TRADE, FINANCIAL LIBERALISATION AND CURRENT ACCOUNT BALANCE IN NIGERIA

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Abstract: *This paper examines the individual and interactive impacts of trade and financial liberalization on Nigeria's current account balance between 1986 and 2019. An autoregressive distributed lag technique is used to investigate the short- and long-run effects of the de facto measure of trade openness and the de jure measure of financial openness by Chinn-Ito on the current account. The finding suggests that financial liberalization, in particular, has an insignificant negative effect on the current account, whereas trade has a non-significant positive impact in the long-run. The interaction of the variables in the long-run produces significant positive influence on the account. The short-run effects show a positive impact of financial liberalization, whereas the interplay of the variables has a negative impact on the current account. The study concludes that the interaction of trade and financial liberalization is critical in improving the current account balance in Nigeria.*

Keywords: Trade openness; Financial liberalisation; Current account; Nigeria, ARDL.

JEL classification: F32, F36, F62.

1. Introduction

Liberalisation of trade and financial sectors were economic strategies to stimulate economic growth and development, particularly in developing countries in the 1970s and 80s. Many countries that liberalised their economies witnessed impressive growth in trade in goods and services and improvement in the quality of financial system in terms of fund mobilization, increased savings and investment. However, rising global imbalances, particularly in developed countries such as the United States and the United Kingdom, as well as developing and emerging economies such as Asia, recently have heightened the researchers' interest on the impact of global interconnectedness through trade and financial flows on the current account balance. This is because of the importance of the current account among the macroeconomic factors. The current account of any country indicates its net trade in goods and services, and net financial flows (income and transfer from abroad). It is a key indicator of country's health and performance, and an imbalance in the account could pose a threat to the economy, resulting in a loss of foreign investors' confidence and participation. Besides, current account reveals the country's viability and socioeconomic position (Knight & Scacciavillani, 1998), a shift in the account signifies a negative spill-overs through trade and financial channels (Adeleke, Ohemeng & Ofori-Boateng, 2017). Besides, a persistent current account deficits or huge surplus, shows that the country's imports outnumber its exports and vice versa, as well indicate a high debt profile. Therefore, current account is crucial in assessing the country's overall health because it reveals the country's productivity from the available resources. In 1986, Nigeria government liberalised its economy to enhance economic growth and stability during an economic downturn with high

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current account deficits and macroeconomic instability. Current account over the years has fluctuated around deficit and surplus, grew from a deficit of $0.07b in 1987 to +$4.99b in 1990, declined to $2.5b in 1995 and rose to +$7.43bn in 2000 until 2014, and declined to a negative of $15.44b in 2015 and $14.63b in 2019. However, it is not clear the impact of trade and financial openness on Nigeria's current account balance as the country continued to open its economy for more trade and financial flows through several trade reforms over the years. Therefore, this paper aims to examine the impact of trade and financial liberalisation on the current account balance.

Several studies have found that financial liberalisation causes and exacerbates current account imbalances (Herrmann and Winkler, 2008; Christiansen, Prati, Ricci, and Tressel, 2009; Moral-Benito and Roehn, 2016; Gursoy and Yilanci, 2013; Borio and Disyatat, 2011; Jaumotte and Sodsriboon, 2010; Ya-Qiong and Rui, 2013; Gursoy, 2013; Brissimis, Hondroyiannis, Papazoglou, Tsaveas and Vasardani, 2010; Hjortsoe, Weale and Wieladek, 2018; Zoričić, Cota and Erjavec, 2020). Financial liberalisation might relax liquidity constraints to increase saving (Mendoza, Quadrini and Jose-Victor (2009), fuel credit-driven consumption and investment growth, and producing current account imbalance (Borio and Disyatat, 2011). Others suggested that efficient financial system reduces the current account deficit through increase in domestic savings and investment (Chinn and Prasad, 2003; Herrmann and Jochem, 2005; Chinn and Ito, 2007). Conversely, current account deficit is related to country's degree of trade openness (Jiandong, Yi and Li, 2010; Romelli, Terra and Vasconcelos, 2018; Caivano and Coniglio, 2016; Moussa, 2016; Ibhagui 2018). By raising domestic savings and investments, trade openness is expected to minimise current account deficit and facilitate cross-border trade (Selçúk, Karaçor and Yardimci, 2015; Das, 2016). Furthermore, increased trade openness with a well-developed financial system and macroeconomic stability can increase capital inflows by stimulating domestic savings and investment and improving current account imbalances by depreciating the real exchange rate (World Trade Report, 2004). It is obvious from the literature that trade and financial liberalisation explain changes in the current account, however, there is no clear evidence of the interactive effects of the openness variables on current account balance. Hence, this study.

While the impact of trade and financial liberalisation on growth and macroeconomic variables has been extensively researched in Nigeria (Akpan, 2004; Kaita, 2015; Saifullahi and Tanimu, 2015; Danlami *et al.*, 2018; Aigheiyisi and Isikhuemen, 2018; Apanisile and Okunlola, 2020; Aremo and Arambada, 2021; among others), little attention has been paid to unravel the impact of trade and financial liberalisation on current account balance. Several studies looked at macroeconomic and institutional factors, monetary policy, fiscal policy shock, and adjustment policy as determinants of current account (Longe, Muhammad, Ajayi and Omitogun, 2019; Danmola and Olateju, 2013; Uneze and Ekor, 2012; Oshota, 2015; Udah, 2010; Chete, 2001; Kudaisi and Olomola, 2019; Sule and Shuaibu, 2020; among others). This is surprising because trade and financial openness might have a major influence on Nigeria's current account balance especially as the country increases its trade horizon and financial sector competition. In contrast to the previous studies that only looked at growth and selected macroeconomic factors, the objective of this paper is to investigate the individual and interactive effects of trade and financial liberalisation on current account. The rest of the paper is organised as follows; section two reviews empirical literature, section three specifies the model, presents the estimation methods, data source and measurement. Section four discusses the empirical findings, and section five concludes and makes policy recommendation based on the findings.

2. Literature Review

This section is divided into three. The first part presents empirical literature on the relationship between financial liberalisation and current account. Follows by the impact of trade on the current account balance. Subsection three is a review on the impact of trade and financial liberalisation on the current account balance.

2.1. Financial Liberalisation-Current Account Nexus

The influence of financial liberalisation on global current account balance has long been a concern for researchers and policymakers with conflicting results. Some studies linked current account balances to domestic financial liberalisation. For instance, Zorii**c** *et al.* (2020) reported a long-run negative impact of financial openness on current account deficits in 11 European Union countries between 1999 and 2016. In a study of emerging Europe and Asia between 1994 and 2006, Herrman and Winkler (2008) linked the current account deficits in the region to financial market reforms and higher level of integration. Yang (2010) investigated the role of the macroeconomic environment and financial liberalisation (proxied by real effective exchange rate) on current account in eight emerging Asian countries during 1980–2009, the result found a deteriorating current accounts due to financial liberalisation. Gursoy (2010) found an exacerbated current account deficit from 1989–2008 in Turkey. Similarly, Gursoy and Yilanci (2013) confirmed a current account imbalance due to financial liberalisation in 11 provinces in Central, Eastern, and South-Eastern European (CESEE) countries during 2002–2010. Chinn and Ito (2007) reported a negative impact of financial openness on current account in developed countries, but positive impact in developing nations between 1971 and 2004. Ya-Qiong and Rui (2013) found a deteriorated current accounts in a study of 59 countries from 1986–2010Lanau and Wieladek (2012) found a worsened current account deficit in countries with partial financial regulation than countries that fully regularized their financial system in the case of 84 developed and developing countries study from 1973 to 2005. Saadaoui (2015) in the case of 18 developed and 21 emerging countries from 1980–2007, established that: (i) financial openness deteriorates medium-term current accounts in developed countries due to a decline in domestic investment owing to increasing overseas investment opportunities; (ii) financial openness improves current account in developing nations due to an increase in domestic investments. Smith (2010) studied the effects of financial and good markets integration on current accounts in 18 OECD countries between 1981 and 2006, the result showed a worsening current account in Canada within the short period preceding integration, and a long-run adjustment to the reform in other OECD countries.

Some studies confirmed a positive impact of financial liberalisation on current account. Christiansen *et al.* (2009) established that an improvement in current account in low-income countries is related to financial liberalisation. Ener and Arica (2012) found a positive impact of financial liberalisation (measured by real interest rate) on current account deficits for 21 OECD high-income countries between 1980 and 2009. Brissimis *et al.,* (2010) found a strong positive impact of financial liberalisation on Greece's current account imbalance from 1960–2007. Moral-Benito and Roehn (2016) in a study of 31 Asian countries during 1980–2010, observed that the impact of financial openness on current account depends on the financial liberalisation measures. According to the authors, removal of bank entry restrictions worsened the account, whereas bank privatisation and securities market deregulation improve it. Anoruo and Elike (2008) revealed that financial liberalisation boosts current account in India, Korea, and the Philippines, but deteriorates it in Thailand. Jaumotte and Sodsriwiboon (2010) found that financial liberalisation reduces current account deficits in a 49 advanced and emerging economies study. Johansson and Wang (2012) in a study of 66 East Asian and developing countries during 1981–2005, established a worsened current account deficit due to repressive financial system, thus suggesting liberalisation to improve the account. In a sample of 27 oil-exporting countries from 1980–2010, Allegret, Couharde,

Coulibaly, and Mignon (2014) found a non-linear relationship between oil price and current account, depending largely on a country's level of financial market development. On the contrary, Wang (2020) established an improved current account surplus following financial regulation for a panel of 66 developed, developing and emerging countries. Recently, Ariç, Sek and Rocha (2021) investigated the individual and combined effects of institutional quality and financial development and found that financial development improved Asia's current account, while the interactive effect is negative.

2.2. Current Account and Trade Openness

A study by Joy, Lisack, Lloyd, Reinhardt, Sajedi, and Whitaker (2018) found a significant positive impact of trade on global imbalances. Selçuk, Karaçor and Yardimci (2017) found an ambiguous impact of trade liberalisation on Turkey's current account. Moussa (2016) found a worsening current account due to trade openness in sub-Saharan African countries between 1980 and 2013. Caivano and Coniglio (2016) found that trade openness deteriorates current account in countries with strong trade restrictions and improves the account in countries that fully open to trade in a study of 15 EU countries from 1974–2011. Parikh and Stirbu (2004) discovered that trade openness exacerbates current account imbalances in a study of 42 developing countries from 1970–1999. Similarly, Parikh (2002) found a positive relationship between trade liberalisation and current account deficits in 64 developing countries. Jaffari (2006) found that trade openness had a negative impact on current account in Pakistan between 1976 and 2006. In a study of small island nations, Santos-Paulino (2010) discovered a short-lived current account deficit due to terms of trade shock and long run improvement with J-curve effects. In another study, Santos-Paulino and Thirlwall (2004) found a worsening balance of payments due to increased imports relative to exports in 22 developing countries from Africa, Latin America, East Asia, and South Asia from 1972–1997. Chin and Prasad (2003) confirmed negative relationship between current account balance, terms of terms shock and trade openness in developing during 1971–1995 in a study of 18 developed and 71 developing countries. In Nigeria, Oke and Adigun (2020) established a significant positive short- and long-term impact of trade openness and current balance from 1980–2017.

2.3. Trade, Financial Liberalization and Current Account

Lo Prete (2012) found a significant positive effect of trade openness on current account, whereas financial development deteriorates the account in a study of 19 OECD countries between 1980 and 2007. Altayligil and Cetrez (2020) revealed that trade openness and financial market development exacerbates current account deficits in a study of 97 developing and developed countries between 1986 and 2013. Hjortsoe *et al.* (2018) in a study of 19 OECD countries from 1976 to 2006, using a dynamic stochastic general equilibrium (DSGE), noted that financial liberalisation plays a significant impact between current account deficits and expansionary monetary policy. Gangal, Agarwal, and Banger (2017) found a significant positive short- and long-term effect of financial openness on current account but worsening current account following trade openness in India between 2000 and 2006. From the reviewed above, studies are silent on the complementarity or substitutability of trade and financial openness on the current account. It is also observed that there is more literature on the effects of financial liberalisation in developing countries with exception of Nigeria than trade. It is thus important to investigate the impact of financial liberalisation and trade on the account.

3. Methodology and Data
3.1. Theoretical Framework
Different approaches have been used to explain the drivers of current account balance of a nation. Elasticity approach, pioneered by Alfred Marshall (1923) and Abba Lerner (1944), extended by Joan Robinson (1937) and Fritz Machlup (1955), explains the main driver of current account balance as the sum of trade balance and net international investment income. The approach analyses what happens to current account when there is an internal and external policy. Specifically, it analyses the effect of domestic currency devaluation on the current account. Absorption approach of Alexander (1952) viewed current account imbalance as the difference between domestic output and spending (Absorption). The intertemporal approach of Obstfeld and Rogoff (1995) extends the elasticity and absorption approaches, explains that current account implicitly relies on a well-functioning financial sector (i.e. where different types of risks and liquidity issues are properly discounted in the system) and a government with sustainable fiscal policies (i.e. consume within its intertemporal budgetary possibilities), in which case, excessive borrowing by households (such as mortgages) and governments can create current account imbalances that are not sustainable. On the other hand, trade openness is expected to facilitate cross-border goods and services through the removal of trade barriers, increase exports and reduce current account deficits (ceteris paribus) (Selçúk, Karaçor and Yardimci, 2015; Das, 2016). However, theories that combine trade and financial liberalization to explain current account behavior are scarce.

3.2. Model Specification
Following Lo Prete (2012), and Gangal *et al.,* (2017), equation (1) is specified to investigate the individual and interactive impact of trade and financial liberalization on the current account.

$$CA_t = \alpha_0 + \alpha_1 fli_t + \alpha_2 trade_t + \alpha_3 reer_t + \alpha_4 \inf r_t + \alpha_5 tot + \alpha_6 rgdpg_t$$
$$+ \alpha_7 (fli_t * trade_t) + u_t \qquad (1)$$

Where α_0 = intercept, α_i (i =1,2, . . . ,7) and u_t= residual error term. CA= current account measured as % of GDP. *FL*= financial liberalisation index. *infr* = inflation rate; *trade* = economy openness measured as the difference between export and import divided by real GDP. *reer* = real effective exchange rate measured in percentage. It is included in the model to capture the country's competitiveness with the rest of the world. The interactive effect of trade and financial liberalisation is specified as *FL*trade. tot* = term of trade shock. Equation (1) is the linear equation of current account with other explanatory variables. Trade and financial liberalisation are expected to improve or deteriorate current account balance in Nigeria being an opened economy. Also, the interaction is expected to be positively correlated with current account surplus.

3.3. Methods of Analysis
The study employs the ARDL developed by Pesaran and Shin (1995) and Pesaran, Shin and Smith (2001) to investigate the existence of long-term relationship among the variables using F-test and the short-run elasticity of the variables using unrestricted error correction representation model (ECT$_{-1}$). From equation (1), the long-run equation is specified explicitly in equation (2):

$$CA_t = \beta_1 fli_{t-1} + \beta_2 trade_{t-1} + \beta_3 reer_{t-1} + \beta_4 \inf r_{t-1} + \beta_5 rgdpg_{t-1} + \beta_6 tot_{t-1}$$
$$+ \beta_7 (fli_{t-1} * trade_{t-1}) \tag{2}$$

The short-run dynamics relationship of the variables is written in equation (3):

$$\Delta CA_t = \beta_0 + \sum_{t=1}^{q} \beta_1 \Delta CA_{t-1} + \sum_{t=0}^{q} \beta_2 \Delta fli_{t-1} + \sum_{t=0}^{q} \beta_3 \Delta trade_{t-1} \sum_{t=0}^{q} \beta_4 \Delta reer_{t-1} + \sum_{t=0}^{q} \beta_5 \Delta \inf r_{t-1}$$
$$+ \sum_{t=0}^{q} \beta_6 \Delta rgdpg_{t-1} + \sum_{t=0}^{q} \beta_7 \Delta tot_{t-1} + \sum_{t=0}^{q} \beta_8 \Delta (fli_{t-1} * trade_{t-1}) + ECT_{t-1} \tag{3}$$

In equation (3), Δ is the first difference operator, q is the optimal lag length, $\beta_1 - \beta_8$ represent the short-run relationship of the variables' coefficient. $\sum$ represents summation. The error correction term of the equation is specified in equation (4)

$$ECT_{t-1} = \Delta CA - \begin{pmatrix} \Delta \beta_1 fli - \Delta \beta_2 trade - \Delta \beta_3 reer - \Delta \beta_4 \inf - \Delta \beta_5 rgdpg - \Delta \beta_6 tot \\ - \Delta \beta_7 (fli * trade) \end{pmatrix} \tag{4}$$

The cointegration in the ARDL bounds test approach is examined under the following hypothesis as specified in equation (5). If the null hypothesis is rejected, there is cointegration. The f-statistics is compared with the critical values by Pesaran *et al.* (2001)

$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = 0$
$H_1: \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq 0$ (5)

3.4. Data Sources and Measurement

Annual data from 1986 to 2019 is used, and it is in its original form. Except for financial openness which is sourced from the Chinn-Ito financial openness index, all data are drawn from World Development Indicators (2019) database. There are several measures of both trade and financial liberalisation in literature, which are grouped into *de jure* and *de facto* measurements (Gräbner, Heimberger, Kapeller and Springholz, 2021). *De facto* trade openness measures include ratio of total trade volume relative to country's GDP, exports/GDP or imports/GDP, while the *de jure* measures include tariffs and non-tariffs trade restrictions. This study employs *de facto* measures of trade openness due to data availability. D*e jure* indicators often used to measure financial liberalisation in literature include interest rate, money supply, foreign direct investment (FDI) inwards/outwards, and the savings-investment ratio, real exchange rate, among others, whereas *de facto* measures includes FDI restrictions, and capital openness/restrictions. While some authors used dummy and principal component to compute the rate of country's financial openness (Fowowe, 2008), others employed Abiad, Detragiache and Tressel (2010) measures of financial openness. This study uses 2019 update *de jure* measures of financial openness by Chinn-Ito (2008). Table 1 shows the data measurement and sources.

Table 1: Data Source and measurement

Variables	Description/ Measurement	Source
CA	Transactions Balance in trade of goods and services, factor income and current transfers in one year. It is expressed as % of GDP	World Development Indicators (WDI, 2019)
FLI	Financial liberalisation index. It measures the degree of country's capital account openness	Chinn-Ito index (2021)
REER	Real effective exchange rate. It is the weighted average of the currencies of the trading partners adjusted by the weights of trading partners.	WDI, 2019
TOT	It is the ratio of exports to imports prices of goods/services of a nation.	WDI, 2019
TRADE	Export plus import divided by GDP.	WDI, 2019
RGDPG	Measures the stage of economic development before and after the reform. Expressed in percent.	WDI, 2019
INFR	Measures the overall rising price level. The consumer price index is used as a proxy for macroeconomic environment and stability.	WDI, 2019

Source: Author's compilation (2021)

4. Results and Discussion

4.1. Descriptive Statistics

The result in Table 2 summaries the descriptive statistics of the variables. The Table shows that all the variables are positively skewed, except financial liberalisation and trade. The assumption of normality of the variables is also confirmed by the closeness of the mean and median values. The kurtosis shows that the *GDP growth rate*, *financial liberalisation index*, *trade*, and *terms of trade* are all normally distributed with the values ranging between 1 and 3, while other data sets appear to be leptokurtic.

Table 2: Summary of Descriptive Statistics

	CA	FLI	Trade	REER	INFR	RGDPG	TOT
Mean	3.2515	-1.2647	35.233	110.03	17.445	4.3795	120.372
Median	2.4621	-1.0000	35.258	96.106	10.751	4.430	100.841
Maximum	20.739	-1.0000	53.277	272.92	75.401	15.329	224.643
Minimum	-6.2895	-2.0000	9.1358	49.732	0.686	-2.035	43.877
Std. Dev.	5.6712	0.4478	10.314	55.468	15.391	3.879	57.634
Skewness	1.1459	-1.0666	-0.4312	1.806	1.946	0.493	0.494
Kurtosis	4.4073	2.1377	2.9248	5.450	7.305	3.381	1.896
Jarque-Bera	10.247	7.5005	1.0620	27.007	47.725	1.585	3.109
Observations	34	34	34	34	34	34	34

Note: Std.Dev means standard deviation.
Source: Author's analysis (2021)

4.2. Stationarity Test

The stationarity test of the variables was conducted using Augmented Dickey-Fuller (ADF) and Philip Perron (PP) unit root tests. The non-stationarity of the variables implies that the mean and variance of the variables are not constant over the period, thus giving a spurious result. To control for this, the stationarity test was carried out using two alternative specifications—at level and first difference both at intercept to achieve consistency in the

test results. The unit root test results are mixed as shown in Table 3. Current account balance, financial liberalisation index, and terms of trade shocks are stationary after first differencing, which implies they are integrated of I(1), whereas, real effective exchange rate (reer), trade openness, inflation rate and real GDP growth rate are stationary at level i.e. I(0).

Table 3: Unit Root Test Results (Intercept only)

Variables	ADF Test			PP Test		
	@ Level	@ 1st Diff.	Order	@ Level	@ 1st Diff.	Order
CA	-2.0176 (0.2781)	-5.0941 (0.0002)	I(1)	-2.3082 (0.1754)	-6.5240 (0.0000)	I(1)
FLI	-1.4213 (0.5599)	-4.9925 (0.0003)	I(1)	-1.4913 (0.5254)	-4.9940 (0.0003)	I(1)
TRADE	-3.6000 (0.0112)	-7.0814 (0.0000)	1(0)	-3.5847 (0.0116)	-7.9148 (0.0000)	I(1)
REER	-4.0401 (0.0037)	-6.8489 (0.0000)	I(0)	-4.1537 (0.0027)	-7.1897 (0.0000)	I(0)
INFR	-4.3544 (0.0022)	-3.5000 (0.0170)	I(0)	-2.8080 (0.0680)	-6.8693 (0.0000)	I(0)
TOT	-1.3682 (0.5856)	-5.4699 (0.0001)	I(1)	-1.3115 (0.6124)	-5.5261 (0.0001)	I(1)
RGDPG	-3.8764 (0.0056)	-3.7538 (0.0069)	I(0)	-3.7945 (0.0069)	-13.9661 (0.0001)	I(0)

Note: ADF Test 5% @ level test (= -2.954) and 1st differences (= -2.957) respectively. PP Test, 5% @ level (-2.954) and 1st difference (= -2.957). Lag length selection criterion: Akaike Info Criterion, Maxlag = 8. Parenthesis () indicates probability
Source: Author's analysis (2021)

4.3. ARDL Bounds Test

The Bounds test result reported in Table 4 shows the F-statistic value of 9.57. This provides a strong support for the rejection of the null hypothesis of no co-integration, since the value is greater than the upper bound I(1) values of all levels of significance. According to Pesaran *et al.*, (2001), if the value of the F-statistic is greater than the upper bound, I(1) of the critical values of Table CI(i) case I (no intercept and no trend) in Pesaran *et al.*, (2001) given the K-value of 7, there is an existence of long-run relationship among the variables. Thus, there is a long-run cointegration relationship among current account and the explanatory variables. Once this is ascertained, short-run and long-run relationship of the variables can be investigated.

Table 4: Bounds Test Result

F-Bounds Test		H$_0$: No long-run relationship		
		Critical Value Bounds		
Test Statistic		Significance	I(0)	I(1)
F-statistic	9.572921	10%	1.7	2.83
K	7	5%	1.97	3.18
		2.5%	2.22	3.49
		1%	2.54	3.91

Source: Author's analysis (2021)

4. 4. Diagnostic Test

The diagnostic test of the model is presented in Table 7. The serial correlation test indicates there is no problem of autocorrelation since the *p-value* is greater than 0.05 significance level, likewise the result of the BPG heteroscedasticity test shows there is no problem of

heteroscedasticity. Ramsey test shows that the estimated model is correct. Also, the Jargue-Bera normality test indicates normal estimated model.

Table 5: Result of Diagnostic Test

	Obs*R-squa	Prob. Chi-Squared(2)
Breusch-Godfrey serial correlation LM test	5.969845	0.1131
Heteroscedasticity(BPG) test	25.99446	0.2067
Wald Test(F-stat)	19.49645	0.0001
Ramsey Test(F-statistic)	0.007332	0.9335
Normality Test (Jargue-Bera)	1.317557	0.517483

Source: Author's analysis (2021)

4.5. Long-run Relationship of the Variables

The result of the long-run relationship of the variables presented in Table 6 shows a negative coefficient of *de jure* measure of financial liberalisation. This suggests that the more a country's financial system is opened to the rest of the world, the more the capital inflows it receives, savings and investments, and hence the improvement in the current account balance. It can be concluded that financial liberalisation has had little impact on Nigeria's current account deficits. This finding corroborates those of Christiansen *et al.* (2009), Gangal *et al.* (2017) and Zoričić *et al.,* (2020) who argued that financial liberalisation worsens current account imbalance through an increase in domestic savings and investment. Also, the trade is positive but non-significant; implying that trade openness alone may not be sufficient to determine the balance in current account. The result contradicts Oke and Adigun (2020) who found significant positive impact of trade openness on current account. The estimated coefficient of the interactive term of trade and financial liberalisation on current account is positive and significant, suggesting that trade and financial openness are complementary rather than substitute to either improve or deteriorate the account. This finding supports Altayligil and Çetrez (2020) who found that an increase in trade and financial market development could increase current account deficits. Besides, the result suggests that an increase in the interaction term of trade openness and financial liberalisation could boost current account balance or reduce the imbalance in the account in the long run. The coefficient of terms of trade has a negative sign and statistically significant. In other words, terms of trade can also influence current account balance negatively whenever there is a shock in trade. This result corroborates the findings of Chin and Prasad (2003) and contradicts Santos-Paulino (2010). The real exchange rate and the growth rate of real GDP are both positive and significant, indicating that a rise in real effective exchange rate and the state of the economy (measured as RGDPG) could lead to a deteriorating current account in the long-run. Thus corroborates Marshall-Lerner condition which states that currency devaluation improves current account deficits, and the findings of Altayligil and Çetrez (2020). Inflation rate is negative, suggesting that higher inflation rate could decrease deficit in current account. This corroborates the findings of Altayligil and Çetrez (2020).

Table 6: Long-run Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FLI	-20.748713	14.289435	-1.452032	0.1744
*FLI*TRADE*	0.788129	0.378397	2.082811	0.0614
TRADE	0.520419	0.318439	1.634283	0.1305
REER	0.143825	0.047311	3.039986	0.0112
TOT	-0.185363	0.062791	-2.952077	0.0132
RGDPG	1.588699	0.507567	3.130025	0.0096
INFL	-0.379640	0.282590	-1.343434	0.2062

Source: Author's analysis (2021)

4.6. Short-run Dynamic Relationship of the Variables

The short-run relationship of the variables is presented in Table 7. The error correction term (ECT_{-1}) is correctly signed as its coefficient is negative (-0.37) and statistically significant, implying approximately 37% speed of adjustment from disequilibrium in the current account. This indicates existence of long-run relationship among the variables. The estimated coefficient of trade is negative and non-significant, suggesting that trade alone cannot drive deficits in the account. This result buttresses the findings of Chin and Prasad (2003). Financial liberalisation index shows significant positive role in determining the behaviour of the account in the short-run. This result supports Moral-Benito and Roehn (2016) submission. The interaction effects of trade and financial openness is negative but significant. Terms of trade and exchange rate are positive and significant, confirming that terms of trade shock and exchange rate instability could deteriorate current account. The state of the economy proxied by RGDPG has a negative impact on current account balance.

Table 7: Short-run Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FLI)	16.603763	4.378574	3.792048	0.0030
*D(FLI*TRADE)*	-0.441222	0.093834	-4.702141	0.0006
D(TRADE)	-0.509417	0.113193	-4.500436	0.0009
D(REER)	0.036385	0.018784	1.937077	0.0788
D(TOT)	0.060239	0.019294	3.122184	0.0097
D(RGDPG)	-0.190242	0.132423	-1.436625	0.1787
D(INFL)	-0.107281	0.060929	-1.760755	0.1060
CointEq(-1)	-0.370673	0.086991	-4.261029	0.0013

Source: Author's analysis (2021)

4.7. Stability Test

In addition to the diagnostic test, the stability test of the model was also confirmed using cumulative sum of recursive residual (CUSUM) and cumulative sum of squares recursive residual (CUSUM of Squares). The figures are reported in Figures 2 and 3 respectively, which show that the plots are within the critical bounds at 5% level of significance, thus accepting the null hypothesis of no long-run relationship.
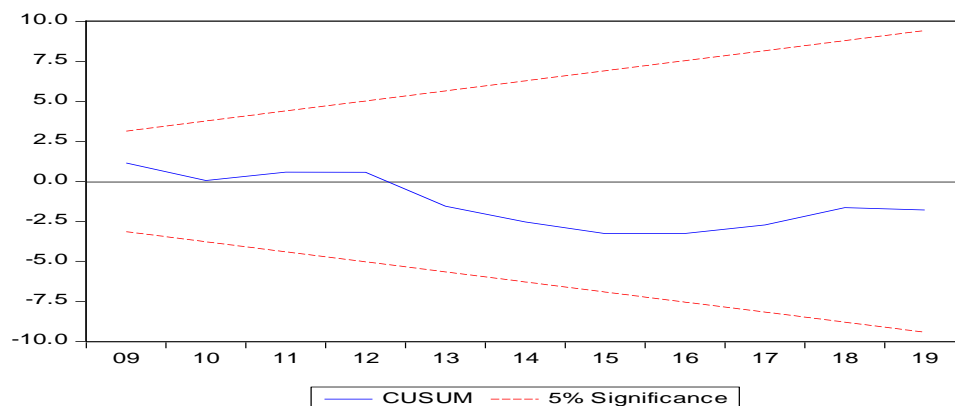

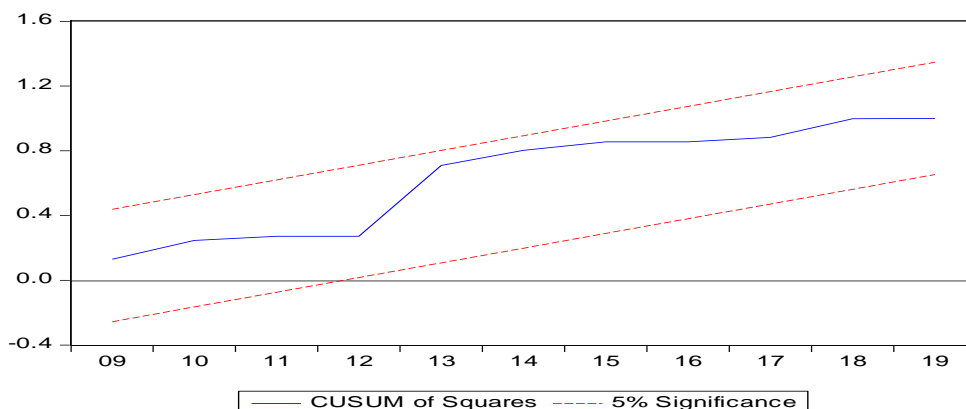**Figure 1:** CUSUM
Source: Author's processing (2021)

Figure 2: CUSUM of Square
Source: Author's processing (2021)

5. Conclusion and Recommendations

This study investigates the influence of trade and financial liberalisation on current account balance using the Chinn-Ito financial openness index as a measure of financial liberalisation and *de facto* measure of trade openness. The study employs autoregressive distributed lag (ARDL) technique to examine the short- and the long-run impact of trade and financial liberalisation on current account balance between 1986 and 2019. The findings suggest that financial liberalisation has a significant positive impact on the current account in the short-run and negative impact in the long-run. In the short-run, a significant negative relation exists between trade and current account but non-significant positive relationship in the long-run. In terms of the interaction of trade and financial openness, there is no evidence it worsens current account balance in the short-run, whereas, there exists a positive relation in the long-run. Also, the result shows a negative impact of real exchange rate and GDP growth rate on current account balance in the long run.

The empirical results have important policy implications on how to harness financial liberalisation policy and trade to improve current account. Financial openness and trade need to be strengthened and pursued simultaneously to significantly reducing the country's current account deficits through increased in exports, reduction in imports by localizing most of the importable goods in the country. Strong financial and trade sectors reforms are required which will significantly enhance savings and investments, capital inflows as well as induce strong competition internationally and domestically. Besides, a successful financial liberalisation will be a crucial component of the country's strategy to mobilise domestic funds, promote trade, and therefore improve the current account. Based on this, flexible interest rates are required to encourage and promote both domestic and foreign investors, as high interest rates discourage investors. A high demand for collateral security sends a negative signal to prospective investors, have negative effects on investment and hence, current account balance. The government need to create an enabling environment for investors by maintaining stable exchange rates, as instability in the rate could stymie investment, saving and the current account balance. Finally, to improve the country's current account the country's macroeconomic framework must be strengthened to accommodate domestic investments, strengthen exports, and achieve favourable term of trade.

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