that the impact of EU trade is highly heterogeneous and mainly affects negatively the economy of the richer regions in Greece. In contrast, the effects of EU trade display insignificant results for the lower-income regions, attributed to the absence of direct substitution effects. Similar result was established by Gammadigbe (2021) analyze the relationship between the quality of institutions and the performance of intra-community trade in West Africa from 1996 to 2018. Results show that the consolidation of regional integration in the WAEMU zone through the introduction of the CET in 2000 produced a positive effect, whereas the introduction of the ECOWAS CET in 2015 has not yet produced the expected effects. Similarly, Tinta et al. (2018) analyse the potential of regional integration through the advantage of global value chains in accelerating economic growth and achieving food security in ECOWAS. This study examines whether countries must develop strategies to raise international trade or adopt policies to reinforce regional trade. The result of the panel fixed effects shows that regional integration needs to be strengthen and better promoted to stimulate the potential of each country to move from discontinuous to sustained growth. In another study, Seck et al.

(2020) assess the regional growth potential of economic integration in Africa. The study develops a spatial dynamic panel data model to capture any spatial dependence of national growth trajectories through trade linkages. Results show strong evidence of a positive growth spillover effect across the continent as a whole, and trade turns out to be more conducive to these spillover gains than geographic proximity.

3. METHODOLOGY

This study is anchored on endogenous growth theory and the choice of this theory is because it provides a theoretical basis for explaining the channels through which trade influences economic growth. In order to compare the effect of trade integration on economic performance of trade blocs in Africa, the Seck *et al.* (2020)model was also adapted. In the model, aggregate economic performance (GDP_p) of trade blocs in Africa is expressed as a function of their respective intra-regional trade (IRT) and extra regional (ERT) trade measured by trade openness computed based on the ratio of the sum of export and import to GDP of the trade blocs respectively and the control variables comprising of investment (KF), labour force (LFP) and inflation (INF) of the trade blocsin a panel model.

$$\text{GDPp}_i = f(IRT_i, ERT_i, KF_i, LFP_i, INF_i) \qquad (3.1)$$

Where i is the trade bloc identifier representing ECOWAS, COMESA, ECCAS and SADC. The other trade blocs in Africa were ignored because they are either overlapping with others or too large and heterogeneous. In the analysis of the model, the dependent variable is GDP per capita growth is at first difference (D(GDPP)), and the independent variables include the lagged dependent variable, initial real trade (IRT), exchange rate (ERT), capital formation (LOG(KF)), labour force participation (LFP), and inflation (LOG(INFL)). The model captures short-run dynamics and long-run relationships with appropriate transformations and lag specifications as shown in equation 3.2:

$$D(GDPP_t) = \alpha_0 + \sum_{i=1}^{p} \alpha_1 D(GDPP_{t-i}) + \sum_{j=0}^{q} \alpha_2 D(IRT_{t-j}) + \sum_{k=0}^{r} \alpha_3 D(ERT_{t-k}, 2) + \sum_{m=0}^{s} \alpha_4 D(\ln(KF)_{t-m}) + \sum_{n=0}^{u} \alpha_5 D(LFP_{t-n}) + \sum_{v=0}^{w} \alpha_6 D(\ln(INFL)_{t-v}) + \lambda \text{CointEq}_{t-1} + \varepsilon_t \qquad 3.2$$

The short-run coefficients (α_i) capture immediate effects of changes in independent variables on $D(GDPP_t)$ with lagged effects as specified. Transformations include: $D(GDPP(-1))$: First-differenced lagged dependent variable; $D(IRT)$: First-differenced initial real trade; $D(ERT, 2)$: First-differenced exchange rate, lagged by two periods; $DLOG(KF)$: Log-differenced capital formation; $D(LFP)$: First-differenced labor force participation; and $DLOG(INFL)$: Log-differenced inflation. The long-run relationship is specified as:

$$GDPP_t = \beta_0 + \beta_1 GDPP_{t-1} + \beta_2 IRT_t + \beta_3 ERT_t + \beta_4 \ln(KF_t) + \beta_5 LFP_t + \beta_6 \ln(INFL_t) + \mu_t \qquad 3.3$$

Where:

$CointEq_{t-1}$ is the error correction term capturing long-run equilibrium adjustments and λ is the speed of adjustment coefficient, expected to be negative and statistically significant. The Short-Run Dynamics can be stated as follows:

$$D(GDPP_t) = \alpha_0 + \alpha_1 D(GDPP_{t-1}) + \alpha_2 D(IRT_t) + \alpha_3 D(ERT_{t-2}) + \alpha_4 D(\ln(KF_t)) + \alpha_5 D(LFP_t) + \alpha_6 D(\ln(INFL_t)) + \lambda CointEq_{t-1} + \varepsilon_t \qquad 3.4$$

The long-run relationship is given as:

$$GDPP_t = \beta_0 + \beta_1 GDPP_{t-1} + \beta_2 IRT_t + \beta_3 ERT_t + \beta_4 \ln(KF_t) + \beta_5 LFP_t + \beta_6 \ln(INFL_t) + \mu_t \quad 3.5$$

The main variables in the study include economic performance (GDPp), intra-trade (IRT); extra-trade (ERT) on trade blocs in Africa. The other variables are investment (KF), labour force (LFP), and inflation (INF). The measurement of the variables is presented in Table 3.1.

Table 3.1: Definition of Variables, Unit and Measurement

S/N	Description	Variables	Measurement	Unit	Source
1.	Economic Performance	GDP_P	This is the total GDP per capita	annual US dollars at current prices in millions	UNCTAD database
3	Intra-trade	IRT	This is the aggregate trade flows betweenmember countries of the trade bloc measured by trade openness	US dollars at current prices in millions	UNCTAD database
4	Extra-trade	ERT	This is the aggregate trade flows of the trade blocwithall with other trade blocsin Africa.	US dollars at current prices in millions	UNCTAD database
5	Investment	KF	Investment measured by gross capital formation	US dollars at current prices in millions	WDI database
6	Labour force participation	LFP	The is the percentage of the working-age population between aged 15 to 64 years	In rate	WDI database
7	Inflation	INF	Inflation is measured by consumer price index.	Annual average growth rate of CPI all items	WDI database

Source: Authors Compiilation, 2024

This study analyses aggregated time series data of four trade blocs in Africa comprising of ECOWAS, COMESA, ECCAS and SADC was used in the study. The data were sourced from United Nations Conference Trade and Development statistics databases (UNCTAD) covering a period of twenty eight (28) years from 1995 to 2022. The limitation in the scope is primary due to availability of data on intra and extra regional trade. In the database of the United Nations Conference Trade and Development (UNCTAD) statistics databases, the records of regional data on intra trade and extra trade across trade blocs of the world started in 1995.

In analysing the data, the Autoregressive Distributed Lag (panel-ARDL) technique was used. The estimation technique was developed by Peseran and Shin (1999) and used by Peseran et al. (2001). ARDL allows for joint estimation of relationships between variables in both the short-run and long-run; it also helps to verify if explanatory variable, have impact on the endogenous variable. It is an unbiased estimation of a long-run model which has advantages over some other conventional techniques. The choice of the estimation technique is because of its suitability in accounting for both the time series and cross-sectional dimensions of panel model simultaneously. Also, compared to other cointegrtion techniques, it is more suitable in dealing with small sample in cases of limited data, accommodates both stationary and non-stationary series which makes it flexible for analysing a wide range of economic and financial data.

4. RESULTS AND DISCUSSION

The preliminary results comprising of descriptive statistics, pairwise correlation coefficients, unit root tests are presented before the actual empirical analysis of the research objectives.

Table 4.1: Descriptive Statistics

	GDPP	IRT	ERT	KF	LFP	INFL
Mean	420954.6	0.000451	0.004516	92159.47	2.678885	12.67387
Median	443322.3	0.000313	0.003977	94230.83	2.683353	10.57808
Maximum	766133.3	0.003977	0.013197	182952.9	2.781739	58.88863
Minimum	102919.4	-0.002693	-0.000120	29154.94	2.486078	5.604255
Std. Dev.	250541.0	0.001498	0.003496	51253.39	0.085689	9.841668
Skewness	-0.055709	0.377709	1.212032	0.367945	-0.578195	3.919858
Kurtosis	1.366591	2.901985	3.837221	2.037813	2.237791	18.80677
Jarque-Bera	3.127179	0.676972	7.673201	1.711894	2.237898	363.2009
Probability	0.209383	0.712849	0.021567	0.424881	0.326623	0.000000
Observations	28	28	28	28	28	28

Source: Authors Computation, 2024

The descriptive statistics presented in Table 4.1 shows that the mean economic performance stands at 420,954.6 units. The variation is notable, ranging from a minimum of 102,919.4 to a maximum of 766,133.3. The standard deviation of 250,541.0 indicates a considerable dispersion around the mean. The skewness is slightly negative (-0.055709), suggesting a minor leftward asymmetry in the distribution, while the kurtosis of 1.366591 indicates a moderately peaked distribution. The Jarque-Bera statistic of 3.127179, with a p-value of 0.209383, does not provide strong evidence against normality. The variability in mean GDP, as indicated by the range and standard deviation, suggests economic disparities among member states. The negative skewness implies that there are relatively fewer extremely high GDP values. The moderate kurtosis indicates a somewhat peaked distribution. The normality test does not strongly reject normality, suggesting that the GDP distribution is reasonably close to a normal distribution. The implications are that while the trade blocs exhibits economic diversity, there is a tendency for stability and predictability in economic performance

For intra-trade (IRT) and extra-trade (ERT), mean values of 0.000451 and 0.004516, respectively, demonstrate relatively small average proportions. Both variables exhibit positive skewness, indicating a rightward skew in the distribution. The Jarque-Bera statistics, with p-values of 0.712849 for IRT and 0.021567 for ERT, suggest that the distributions may deviate from normality. The low mean values of intra-trade (IRT) and extra-trade (ERT) suggest that trade within and outside trade blocs, respectively form a relatively small part of the overall economic activity in Africa. The positive skewness in both variables indicates that there are fewer instances of extremely high trade values. The normality tests suggest that the distributions deviate from normal, implying that there high and low values intra-trade (IRT) and extra-trade (ERT)

The mean investment (KF) is 2.678885, with a standard deviation of 0.085689. The skewness of -0.578195 indicates a leftward skew, and the kurtosis of 2.237791 suggests a moderately peaked distribution. The Jarque-Bera statistic of 2.237898, with a p-value of 0.326623, does not provide strong evidence against normality. The mean investment signifies the average investment level within trade blocs. The leftward skewness suggests that there are fewer instances of extremely low investment values. The normality test does not provide strong evidence against normality, indicating a relatively stable trend in investment. This suggests that, on average, the region maintains a moderate level of investment without significant outliers.

Labour force participation (LFP) has a mean value of 12.67387, with a range from 5.604255 to 58.88863. The skewness of 3.919858 indicates a highly rightward-skewed distribution, and the kurtosis of 18.80677 suggests a heavily peaked distribution. The Jarque-Bera statistic of 363.2009, with a p-value of 0.000000, strongly rejects normality. The highly rightward-skewed distribution and high kurtosis suggest that there are instances of very high labour force participation rates, possibly due to specific economic activities or industries dominating certain periods. The normality test strongly rejects normality, indicating a distribution significantly deviating from a normal pattern. The

implications are that the labour force participation in Africa is characterized by periods of intense engagement, potentially linked to specific economic sectors or events.

Inflation (INF) has a mean value of 12.67387, with a standard deviation of 9.841668. The skewness of 3.919858 indicates a highly rightward-skewed distribution, and the kurtosis of 18.80677 suggests a heavily peaked distribution. The Jarque-Bera statistic of 363.2009, with a p-value of 0.000000, strongly rejects normality. The mean inflation rate of 12.67387, combined with the high standard deviation and positive skewness, indicates a notable variability in inflation within the region. The highly rightward-skewed distribution and high kurtosis suggest periods of relatively high inflation. The normality test strongly rejects normality, emphasizing the presence of non-normal patterns in inflation trends. The implications is that the region experiences periods of volatility, potentially influenced by economic events, policy decisions, or external factors.

Table 4.2: Unit root Tests

Variables		Augmented Dickey-Fuller test		Phillips-Perron test	
		Level	First Difference	Level	First Difference
GDPP		1.875931 (0.9828)	-3.357030 (0.0017)	1.607949 (0.9703)	-3.357030 (0.0017)
IRT		-4.942749 (0.0000)	-8.697386 (0.0000)	-4.942749 (0.0000)	-10.88882 (0.0000)
ERT		-1.182306 (0.2106)	-5.607957 (0.0000)	-1.162116 (0.2173)	-5.731586 (0.0000)
KF		2.120141 (0.9898)	-3.327507 (0.0018)	1.838403 (0.9814)	-3.327507 (0.0018)
LFP		-1.119540 (0.2312)	-7.241658 (0.0000)	-0.532675 (0.4767)	-3.191879 (0.0026)
INFL		-5.433068 (0.0000)	-2.542637 (0.0138)	-4.353408 (0.0001)	-25.12463 (0.0000)
Test critical values	1% level	-2.653401	-2.656915	-2.653401	-2.656915
	5% level	-1.953858	-1.954414	-1.953858	-1.954414
	10% level	-1.609571	-1.609329	-1.609571	-1.609329

Source: Authors Computation 2024

Both the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests suggest diverse stationarity properties among the key economic variables. While intra-trade and inflation appear to be stationary, other variables such as economic performance, extra-trade, investment, and labour force participation exhibit non-stationary behaviour at the level, becoming stationary after differencing.

In the analysis, economic performance (GDP_p) of each of the four trade blocs in Africa is expressed as a function of their respective intra-regional (IRT) and extra regional (ERT) trade and the control variables comprising of investment (KF), labour force (LFP) and inflation (INF).The result is presented in Table 4.3 as follows:

Table 4.3: ARDL Estimates of Model Two

ARDL Bounds Test	**ECOWAS**	**COMESA**	**ECCAS**	**SADC**
Test Statistic	**Value**	**Value**	**Value**	**Value**
F-statistic (k)	6.974344(6)	9.236928(6)	3.914256(5)	5.309431(6)
	I1 Bound	**I1 Bound**	**I1 Bound**	**I1 Bound**
Significance (5%)	3.61	3.61	3.79	3.61
Short Run Coefficients				
Variable	Coefficient	Coefficient	Coefficient	Coefficient
D(GDPP(-1))	0.000000 (0.7340) [0.390259]	0.000001 (0.4560) [0.91679]	**-0.297193** **(0.0394)** **[-2.622608]**	**-0.000001** **(0.0457)** **[-2.100864]**
D(IRT)	22.205639 (0.3698) [1.147888]	-2.757815 (0.8368) [-0.2339]	-2.040722 (0.7627) [-0.316029]	-0.710648 (0.7820) [-0.282461]

D(ERT, 2)	**-19.954424** **(0.0361)** **[-5.120918]**	9.294192 (0.2420) [1.643300]	**6.286987** **(0.0041)** **[4.497321]**	6.705491 (0.5821) [0.564408]
DLOG(KF)	**0.474405** **(0.0494)** **[4.328851]**	**0.619833** **(0.0294)** **[5.702837]**	**0.000011** **(0.0263)** **[2.929102]**	**0.000003** **(0.0335)** **[2.376861]**
D(LFP)	-2.705995 (0.2119) [-1.810597]	0.022932 (0.4941) [0.829361]	0.373793 (0.2386) [1.308316]	-0.530228 (0.5817) [-0.564963]
DLOG(INFL)	-0.019703 (0.8285) [-0.246167]	0.104506 (0.1514) [2.268013]	0.000629 (0.21370 [1.390631]	-0.000464 (0.7669) [-0.302703]
CointEq(-1)	**-2.894380** **(0.0464)** **[-4.478106]**	**-3.054772** **(0.0235)** **[-6.413046]**	**-0.371734** **(0.0028)** **[-4.872310]**	**-1.144961** **(0.0009)** **[-4.269321]**
Long Run Coefficients				
C	-2.768677 [0.1276] [-2.523655]	**-2.284834** **(0.0356)** **[-5.159317]**	1.843804 (0.4893) [0.736424]	0.582551 (0.3397) [0.991223]
GDPP(-1)	**-0.000001** **(0.0247)** **[-6.243891]**	**-0.000000** **(0.0347)** **[-5.227007]**	-0.000001 (0.1267) [-1.631596]	-0.000001 (0.1267) [-1.631596]
IRT	4.619742 (0.7983) [0.291261]	-5.187737 (0.3940) [-1.077343]	-31.575627 (0.3448) [-1.025140]	-0.620674 (0.7752) [-0.291525]
D(ERT)	-8.169327 (0.1078) [-2.793643]	3.847040 (0.3293) [1.278676]	**16.912609** **(0.0098)** **[3.727300]**	5.856522 (0.5936) [0.547089]
LOG(KF)	**0.173988** **(0.0463)** **[4.484809]**	**0.221071** **(0.0344)** **[5.251881]**	-0.000002 (0.8305) [-0.223610]	0.000003 (0.0670) [1.998723]
LFP	0.404066 (0.2393) [1.657101]	0.013393 (0.3389) [1.246139]	**3.416924** **(0.0082)** **[3.878032]**	-0.463097 (0.5587) [-0.600156]
LOG(INFL)	-0.002631 (0.9516) [-0.068482]	0.008138 (0.6539) [0.521725]	-0.001015 (0.5157) [-0.690527]	**-0.003735** **(0.0262)** **[-2.507442]**
R-squared	0.994662	0.993064	0.880279	0.754646
Adjusted R-squared	0.946622	0.934108	0.600929	0.584785
F-statistic	20.70494	16.84422	3.151169	4.442734
Prob(F-statistic)	0.047027	0.057445	0.082790	0.007849
Durbin-Watson stat	2.143295	2.081469	1.776808	2.382640

Note: Value outside, within the parentheses ( ) and [ ] are the coefficients, probability and t-values values respectively

Source: Authors Computation, 2024

In the result in Table 4.3, the F-statistics and associated I1 bounds are instrumental in determining the cointegration relationship among the variables. For ECOWAS, the F-statistic of 6.974344 is greater than the upper bound value of 3.61, indicating a significant cointegration relationship. Similarly, COMESA, ECCAS and SADC also exhibit significant cointegration relationships with the F-statistic of 9.236928, 3.91425 and 5.309431 above the upper bound value of 3.61, 3.61, 3.79 and 3.61 respectively.

In the short run, IRT in ECOWAS has a positive coefficient of which is not statistically significant, suggesting an insignificant positive impact of ECOWAS intra-trade (β =22.205639, t = 1.147888, p-value = 0.3698> 0.05) on economic performance. The coefficient is not statistically significant. In COMESA, the coefficient is negative but insignificant. The lack of significance implies that intra-trade (β =-2.757815, t = 0.8368, p-value = -0.2339 > 0.05) in COMESA does not significantly affect economic performance in COMESA. ECCAS exhibits insignificant negative coefficient. The lack of significance suggests that ECCAS intra-trade (β = -2.040722, t = 0.7627, p-value = -0.316029> 0.05) does not significantly influence economic performance. SADC exhibit negative insignificant coefficients being statistically significant. The economic implication is that intra-trade in SADC (β = -0.710648, t = 0.7820, p-value = -0.282461> 0.05) does not have a significant impact on economic performance in SADC.

ERT in ECOWAS has a large negative significant coefficient, indicating a significant negative impact of extra-trade in ECOWAS (β = -19.954424, t = -5.120918, p-value = 0.0361< 0.05) on

economic performance, and it is statistically significant. The highly significant negative impact indicates that an increase in extra-trade negatively influences economic performance in ECOWAS. In COMESA, the coefficient is positive but insignificant. The positive impact suggests that extra-trade in COMESA (β = 9.294192, t = 0.2420, p-value = 1.643300> 0.05) has a positive insignificant effect on economic performance. ECCAS show positive and statistically significant coefficients. The highly significant positive impact indicates that an increase in extra-trade (β = 6.286987, t =, p-value = 4.497321) significantly improves economic performance in ECCAS. SADC show positive and statistically significant coefficients. The lack of significance suggests that extra-trade (β=6.705491, t =0.564408, p-value = 0.5821> 0.05) does not significantly influence economic performance in SADC.

KF in ECOWAS has positive and significant coefficients, implying a positive significant impact of investment in ECOWAS (β= 0.474405, t = 0.0494, p-value = 4.328851> 0.05) on economic performance. The highly significant positive impact indicates that an increase in investment of COMESA (β= 0.619833, t = 0.0294, p-value = 5.702837> 0.05) significantly improves economic performance in COMESA. ECCAS also exhibit positive significant coefficients. The positive impact suggests that an increase in investment (β=0.000011; t = 0.0263, p-value = 2.929102> 0.05) has a significant positive effect on economic performance in ECCAS.SADC also exhibit a significant positive coefficients. The significant positive impact indicates that an increase in investment (β = 0.000003, t = 0.0335, p-value = 2.376861> 0.05) significantly improves economic performance in SADC.

LFP in ECOWAS has a negative and statistically insignificant coefficient, indicating a negative impact of labour force participation on economic performance. The lack of significance suggests that labour force participation in ECOWAS (β = -2.705995, t =-1.810597, p-value = 0.2119 > 0.05) does not significantly influence economic performance in ECOWAS. COMESA shows an insignificant positive coefficient. COMESA shows an insignificant positive coefficient. The lack of significance implies that labour force participation in COMESA (β = 0.022932, t =0.829361, p-value = 0.4941> 0.05) does not significantly affect economic performance in COMESA. ECCAS display positive insignificant coefficients. The positive insignificant impact suggests that labour force participation in ECCAS (β = 0.373793, t =1.308316, p-value = 0.2386 > 0.05) does not significantly improves economic performance in ECCAS. SADC display insignificant negative coefficients. The lack of significance implies that labour force participation in SADC (β = -0.530228, t =-0.564963, p-value = 0.5817> 0.05) does not significantly influence economic performance in SADC.

INFL in ECOWAS has a negative and statistically insignificant coefficient. The lack of significance suggests that inflation (β = -0.019703, t = -0.246167, p-value = 0.8285> 0.05) does not significantly affect economic performance in ECOWAS. COMESA exhibit insignificant positive coefficients. The positive impact indicates that an increase in inflation in COMESA (β = 0.104506, t = 2.268013, p-value = 0.1514> 0.05) does not significantly improves economic performance in COMESA. ECCAS exhibits positive insignificant coefficients. The lack of significance suggests that inflation on ECCAS (β = 0.000629; t =1.390631, p-value = 0.2137 > 0.05) does not significantly affect economic performance in ECCAS. SADC exhibit insignificant positive coefficients. The lack of significance implies that inflation in SADC (β= -0.000464, t = -0.302703, p-value = 0.7669> 0.05) does not significantly influence economic performance in SADC.

In the long run, the coefficient of the constant term in ECOWAS is negative (-2.768677), not significant (β=-2.768677, t = -2.523655, p-value = 0.1276 > 0.05). The lack of significance suggests that the constant does not significantly affect economic performance in ECOWAS. COMESA has negative coefficient (-2.284834) and highly significant (β = -2.284834, t =5.159317, p-value = -0.0356 < 0.05). The highly significant negative impact indicates that the constant significantly hampers economic performance in COMESA. ECCAS has a positive coefficient (1.843804) but insignificant coefficient (β =1.843804, t = 0.736424, p-value = 0.4893> 0.05). The lack of significance suggests that the constant does not significantly influence economic performance in ECCAS. SADC has a positive coefficient (0.582551) but insignificant (β= 0.582551, t = 0.991223, p-value = 0.3397> 0.05). The lack of significance implies that the constant does not significantly affect economic performance in SADC.

Intra trade in ECOWAS has a positive (4.619742) insignificant coefficient (β =4.619742, t = 0.7983, p-value = 0.291261> 0.05). The lack of significance suggests that intra-trade does not significantly affect economic performance in ECOWAS. COMESA has a negative (-5.187737) insignificant coefficient (-5.187737; t = 0.3940, p-value = -1.077343> 0.05). The lack of significance implies that intra-trade does not significantly affect economic performance in COMESA. ECCAS has

a negative (-31.575627) but insignificant coefficient (β=-31.575627, t = 0.3448, p-value = -1.025140> 0.05). The lack of significance suggests that intra-trade does not significantly affect economic performance in ECCAS. SADC: Negative coefficient (-0.620674), not significant (β=-0.620674, t = 0.7752, p-value = -0.291525> 0.05). The lack of significance implies that intra-trade does not significantly affect economic performance in SADC.

Extra trade in ECOWAS has a negative (-8.169327), insignificant coefficient (β=-8.169327, t = -2.793643, p-value = 0.1078> 0.05). The insignificant negative impact suggests that extra-trade has an insignificant negative effect on economic performance in ECOWAS. COMESA has a positive insignificant coefficient (β= 3.847040, t = 1.278676, p-value = 0.3293> 0.05). The lack of significance implies that extra-trade does not significantly affect economic performance in COMESA. ECCAS has a positive highly significant coefficient (β=16.912609, t = 3.727300, p-value = 0.0098< 0.05). The highly significant positive impact indicates that extra-trade significantly improves economic performance in ECCAS. SADC has a positive coefficient insignificant coefficient (β=5.856522, t =0.547089, p-value = 0.5936> 0.05). The lack of significance suggests that extra-trade does not significantly affect economic performance in SADC.

Investment in ECOWAS has a positive coefficient and highly significant (β= 0.173988, t = 4.484809, p-value = 0.0463> 0.05). The highly significant positive impact suggests that investment significantly improves economic performance in ECOWAS. COMESA has a positive (0.221071) highly insignificant coefficient (β = 0.221071, t = 5.251881, p-value = 0.0344< 0.05). The highly insignificant positive impact indicates that investment does not significantly improve economic performance in COMESA. ECCAS has a negative but insignificant coefficient (β= -0.000002, t =-0.223610, p-value = 0.8305 > 0.05). The lack of significance suggests that investment does not significantly affect economic performance in ECCAS. SADC has a positive (0.000003) but insignificant coefficient (β=0.000003, t =1.998723, p-value = 0.0670> 0.05). The lack of significance implies that investment does not significantly affect economic performance in SADC.

LFP in ECOWAS (has a positive and statistically significant coefficient, indicating a positive insignificant long-term impact of labour force participation (β=0.404066, t = 1.657101, p-value = 0.2393> 0.05) on economic performance. COMESA shows an insignificant positive coefficient, indicating a positive insignificant long-term impact of labour force participation (β= 0.013393, t = 1.246139, p-value = 0.3389> 0.05) on economic performance in COMESA. ECCA shows a significant positive coefficient, indicating a positive significant long-term impact of labour force participation (β= 3.416924, t = 3.878032, p-value = 0.0082< 0.05) on economic performance in ECCAS. SADC exhibit negative insignificant coefficients, indicating a positive insignificant long-term impact of labour force participation (β=-0.463097, t = -0.600156, p-value = 0.5587> 0.05) on economic performance in SADC

INFL in ECOWAS has negative insignificant coefficients, implying that inflation (β= -0.002631, t = -0.068482, p-value = 0.9516> 0.05) in ECOWAS does not have a significant effect on economic performance in ECOWAS. INFL in COMESA has negative insignificant coefficients, implying that inflation in COMESA (β=0.008138, t = 0.521725, p-value = 0.6539> 0.05) does not have a significant effect on economic performance in COMESA. ECCAS exhibit negative insignificant coefficients, implying that inflation (β=-0.001015, t = -0.690527, p-value = 0.5157> 0.05) does not have a significant effect on economic performance in ECCAS. SADC exhibit negative significant effect coefficients, implying that inflation (β=-0.003735, t = -2.507442, p-value = 0.0262< 0.05) have a significant negative effect on economic performance in SADC

Overall, the ARDL estimates show that in the short run, the lagged of GDPP have a positive significant effect on economic performance in both ECCAS and SADC. Intra trade does not show any effect across the trade blocs while investment shows a significant positive effect across the trade blocs. Extra-trade has a negative significant effect in ECOWAS and a positive effect in ECCAS. The CointEq(-1) coefficients in all trade blocs are negative and statistically significant, suggesting a long-term negative impact of the lagged cointegrating equation on economic performance. In the long run, the lagged of economic performance also shows a negative significant effect on economic performance in ECOWAS and COMESA. Intra-trade also does not show any effect on economic performance across the trade blocs. It is only in ECCAS that extra trade and labour force participation shows a positive significant effect on economic performance in the long run. In both ECOWAS and COMESA, investment maintains its short-run positive significant effect on economic performance in the long run. Inflation shows a significant long run effect on economic performance only in SADC.

5. CONCLUSION AND RECOMMENDATIONS

This study analyses aggregated time series data of trade blocs in Africa. The time series data are analysed using the Autoregressive Distributed Lag (ARDL) bound testing approach. The result shows that while intra trade does not affect economic performance across the trade blocs, extra-trade shows a negative significant effect in ECOWAS and a positive effect in ECCASin the short run. Although, in the long run, intra-trade does not affect on economic performance across the trade blocs, extra trade and labour force participation showa positive significant effect on economic performance only in ECCAS.The study submitted that the economic performance of trade blocs in Africa is not uniform, while ECCAS benefited from both intra trade and extra trade, the performance of other trade blocs is not impacted by both component of trade in both the short and long run except in the short run where ECOWAS suffer a negative effect of extra trade. The findings is supported by the study of Were (2015) which suggests that the positive effects of trade openness on economic growth are conditioned by initial income per capita and other explanatory variables. Equally, Ma (2022) found that the Belt and Road Initiative improved economic performance, particularly for lower-income countries.

Based on the findings of the study, the following recommendations are made: Policymakers should implement measures to promote intra-regional trade by reducing trade barriers, streamlining customs procedures, and fostering conducive business environment. Efforts should be made to explore new markets and trading opportunities both with members' states and with other trade blocs in Africa. Policymakers should focus on creating an attractive environment for both domestic and foreign investment. This includes implementing policies that support entrepreneurship, improving infrastructure, and providing incentives for investment in key sectors.

This study contributes to knowledge in several dimensions. By assessing the role of intra-regional and extra-regional trade, the study unravels the effect of intra-regional trade (trade among member countries) and extra-regional trade (trade with non-member African countries) on the economic performance. This assessment helps to show the significance of trade with both internal and external partners. Also, the study contributes to a broader understanding of the differences and similarities in trade effects across different regions. Future research could conduct a more dynamic analysis of intra-trade patterns within ECOWAS, considering how these patterns evolve over time and their impact on economic performance. Investigating the sector-specific impact of trade integration could provide insights into which industries benefit the most and contribute significantly to economic growth.

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