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EXCHANGE RATE, TRADE FACILITATION AND INTERNATIONAL FLOWS IN WEST AFRICAN MONETARY ZONE (1992-2021)

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ABSTRACT: *This study examined the relationships that exist between exchange rate, trade facilitation and international flows on economic growth in West African monetary zone (1992-2021).The study used annual data covering the periods 1992 to 2021 and the autoregressive distributed lag model (ARDLM) was employed. Preliminary tests like the unit root test, co-integration test and vector error correction model (VECM) were carried out during the study. Some of the explanatory variables and the explained variable were proxied, logged and differenced as the case may be so as to achieve the desired objectives without compromise. The study observed that the exchange rate has a negative influence on economic growth in the West African monetary zone, and trade facilitation and international flows have a positive influence on economic growth. The study, therefore, recommends that 1) diversification of the economy from import to the export-based economy is fundamental for economic growth and hence development. This can be achieved through efficient and effective regulation of foreign exchange and political stability, which are very volatile macroeconomic variables.(ii) A common currency basket in the West African monetary zone be established, as this will reduce the adverse effect of exchange rate volatility on trading partners across West Africa.*

KEYWORDS: Trade Openness, Monetary Zone, Financial Technology.

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INTRODUCTION

The economic community of the West African state (ECOWAS) introduced its economic and monetary programme (EMCP) in 1987 with the plan of having a distinct currency in 1994, though the date was postponed later to 2003. As of December 1999, a new initiative for ECOWAS economic integration led by Nigeria and Ghana came into being. The trust of the new initiative was to establish a second monetary zone called the West African Monetary Zone (WAMZ) by 2003 and subsequently merge the WAEMU and the second monetary zone by 2004 (Ndiaye & Korsu, 2014). In view of the establishment of the second monetary zone, the West African Monetary Institute (WAMI) was set up and started operation in 2001 with the view to preparing the stage for launching the single currency of the Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone by 2003. Making progress on the macroeconomic convergence criteria set for the establishment of the WAMZ and some policy and institutional harmonization agenda, it was obvious by 2003 that there was a necessity for shifting the establishment date. The said date was shifted to 2009 and later to 2015 while the merging of the second monetary zone and that of the WAEMU was set for 2020 (Ndiaye & Korsu, 2014). The rising efforts by member states for economic amalgamation in the ECOWAS region through the use of the ECOWAS Trade Liberalization Scheme (ETLS) which is the tool expected to produce the free trade area of the region while the joint ECOWAS-WAEMU Common External Tariff (CET) is the device expected to produce the custom union of the region. Trade continues to play a vital role in an open economy and serves as a major determinant of output and economic growth in a country (Chaudhary et al., 2016). It is the bedrock of our modern commercial world, as producers in various nations try to profit from an expanded market, rather than selling within their borders. Trade activities occur due to several reasons, including lesser manufacturing costs in one region versus another, specialized industries' lack, or surplus of natural resources, differences in consumer's taste and behaviour, and physical as well as geographic conditions of an area (Chaudhary et al., 2016). Nations specialize in the production and export of a commodity where comparative advantage exists and then import the commodity on which they have a comparative disadvantage so as to balance their economy. No nation can produce and absorb every commodity by itself (Ricardo, 1817). Trade across borders also ensures the efficient utilization of resources, thereby leading to the well-being of everyone in the society. However, many factors may affect trade between nations. In the context of high-risk aversion, the exchange rate volatility is the main obstacle to trade flows (Satawatananon, 2014; Senadza and Diaba, 2017). Transport networks, communication technology and energy are the major obstacles to most developing countries' trade. Poor infrastructure and institutions contribute to high trade costs in sub-Saharan African countries. The high cost of trade negatively impacts a country's economic performance in several ways (Perez et al, 2008). Moreover, data and evidence suggested that African countries were associated with the highest trade costs in the world.

Infrastructures are necessary to speed up the integration of a region in areas of trade and investment. In fact, they are critical to sustaining and increasing the intra- and inter-zone trade. An increase in trade and foreign direct investment (FDI) inflows, combined with other factors such as financial combination will result in a good production network and supply chains (Bhattacharyay, 2009). Infrastructures are an important factor for integration, based on the fact that they permit linkage between countries and expand the market scope, reduce transport costs and trade, and establish links with the value chain at both levels (regional and global) to facilitate economic cooperation and integration through physical connectivity. It is, therefore,

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necessary to smooth the progress of access to primary services (electricity and water) and trade-related infrastructure, including transport, and ICT. The exchange rate is the price or value of one country's currency expressed in terms of another. It determines the relative prices of domestic and foreign goods, as well as the strength of external sector contribution to the international trade (Adeniran, 2014). According to (Jhingan M.L., 2009) Foreign exchange rate or exchange rate is the rate at which one currency is exchanged for another, he went further to discuss the price of one currency in terms of another currency. The exchange rate is one of the macroeconomics indicators that impact the range of other macroeconomics aggregates, the most important are the gross domestic product (GDP), inflation rate, money supply and interest rate. Cornell (1982) presented a test of the joint hypothesis establishing a relationship between money supply announcements, how it affects the real interest rate, and how changes in real interest rate affect the exchange rate in the short run. He opined that the monetary model of the balance of payments simply implies that changes in the dollar price of foreign exchange will be positively correlated with the money supply as announced based on innovations. As one of its key objectives is to ensure exchange rate stability and hence promote trade. Senadza and Diaba (2017), also noted that exchange rate liberalization in sub-Saharan Africa SSA in the 1980s and 1990s led to a surge in exchange rate volatility. Also, Olayungbo et al. (2011) stated that the foreign exchange rate in Sub-Sahara African countries has been highly volatile based on the introduction of structural adjustment reforms since the early 1980s. Clark et al. (2004), on a similar note, asserts that the financial crisis in emerging markets, which have become more frequent in recent times, is especially notable in cases of high exchange rate volatility. Correspondingly, Tarawalie et al. (2012) submit that, although the market-determined exchange rate was helpful in the economic restoration experience of most African economies in the 1980s and 1990s, it has in no doubt led to an upsurge in exchange rate fluctuations. Again, Tarawalie et al. (2012) maintained that following the introduction of the Structural Adjustment Program (SAP), and the adoption of the floating exchange rate system, sharp currency depreciation in most of the West African Monetary Zone WAMZ countries causes an increase in the general price levels and a reduction in output growth. Fatum et al. (2018), opined that the slow growth rate in the aftermath of the global financial crisis GFC has prompted several countries to pursue economic policies that could devalue their respective currencies. However, the premise of depreciation leading to export growth and improvement in trade balance has not received a uniform conclusion in the literature (see Fatum, et al., 2018; Umaru, et al., 2018). The relationship between exchange rate changes and trade remains a problem.

Statement of the Problems, West African countries need to explore strategies that will encourage local demand for their goods and services and encourage the growth of import substitution and service industries for rapid economic growth and development. The objective of the study. The study aimed at evaluating the impact of the exchange rate, trade facilitation and international flows on economic growth among countries in the West African Monetary Zone.

LITERATURE REVIEW

Exchange rate, interest rate and other macroeconomics indicators remain an important focal point of discourse in International finance as well as in developing nations, which is a prerequisite for economic development (Adeniran, 2014). The volatility of the exchange rate gave rise to efforts by economists to focus their attention on monitoring the exchange rate and

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how it affects the economies. As such, different policies of exchange rate policies have been adopted (i.e. from fixed exchange rate to floating exchange rate) depending on which of the regimes as the case may be, favoured the prevailing condition in an economy for monitoring the purchasing power parity (PPP) and indeed the total output. According to Rodrik; overvaluation of exchange real rate remained the centre of attraction and it was strongly admonished against overvaluation (Rodrik, 2008), Rapetti also quoted Rodrik, in his summary states that a decrease in the overvaluation of the real exchange rate boosts economic growth, but all these facts are established on the developing countries only (Rapetti et. al. 2012). Ghura (1991) mentioned foreign credit among factors that gave rise to slow growth in sub-Saharan Africa.

The Economic Community of West African States (ECOWAS)

The Sub-Saharan Africa (SSA) countries have adopted several strategies in terms of exchange rate policy. In the early 1960s, the former British colonies dumped their currency boards to create their own currencies while the former French colonies decided to form a monetary union named “CFA franc zone”. These situations augment the spread of non-convertible currencies, which were seen and regarded as an impediment to trade, integration and economic development. In order to keep away from these impediments and promote regional integration and development as anticipated by the countries within the western part of Sub-Saharan Africa, ECOWAS was created on 28 May 1975, with the signing of the treaty of Lagos by the Heads of States of West African countries in Lagos (Nigeria). The objective of the organisation is the enhancement and development of its members through economic and political cooperation. Amongst the progress being achieved since the formation of the organisation are: the establishment of the free trade area, intra-regional passenger transport, infrastructural and mechanism for conflict resolution have been initiated, others are the issues of the community’s income which has been solved, and a functional court of justice which has been institutionalized (Cernicky, 2007), (Central Bank of Nigeria, 2016), (Issiaka & Blaise, 2013) and (Adeolu & Godwin, 2013) (Jelilov and Musa, 2016).ECOWAS is considered one of the pillars of the African Economic Community. The organization was founded in order to achieve "collective self-reliance" for its member states by creating a single large trading bloc through an economic and trading union. The organisation comprises two institutional units that engage in policy implementation, the ECOWAS Secretariat and the ECOWAS Bank for Investment and Development. Other monetary institutions associated with ECOWAS include the West African Monetary Agency (WAMA), West African Economic and Monetary Union (WAEMU), and West African Monetary Zone (WAMZ), (Central Bank of Nigeria, 2016). According to (Issiaka & Blaise, 2013), the West African Monetary Institute (WAMI) has been created for working towards the establishment of conditions for the launch of the ECO. This institute is saddled with the responsibility to carry out the multilateral surveillance of macroeconomic performance, establish the status of the Central Bank of West Africa, and design the structure and policy frameworks of the WAMZ monetary union. The lack of macroeconomic convergence has delayed the schedule. The launch date of the ECO has been postponed from 2003 to 2005 and to 2009. Taking into cognizance the effects of the global economic crisis on the macroeconomic convergence of the members’ economies, WAMZ countries have finally decided to reschedule the launching of the ECO after the creation of the Central Bank in Ghana after which the merger of the Eco and West African CFA franc was planned to be achieved by 2020. The economics of supply and demand dictates that when demand is high, prices rise and the currency appreciates. When the exchange rate appreciates,

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foreign goods become cheaper in the domestic market. Thus, there is an overall downward pressure on domestic prices. In contrast, the prices of domestic goods paid by foreigners go up, which tends to decrease foreign demand for domestic products. If there is no corresponding change in the relative prices in the rest of the world, the exchange rate appreciation would represent a decrease in the country's competitiveness, which will transmit to higher imports and lower exports, this event will deteriorate the balance of payment2 (hereinafter, Bop). In contrast, if a country imports more than it exports, there is relatively less demand for its currency, so prices should decline. In the case of currency, it depreciates or loses value. Exchange rate depreciation has the opposite effect. It tends to affect a country's balance of trade by improving the competitiveness of domestic goods in foreign markets while making foreign goods less competitive in the domestic market by becoming more expensive. Trade facilitation has been defined in a narrow sense as the transportation logistics and custom administration associated with cross border trade. In the recent past, this definition was broadened to include the environment where trade transactions take place. This includes the transparency of trade policy and regulation as well as product standards, infrastructure and technology as it applies to lowering trade costs (World Bank, 2009). Doing Business provides a number of measures on trading across borders. They show the procedural requirements for exporting and importing a standardised cargo of goods. The survey includes the exporting procedures which are divided into four stages, ie. pre-shipment activities (such as inspections and technical clearance), inland carriage and handling, terminal (port) handling, including storage if a certain storage period is required, and finally customs and technical control. Four areas are commonly addressed under trade facilitation: port efficiency, custom, regulatory environment and service sector infrastructure. Port efficiency measures the quality of infrastructure of maritime and airports. The custom environment regulates the direct custom costs and administrative transparency of customs and border crossings. The regulatory environment deals with the factors that are related to institutional issues and regulations. The service sector infrastructure represents the degree to which an economy has the infrastructure for telecommunications, financial intermediaries and logistic firms (Wilson et al.2005; Weerahewa, 2009). Business activities provide a number of measures when it comes to trading across borders. They, most times show the procedural requirements which are mandatory for exporting and importing a standardized cargo of goods. The assessment includes the exporting procedures which are divided into four stages, ie. pre-shipment activities (such as inspections and technical clearance), inland carriage and handling, terminal (port) handling, including storage if a certain storage period is required especially for goods that have expiry dates or non-durable commodities, and finally customs and technical control. The Abuja Treaty of 1994, defined in a framework of full regional integration of the African continent by the intensification of economies into a single continental market through a gradual process that will end at the horizon of 2028. This treaty aimed at eliminating tariff and non-tariff barriers distorting regional trade and the gradual harmonization of customs duties vis-à- vis member countries, the creation of a free trade area and the formation of a Customs Union with the adoption of a common external tariff, at the sub-regional and continental level, the institution of an African common market by adopting a common policy in a number of domains such as agriculture, transport and communications, industry, energy and scientific research; harmonization of monetary, financial and fiscal policies (Abdullahi, 2005; ECA, 2012).

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The Empirical literature

Empirically, there are numerous researches on exchange rate volatility and trade. However, there are few studies in the context of West Africa in particular, this review, therefore, brings together the relevant literature on this subject. In the African context, Edwards (1989), asserts that there are no indications that higher variability in the real exchange rate affects the level of exports. This result implies that volatility in the real exchange rate does not impact export. However, the study by Serenis and Tsounis (2014) using a measure of unexpected fluctuation found significant non-positive effects of volatility on exports for all the countries in their sample. Omojimite and Akpokodje (2010) empirically compared the effect of exchange rate volatility on the exports of CFA countries with that of their non-CFA counterparts during the period 1986 to 2006. Using the generalized autoregressive conditional heteroskedasticity (GARCH) model to generate the exchange rate volatility series, and merging the series into an export equation, and estimated using ordinary least squares (OLS), fixed effects, first difference generalized moment method (GMM) and system (GMM) equation techniques. The results reveal that exchange rate volatility negatively impacts the exports of both panels of countries. However, exchange rate volatility has a significant effect on the panel of the non-CFA countries than in the CFA countries. The paper in conclusion suggested the need to take appropriate monetary and fiscal policy actions to address the rising exchange rate volatility. Correspondingly, Olayungbo, Yinusa, and Akinlo (2011) investigate the impact of exchange rate volatility on trade in selected 40 sub-Saharan African countries from the period 1986 to 2005. The study uses a gravity model with pooled ordinary least squares (POLS) allowing for fixed effects and panel generalized method of moment (GMM) techniques. The results of the study show a non-negative net effect of exchange rate volatility on aggregate trade. The results also show that there is no significant difference between the impacts of exchange rate volatility on primary and manufactured trade as well as between the Economic Community of West African States (ECOWAS) and non-ECOWAS countries. The empirical analysis of Senadza and Diaba (2017) employs the pooled mean estimator of dynamic heterogeneous panel techniques to the data of economies in 11 sub-Saharan Africa from 1993 to 2014. Their paper uncovers little or no significant effects of exchange rate volatility on imports. In the case of exports, however, the study finds a non-positive effect of volatility in the short-run, but a positive impact in the long run. Martínez-Zarzoso and Márquez-Ramos (2008) study the effect of trade facilitation on sectoral non-zero trade volumes in 2000. Including variables from the Doing Business Database, which measure the costs and time involved in exporting and importing, they conclude that export volumes of homogeneous and reference-priced goods are less time-sensitive than export volumes of differentiated goods. Stone and Strutt (2009), showed that infrastructure development plays a key role in economic development. For them, this is backed by fact that trade is an important determinant of economic growth and infrastructure is a necessity for trade. Indeed, from a static general equilibrium model, these authors concluded that good transport infrastructure reduces transaction costs and facilitates trade, and further increases the potential of intra-regional trade in the sub-region of Great Mekong. Portugal-Perez and Wilson (2010), from an aggregate index of infrastructure, these authors to analyze the impact of infrastructure on the export performance of 101 developing countries over the period 2004-2007. They found that trade reforms increased export performance, particularly infrastructural investment and these reforms aimed at improving the business environment. For example, improving the quality of infrastructure in Egypt almost to the level of Tunisia, that is increasing exports by 10.8 per cent. These authors also find that the marginal effect of infrastructure on exports declines with per capita income, and on the

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contrary, the impact of ICT on exports increases in rich countries. In order to find strategies to improve the Ghanaian exports and in turn, promote economic growth, Amoah (2014), analyzes the determinants of Ghana's exports to Africa. The methodology used is based on the estimation of a gravity equation with trade data from 49 countries importing from Ghana. The results show that the WAEMU countries and trade costs (infrastructure, distance ...) can explain Ghana's exports. Indeed, improved infrastructure will increase the Ghanaian trade significantly and positively. Similarly, D'Adamo & Rovelli (2015) used Balassa-Samuelson OLS to examine the significance of the exchange rate regime in the real and nominal convergence process. The study showed that, for nations that fixed or adopted the euro currency, the effect of an increase in the dual productivity growth (the difference in productivity growth between the tradable and non-tradable sectors of the economy) on the dual inflation differential is twice as large as that inflexible countries. The study concluded that in catching-up countries, too early adoption of the euro may foster excess inflation beyond what would be implied by B-S convergence only.

Methodology of the study design and Sources of Data

The part of this research methodology is *ex-post-facto* and analytical design. This context is based on the systematic use of techniques for conducting a research-based hypothesis which is associated with models one and two. The data is sourced from published articles, world bank development indicators and United Nations Conference on Trade and Development. The study employed annual panel data of three countries in the West African Monetary Zone(WAMZ), namely Nigeria, Ghana and Gambia which span from 1992 to 2021 (30 yrs). The choice of 1992 as the base year for the study is premised on the first time Burkina Faso president was the chairman of ECOWAS Blaise Compaoré (1990–1991), although the birth of WAMZ was the year 2000 and one will rightly conclude that WAMZ is a subset of ECOWAS. The model used in this work is an autoregressive distributed lag (ARDL) model. The variables selected for this study are as follows: GDPGR ---Gross domestic product growth rate, CPS --- Credit to the private sector, EXPORT – Export of goods and services, NFF - Net Financial Flows, NFA ---- Net Financial asset, NTGS --- Net trade in goods and services, INFL ---- Inflation at local currency prices(LCP), EXCH ---Official exchange rate, POP ---- Total Population of an individual country.

The Model Specification

The study employed the autoregressive distributed lag model (ARDL) based on the fact that such a model is good for panel data estimation especially when it involves large samples. Three west African countries are analysed using this autoregressive distributed lag model (ARDL) which are Nigeria, Ghana and Gambia. These countries are the main focus of the study. They represent a combination of economies with the largest real gross domestic product, in the West African Monetary Zone. The study will carry out some other tests like unit root, parameter stability (Wald test), co-integration and test for causality where it is necessary.

The unit root test: **Statement of Hypothesis**, **H_0: Series has a Unit root**, **H_1: Series has no Unit root**: **Decision criteria:** Reject the null hypothesis if the value of the augmented dick-fuller test is more negative than the critical value at a 5% level of significance, otherwise accept the null.

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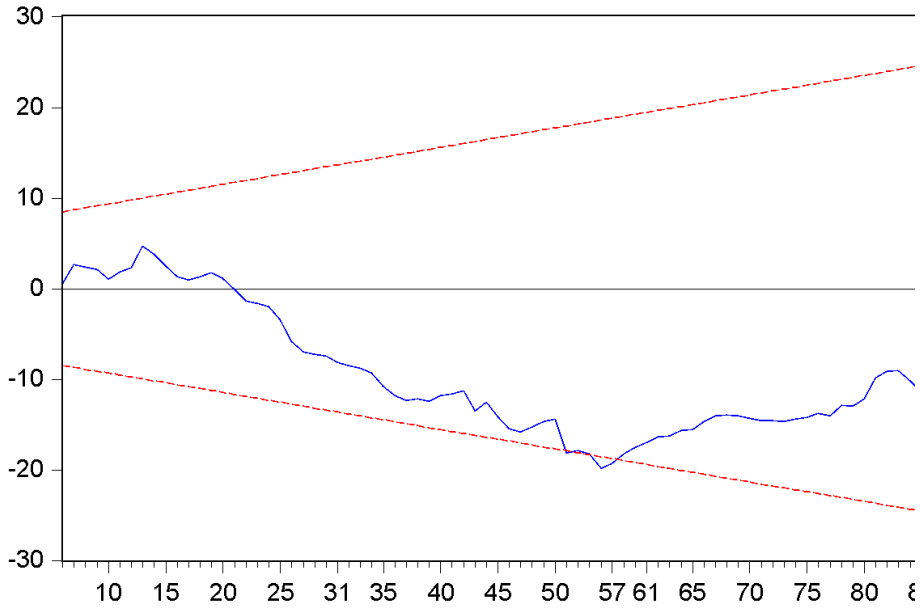
Table 4.1

Variables	Critical V.5%	ADF stat	P-Values	Order of Diff	Intercept/trend	Hypothesis
GDPGR	-1.9448	-2.0436	0.0400	1(0)	none	Reject null
CPS	-1.945081	-8.7147	0.0000	1(1)	none	Reject null
EXPORT	-1.9448	-8.5643	0.0000	1(1)	none	Reject null
NFF	-1.9459	-4.7991	0.0000	1(0)	none	Reject null
LNNFA	-1.9459	-6.1998	0.0000	1(1)	none	Reject null
NTGS	-1.9455	-82961	0.0000	1(1)	none	Reject null
INFL	-1.9447	-2.4506	0.0146	1(0)	none	Reject null
EXCH	-1.9445	-8.8387	0.0000	1(1)	none	Reject null
POP	-1.9445	-10.7314	0.0000	1(1)	none	Reject null

Source: Researchers computation, from the table 4.1, it is observed that the gross domestic product growth rate, net financial flows and inflation rate were stationary at levels 1(0)., where their respective ADF statistical values (-2.0436, -4.7991 and -2.4506 at a 5% critical values of -1.9448, -1.9459 and -1.9447 respectively. Other variables were stationary at difference order one 1(1). Based on these criteria, the null hypothesis of unit root presence was not accepted. Since stationary levels were achieved through a difference of order zero 1(0) and order one 1(1) as the case may be, the study choose to apply the bounds cointegration test as tools appropriate for the determination of long and short-run association in the model. Parameter Stability Test, MODEL 1

$$Y_{t-1} = \beta_0 + Y_{t-1} + \beta_1 X_{t-i} + \beta_2 X_{t-i} + \beta_3 X_{t-i} + \beta_4 X_{t-i} + e_{t-i}$$

Table 4.2



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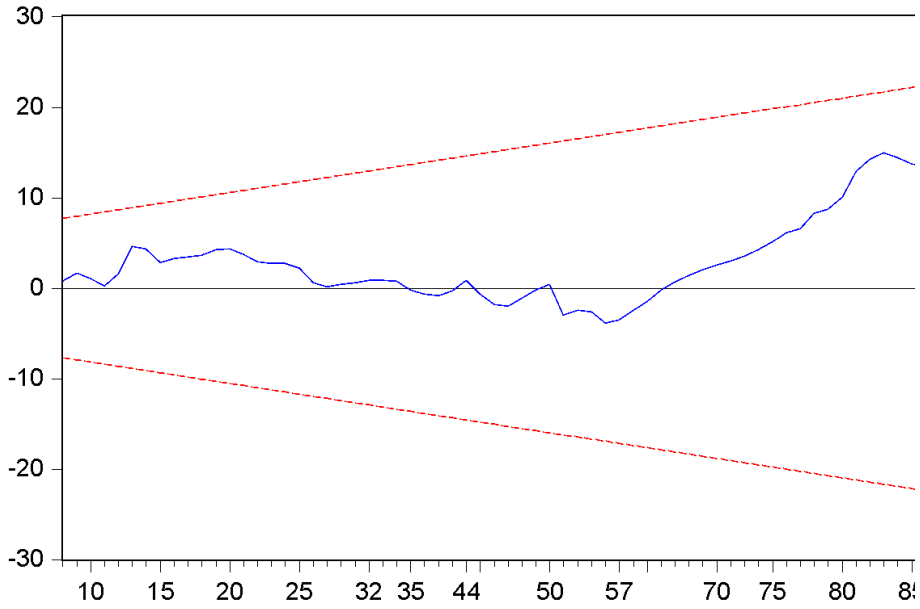
From Table 4.2, it is observed that the parameter blue line is in between the two 5% significant red lines and could be inferred that the parameters are stable over the period under study. However, at point 57 in the graph, the line nearly deviated because that is the only point where the line touched the 5% significant line. MODEL 2

$$Y_{t-1} = \beta_0 + Y_{t-i} + \beta_1 X_{t-i} + \beta_2 X_{t-i} + \beta_3 X_{t-i} + \beta_4 X_{t-i} + e_{t-1}$$

Table 4.3



From Table 4.3, it is observed that the parameter blue line is in between the two 5% significant red lines and could be inferred that the parameters are stable over the period under study. Correlation Test, MODEL 1, Statement of Hypothesis, H_0: There is no serial correlation, H_1: There is a serial correlation: Decision Criteria: Reject the null hypothesis if the probability value of F-statistic and Observed R-squared are greater than the 5% level of significance, otherwise accept the null.

Table 4.4

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.823837	Prob. F(2,77)	0.4426
Obs*R-squared	1.780756	Prob. Chi-Square(2)	0.4105

MODEL 2

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Table 4.5

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.825105	Prob. F(2,62)	0.1698
Obs*R-squared	3.892062	Prob. Chi-Square(2)	0.1428

Bounds Cointegration Test

Table 4.6: Statement of HypothesisH_0: There is no Co integrationH_1: H_0 is not true

Decision criteria: Reject the null hypothesis if the value of the F-statistic is greater than the upper bounds level at a 5% level of significance or accept the null if the value of F-statistic is less than the lower bound level.

ARDL BOUNDS TEST	F-STAT VALUE	CRITICAL VALUES	I(0) BOUND	I(1) BOUND
	8.515790	10%	2.26	3.36
TEST STAT -5%		5%	2.62	3.79
		2.5%	2.96	4.18
		1%	4.68	4.68

Vector Error Correction Model (VECM)

Lag Order selection Table

Table 4.7

VAR Lag Order Selection Criteria
Endogenous variables: GDPGR CPS LNNFA NFF LNEXPT EXCH INFLCP
Exogenous variables: C
Date: 05/23/21 Time: 20:29
Sample: 1 90
Included observations: 63

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-2514.296	NA	1.36e+26	80.04114	80.27927	80.13480
1	-2133.684	664.5612	3.68e+21	69.51377	71.41877*	70.26301*
2	-2065.868	103.3384*	2.14e+21*	68.91644*	72.48833	70.32128

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The study in table 4.7 selected Akaieke AIC (68.91644) which is the lowest value as shown in the table, therefore, our optimal lag length is two (2).

Table 4.8

Dependent Variable: GDPGR
Method: Panel Least Squares
Date: 05/23/21 Time: 21:00
Sample: 1 90
Periods included: 26
Cross-sections included: 3
Total panel (unbalanced) observations: 61

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.979765	0.591083	6.733004	0.0000
D(GDPGR(-2))	0.108090	0.111487	0.969538	0.3367
D(CPS(-2))	0.067612	0.269698	0.250696	0.8030
D(LNEXPT(-2))	4.444663	2.219540	2.002516	0.0504
D(LNNFA(-2))	0.998035	1.033868	0.965341	0.3388
D(EXCH(-2))	-0.023566	0.039305	-0.599564	0.5514
D(NFF(-2))	2.50E-10	7.49E-10	0.333481	0.7401
ECT1(-1)	-0.105113	0.280990	-0.374080	0.7098

Table 4.8 displayed the long-run dynamics in respect of long-run relationship. The value of ECT(-1) represents the long-run relationship with (-0.105113) and the non-significance value of the probability level (0.7098). It, therefore, implies that any deviation occasion by shocks in the short intervals will correct itself in the long run at the speed of 10.51% adjustment in terms of convergence over time. The whole system can get back to equilibrium at 10.51% speed in the long run or the previous deviation from normal can be adjusted for in the subsequent period at the speed of 10.51%.

The Short-run Causal Effect Table(Wald Test): **Statement of hypothesis**,H_0 **: C(4) =C(5)= C(6) =0**,H_1 **: C(4) =C(5) = C(6) ≠0**

Table 4.9

Wald Test:
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	6.667748	(3, 67)	0.0005
Chi-square	20.00325	3	0.0002

Null Hypothesis: C(2)=C(3)=C(4)=0

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Table 4..9 Indicate that there is a short-run causality and stands as evidence of short-run causality test where the probability of F-statistics(0.0005) and chi-square (0.002) are not greater than 5% level of significance.This indicates that C(2) = C(3) = C(4) is not equal to zero and does cause GDPGR in the short run, therefore, the null hypothesis is not accepted and we then state that C(2)=C(3) =C(4) ≠ 0.This implied that the private sector credit, the net financial flows and net financial assets cause the gross domestic product growth rate.

Test of Hypothesis

Statement of Hypothesis One in Null and Alternate form.

H_0: Trade facilitation did not have a positive effect on the economic growth of countries in the West African Monetary Zone from 1992 to 2021.

H_1: Trade facilitation has a positive effect on the economic growth of countries in the West African Monetary Zone from 1992 to 2021.

Table 4.10

ARDL TABLE

Variables	coefficients	p-values	T-statistics	Dw statistics
CPS	0.169724	0.1770	1.363447	2.16
POP	2.363606	0.3999	0.846942	F-statistics (pv)
LNEXPT	3.005359	0.0390	2.103651	0.000000
EXCH	-0.011736	0.6402	-1.295885	

From the table 4.10, it is observed that credit to private sector (CPS), population (POP) and log of export have a positive coefficients, while their respective probability values of t-statistics are not less than 5% level of significance except the log of export(0.1770,0.3999 and 0.0390) .This implies that the study shows that there is a positive but non-significant relationship between trade facilitation and economic growth for the sampled countries in the West African Monetary Zone.

CONCLUSION AND POLICY RECOMMENDATIONS

Exchange rate is a determining factor for inflation in simple economic theory, it influences inflation positively. It is worthy to sustain exchange rate stability as a prerequisite for stable domestic prices. Diversification of the economy from import to the export-based economy is fundamental for economic growth and hence development. This can be achieved through efficient and effective regulation of foreign exchange and political stability, which are very volatile macroeconomic variables.

The major benefits of economic integration are the reduction in transaction costs, economies of the international reserve, the elimination of exchange rate risk and the region-wide price harmonization. On the other hand, the costs of economic integration are related to the loss of sovereignty over monetary and exchange rate policy, especially in the case of asymmetry

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shocks that make the same monetary policy inappropriate for all member countries of an economic union. Indeed, in economic integration, member countries lose unilateral control over monetary policy instruments and exchange rate policy which may be crucial in dealing with country-specific macroeconomic shocks.

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