DBN Development Bank of Nigeria
...Financing Sustainable Growth

DBN JOURNAL OF ECONOMICS & SUSTAINABLE GROWTH

VOLUME 3, ISSUE 1, 2020

IMPACT OF FINANCIAL DEVELOPMENT ON MERCHANDISE TRADE IN NIGERIA: A DISAGGREGATE ANALYSIS

Isiaka Akande Raifu
Department of Economics,
Faculty of Economics,
University of Ibadan,
Oyo State, Nigeria
heritagetiamiyu@gmail.com
+234 806 982 9396

Oludele Emmanuel Folarin
Department of Economics,
Faculty of Economics,
University of Ibadan,
Oyo State, Nigeria
oludelefolarin@gmail.com
+234 703 266 8766

www.devbankng.com

@DevBankNG

Abstract

This paper conducts an empirical investigation of the relationship between financial development and merchandise trade in Nigeria. Our study focused on the effects of financial development on the components of merchandise trade: exports and imports. While theory predicts that well-developed financial systems help firms in overcoming liquidity challenges, thus, increasing their output, which, in turn, leads to an increase in trade, the empirical evidence suggests otherwise as mixed findings pervade the literature. Using Autoregressive Distributed Lag (ARDL) Model, our findings show that financial development has positive and significant effect on export both in the long-run and in the short-run. While the effect of financial development on import is positive but insignificant in the short-run, in the long-run, its effect on import is negative and significant. Our findings thus support the need for well-developed financial systems beyond its positive impact on economic growth.

Keywords: Financial development, Liquidity constraints, International Trade, Comparative Advantage, ARDL, Nigeria

JEL Classification: F14, G20, O16, O55

1.0 Introduction

Since the 2007-2009 financial crises and its attendant effects on the economies around the world, there has been a renewed attention towards the importance of financial development in international transactions (Berman, 2009; Leibovici, 2013). During the great financial crisis, available statistics on trade flows show that both imports and exports fell, both in developed and developing countries. In specific terms, the volume of the world trade fell by 12% in 2009 with diverse degrees of severity across the different continents of the world. In North America, the volume of merchandise exports fell by 15%, Europe 15%, South America 8% and Asia 11%. The continent of Africa was not left out of the economic woes that befell the world during the crisis. Using Nigeria as a reference point in the continent, given its large economy, the volume of imports and exports in Nigeria declined by 2.0% and 17.1% in 2009 respectively. During the same period, loan advances to exporters decreased by 39.0%. Furthermore, financial market indicators such as stock market capitalisation and all share index dwindled by 26.5% and 33.8% in 2009 respectively (Central Bank of Nigeria, 2014)[1]

The importance of trade, either internal or external, cannot be over emphasised. This is because international trade serves as an engine of economic growth, a tool for poverty alleviation and generally a source of welfare improvement. These assertions have been proven both theoretically and empirically. For instance, Ricardo's theory of comparative advantage posits that a country engaging in international trade should derive gains that come from specialisation and other factors that engender economies of scale. In other words, by engaging in international trade, citizens of a particular country have access to consumption of varieties of commodities which their country cannot produce at cheaper prices due to lack of comparative advantage.

[1]Computed by author from Central Bank of Nigeria Statistical Bulletin, 2014

In the literature, channels through which international trade affects economic growth have been well documented (Feyrer, 2009). Feyrer (2009) revealed that international trade promotes economic growth through reduction in tariff on capital goods and imported intermediate goods or inputs, which in turn reduces the costs of production and the prices of goods being produced as well as brings about an increase in productivity and thus, spurs economic growth.

The next question that comes to mind is 'how does international trade improve welfare as well as translate into poverty reduction?' This question has also been addressed by some authors such as Dollar and Kraay (2004), Goldberg and Pavcnik, (2005), Ravalion (2007), Hoekman and Olarreaga (2007). Dollar and Kraay (2004) argued that trade through its positive effects on growth is good for the poor and then pointed out that countries with increased participation in international trade experience greater decline in poverty. Similarly, Goldberg and Pavcnik noted that trade-induced-growth will help in reducing poverty level when an increase in trade is associated with an increase in the earnings of less-educated workers, industrial wage premiums and employment.[2]Hoekman and Olarreaga (2007) observed that trade openness could result in economic growth and thus reduce poverty. According to the Hoekman and Olarreaga (2007), liberalisation brings about income change which can lead to gains. Also, Ravallion (2007) noted that under certain conditions, openness of trade might serve as a tool for poverty reduction.

However, for trade to enhance growth and perform its poverty reduction and welfare enhancing roles, the issue of financing is important. This is because international trade involves higher cost of operation compared to domestic trade. As previously noted, disruption in the financial sector can hamper international transactions. On the other hand, a well-functioning financial system confers on a country a comparative advantage to trade (Kletzer and

[2]Also see the work of Topalova (2007, 2010).

Bardhan, 1987; Manova, 2013). Thus, the existence of trade finance plays an indispensable role in facilitating international transaction. Of all the various providers of financial intermediary functions, the banking sector stands out in facilitating international transactions. Banking sector provides credit facilities to both exporters and importers. Most of the times, exporters and importers face a bounding financial constraint in terms of raising funds to finance the production as well as the movement of their goods and services across borders.

To put it succinctly, exporters need fund to manufacture their products before selling them and receiving payments while importers require credit to buy raw materials and capital goods from other countries. Furthermore, banks provide advisory role in terms of offering information to buyers and sellers (importers and exporters), settlement of international transactions, management of both currency and market risks, provision of funds in forms of working capital loans and issuance, acceptance and confirming of the letters of credit (Beck, 2002; Manova, 2013). In summary, banks provide liquidity and guarantee payments for international transaction and thus encourage smooth international trade.

The effectiveness and efficiency with which the banking sector performs its roles, however, depends on the level of financial development in a particular country. In most of the developing countries where the level of financial development is very low, it is often hard for banking sector to perform its functions effectively. Conversely, in advanced economies like the United States of America and the United Kingdom, it is quite easy for the banking sector to perform its function of facilitating international transactions effectively and efficiently. In many of the developing countries, financing international transactions face many challenges. These challenges among others include lack of compliance with terms of trade, lack of proper documentations, the problem of asymmetric information and moral hazard, financial infrastructural gaps and, most times, lack of collaterals. These

challenges may be the rationale for low level of participation of developing countries in international trade.

Several attempts have been made to examine the role of financial development in facilitating a smooth international trade, particularly in advanced economies. Theoretical foundation in this regard was laid by Kletzer and Bardhan (1987). According to them, a country endowed with a relatively well-developed and well-functioning financial system will possess a comparative advantage in industries that rely on external finance. This theoretical proposition has been extended by Beck (2002). Empirical studies that seek to test the positive effect of financial development on international trade arrived at mixed findings. Besides, most of the studies focused extensively on the developed countries while some studies combine developing countries with developed countries in cross-country studies with some scanty country-specific studies. For instance, studies such as Beck (2002), Do and Levchenko (2004), Huang and Temple (2005), Baltagi et al. (2007) and Keindrebeogo (2012) combined both developed and developing countries in examining the role of financial development in international trade. On the other hand, there is considerable number of studies that mainly focus on developing countries (Pham, 2010; Babatunde and Fowowe, 2010; Menyah et al., 2014) while Bojanic 2011, Leibovici, 2013 tailored their works towards country specific studies. One major development from these studies is the inconclusive findings or divergence of opinions. For instance, Beck (2002), using the 30 years panel data of 65 countries, found that countries with well-developed or high level of financial development have higher share of manufacturing exports in Gross Domestic Product (GDP), and in total merchandise export including a higher trade balance in manufacturing goods.

Furthermore, Do and Levchenko (2004) found that trade openness is conditioned on faster financial development in wealthier countries and on slower financial development in poorest ones. However, Babatunde and Fowowe (2010) testing Beck's theoretical prediction using Sub-Saharan

African countries' data found no support for the prediction. Specifically, their findings revealed that in Sub-Saharan African countries, there is no link between financial development and international trade. Kim, Lin and Suen (2010) sought to understand the effect of trade openness on the level of financial development based on panel data of 88 countries comprising developed and developing countries; they found that trade openness is deleterious to financial development in the short run but exert positive effect on the financial development in the long run. Apart from the non-conclusive findings from these sundry empirical studies, lumping countries together in any empirical study neglects the characteristics of individual country which might be different from other countries and neglecting such might have a far-reaching effect on the empirical findings and policy implications. Thus, there is need for a case study analysis that seeks to improve our understanding of the effects of financial development on international trade.

In Nigeria, empirical studies devoted to link financial development to trade are limited. Most of these studies focused on the impact of financial development on the economic growth (Nnanna, 2004; Adeniyi et al., 2015; Iheanacho, 2016). Other studies have either examined the impact of trade components on financial development (Oluitan, 2012) or the relationship between economic growth, financial development and trade openness (Lawal et al., 2016). Thus, to the best of our knowledge, no study has examined the effect of financial development on the merchandise trade in Nigeria, particularly taking into consideration the components of merchandise trade. This study is, therefore, designed to fill the observed gap in the literature, which, in turn, uses Nigeria as a case study.

Therefore, this study specifically focuses on Nigeria. This enables us to access the level of financial development in the country and the performance of her trading engagement during the time under consideration. Apart from focusing on Nigeria, the examination of effect of financial development on the merchandise trade is not only limited to merchandise export alone but also extended to merchandise imports, both in the short run and in the long

run. This is quite different from most of the existing studies that examined the impact of financial development on exports alone without considering its impact on imports, especially studies on developing countries such as sub-Saharan African countries (Babatunde and Fowowe, 2010). To assess the short run and long run effects of financial development on merchandise exports and imports, autoregressive distributed lag econometric (ARDL) technique is employed. This technique has an advantage over error correction method because it can be applied irrespective of the order of integration of our variables of interest, that is, either any of the variables is in order of integration 0 or 1 but not in order of integration 2.

Using the Nigerian dataset that spans from 1981-2014, the results confirm the existence of both short-run and long run relationship between financial development and merchandise exports and imports in Nigeria. These results are quite contrary to the one obtained by Babatude and Fowowe (2010) which found no link between financial development and international trade. However, the results support other empirical studies such as Beck (2002) who found that financial development spurs merchandise trade.

The rest of the paper is organised as follows. Section two focuses on the stylised facts on the evolution of financial development and merchandise international trade in Nigeria. Section three discusses the data and methodology employed. Section four presents the discussion of the findings. Section five summarises the study's findings and proffers some policy recommendations.

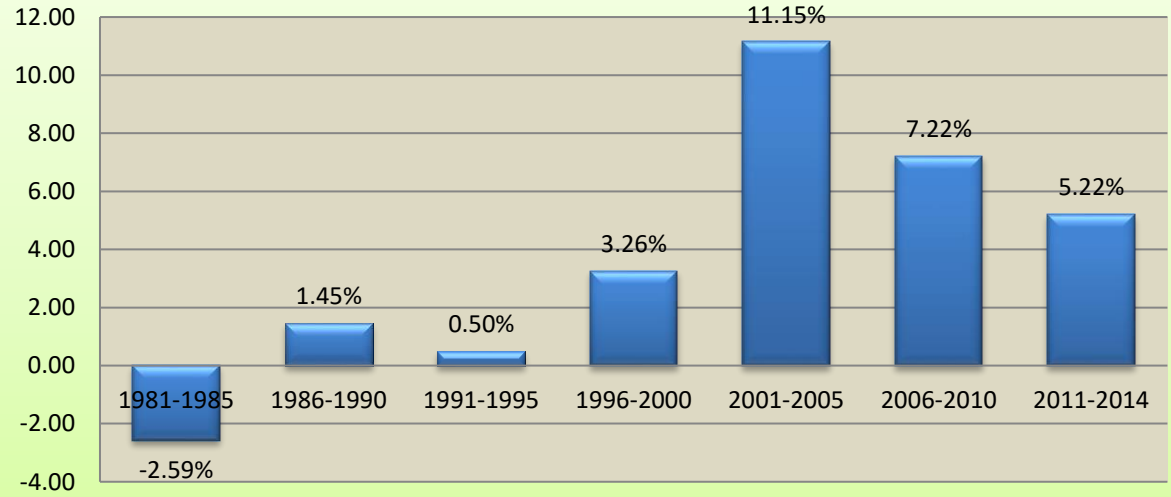
2.0 Stylised Facts about Financial Development and Merchandise Trade in Nigeria

2.1. Aggregate Output Growth Performance in Nigeria

The performance of Nigeria in terms of aggregate output growth over the period 1981 to 2014 is presented in Figure 1. It can be seen that aggregate

output growth declined by 2.59% in the 1981-1985 period but rose by 1.45% in the 1986-90 period. The negative growth recorded during the period of 1981-85 could be attributed to economic crises that pervaded the periods.[3] The adoption of Structural Adjustment Programme in 1986 by the then military administration of Ibrahim Badamosi Babangida led to the increase in economic growth. This is made possible through deregulation and liberalisation of some sectors of the economy. During the period between 1991 and 2000, the economy recorded positive growth, albeit relatively small. The advent of the current Democratic regime is associated with remarkable economic growth in the country. As seen in the Figure 1, for the first five years into the democratic era (2001-2005), average economic growth rate stood at 11.15% and the next decade into the democracy, the economy continued to record positive growth rate. This tremendous growth success is not unconnected with a conducive and enabling economic environment engendered through sound macroeconomic policies which are associated with an increase in the foreign direct investment and portfolio investment.

Figure 1: Real GDP Growth Rate (1981-2014)



[3] The macroeconomic crises that engulfed the country between 1981 and 1985 could be traced to the collapse of crude oil prices in the international market which adversely affected government's revenues cum its expenditures and further resulted in sliding of the economy into recession. Among the macroeconomic crises at these periods include fiscal and balance of payments deficits, exchange rate crisis (overvalue of the currency), rising debt profiles, capital flights and many others

Source: Computed by Authors from Data Obtained from Central Bank of Nigeria Statistical Bulletin and World Development Indicators (2014 Versions)

2.2 Structure and Performance of Trade before and after Economic Liberalisation

The overview of the structure and the performance of trade are presented in Table 2. We partitioned the analysis of the structure and performance of trade into two, namely: before and after trade liberalisation. In specific terms, we examine the structure and performance of trade before and after the adoption of the Structural Adjustment Programme in 1986. We also averaged the data over five-year interval for easy understanding. From the table, it can be seen that the structure and the performance of trade have varied considerably over time either before economic liberalisation or thereafter. Beginning with the structure and the performance of trade before the economic liberalisation, the ratio (share) of trade to GDP stood 31.88% in the 1971-75 period and rose to 23.37% in the 1976-80 period. It however declined to 17.53% in the 1981-85 period. The components of trade (export and import scaled by GDP) also varied over the same periods. For instance, the share of export and import in GDP rose from 16.25% and 15.63% in the 1971-75 period to 23.37% and 21.69% in the 1976-80 period respectively. Similar to the share of trade in GDP, the share of export and import in GDP nosedived to 17.53% and 14.99% in 1980-85 respectively.

In terms of trade growth rate, both export and import have deteriorated over the periods. Specifically, export and import growth rates declined from 51.27% and 42.51% in the period of 1971-75 to 31.65% and 13.57% in the period of 1976-80. They further deteriorated and even turned negative in the 1980-85 period (export growth rate -0.88% and -3.96%). When merchandise export and import growth rates were considered, their growth rates followed those of export and import growth rates as shown in the table. Second, Nigeria being an oil-producing country, we also considered the shares of oil export and import in GDP in this analysis. From Table 2, the share of oil import

in GDP deteriorated immensely in the period under consideration. To be specific, the share of oil import declined from 0.54% in the 1971-75 period to 0.32% in the 1981-85 period. While the share of oil export in GDP increased from 20.48% in the 1971-75 period to 22.70% in the 1976-80 period, it however declined to 16.73% in the 1981-85 period. Over the periods under consideration, the share of non-oil import in GDP increased from 13.61% in 1971-75 to 1976-80 and declined to 13.31% in the 1981-1985. The share of non-oil export in GDP reduced from 3.43% in the 1971-75 period to 0.57% in the 1981-85 period. General inference to be made from the above analysis is that the trade performance in Nigeria is mixed. However, a closer look at the table also reveals that there was poor performance of trade in the 1981-85 period. This poor performance can be attributed to an unfavourable economic environment and fluctuating terms of trade in the international transactions, particularly oil export due to chaos in the international oil market.

Due to economic crisis and macroeconomic misalignments in the 80s, Structural Adjustment Programme was adopted in 1986. The adoption of SAP came with conditional reforms in the form of economic liberalisation (liberalisation of trade and financial sector of the economy). These reforms are associated with an initial improvement in the economy in terms of the structure and performance of the external trade. The share of trade in GDP rose from 32.52% in the 1981-85 period to 65.59 % in the 1996-2000 period, a total of over 100 per cent increase. Since then, performance of the country in terms of trade has been on the downward path. Specifically, the share of trade in GDP declined from 63.92% in the 2001-2005 period to 39.60% in the 2011-2015 period. This may not be unconnected with the decline in the share of crude oil export in GDP that also declined during these periods. The share of crude oil export in GDP nosedived from 39.18% in the 1996-2000 period to 18.44% in the 2011-2014 period. This decline was caused by the militancy problem and pipeline vandalization in the Niger-Delta region of the country where the crude oil is being produced.

Also, when SAP was first introduced, non-oil export slightly increased from 0.57% during the economic crisis of 1981-1985 to 1.40% in the 1986-1990 period. For years the fortune of the share of non-export in GDP suffered setbacks as it deteriorated further abysmally from 1.48% during the SAP to 0.86% during 1995-2000 era. Since the inception of the current democratic era, the share of non-oil export in GDP has increased slightly as shown in the table but has not reached the figure recorded during SAP era. Another striking point noticeable in Table 2 is that non-oil import declined shortly after the introduction of SAP and stood at 12.18% in the 1986-1990 era from 17.31% during 1981-1985 era. Since these periods, non-oil import as a share of GDP had been on decline. However, despite the introduction of SAP, refined oil import kept on increasing from 0.32% in the 1981-85 period to 5.98% in the 1996-2000 era. The share of oil importation as percentage of GDP had declined considerably. A closer look at the table also revealed that merchandise export and import improved due to adoption of SAP but shortly thereafter merchandise export in particular deteriorated again but further increased again from 16.36% in the period 1996-2000 to 22.15% during the period 2001-2005. In recent times, however, merchandise export has further declined. Thus, it can be stated that the introduction of SAP brought about an immediate increase in the value of trade in Nigeria but the gains in trade was, however, short-lived as trade value deteriorated due to the decline in the value of exports.

Table 2: Structure and Performance of Trade before and after Economic Liberalisation in Nigeria

Structure and Performance of Trade in Nigeria before Economic Liberalisation in the 1980s											
Year	**exp_gdp**	**imp_gdp**	**trade_gdp**	**exp_grt**	**imp_grt**	**merexpgrt**	**merimpgrt**	**oil_imot_gdp**	**nonoil_imp_gdp**	**oil_exp_gdp**	**nonoil_exp_gdp**
1971-1775	16.25	15.63	31.88	51.27	42.51	55.26	46.58	0.54	13.61	20.48	3.43
1976-1980	23.37	21.69	45.06	31.65	13.57	31.02	25.87	0.40	19.94	22.70	1.60
1981-1985	17.53	14.99	32.52	-0.88	-3.96	-11.54	-10.05	0.32	17.31	16.73	0.57
Structure and Performance of Trade in Nigeria after Economic Liberalisation in the 1980s											
1986-1990	28.49	14.33	42.82	77.73	56.78	11.74	-2.77	2.30	12.18	24.92	1.48
1991-1995	34.62	22.60	57.22	62.67	67.74	-0.68	10.98	4.99	22.39	35.36	0.96
1996-2000	37.86	27.73	65.59	36.15	17.97	16.36	3.52	5.98	20.10	39.18	0.86
2001-2005	36.60	27.32	63.92	15.14	32.25	22.15	23.77	4.64	17.71	37.28	0.96
2006-2010	34.55	25.15	59.70	31.83	29.77	14.62	20.17	4.54	15.46	36.25	1.01
2011-2014	24.23	15.37	39.60	5.03	10.82	5.33	10.31	3.66	10.02	18.44	1.29

Source: Computed by Authors from Data Obtained from Central Bank of Nigeria Statistical Bulletin and World Development Indicators (2014 Versions)
Note: exp_gdp = export of goods and services as percentage of GDP, imp_gdp = import of goods and services as percentage of GDP, trade_gdp = trade as percentage of GDP, exp_grt = export growth rate, imp_grt = import growth rate, merimpgrt = merchandise export growth, merimpgrt = merchandise import growth rate, oil_imot_gdp = oil import as percentage of GDP, nonoil_imp_gdp = non-oil import as percentage of GDP, oil_exp_gdp = oil export as percentage of GDP and non-oil export as percentage of GDP.

Table 3: Overview of the Nigerian Financial Sector

	Broad money (% of GDP)	Domestic credit provided by financial sector (% of GDP)	Domestic credit to private sector (% of GDP)	Domestic credit to private sector by banks (% of GDP)	Exports of goods and services (% of GDP)	Lending interest rate (%)	Market capitalization of listed companies (% of GDP)	No of Banks
1961-1965	10.14	6.66	5.75	5.42	9.27	NA	NA	
1966-1970	12.52	14.01	6.89	5.86	10.24	7.00	NA	14
1971-1975	12.59	7.11	5.82	5.45	16.25	6.85	NA	16
1976-1980	23.05	18.23	10.09	9.77	23.37	7.09	NA	19
1981-1985	31.58	41.84	16.43	16.26	17.53	9.62	NA	24
1986-1990	24.54	32.21	13.07	12.99	28.49	17.26	4.25	42
1991-1995	23.82	32.31	12.05	11.89	34.62	23.43	7.93	65
1996-2000	17.95	14.63	11.71	11.68	37.86	19.48	9.34	58
2001-2005	20.94	16.07	13.96	13.93	36.60	21.21	13.94	77
2006-2010	29.83	21.31	25.20	25.03	34.55	17.05	26.37	24
2011-2014	20.87	21.61	12.87	12.83	24.23	16.52	10.89	24

Source: Computed by Authors from Data Obtained from Central Bank of Nigeria Statistical Bulletin and World Development Indicators (2014 Versions).

2.3 Structure of Financial Sector in Nigeria

Financial liberalization was adopted in Nigeria during the mid-1980s as part of the Structural Adjustment Programme (SAP) (Fowowe, 2008; Folarin and Asongu, 2019, Folarin, 2019). Arguably, the policy which entails interest rate liberalization, privatization of the government owned banks, establishment of the Nigeria Stock Exchange market among others, led to development of the financial sector in Nigeria as shown by improvement in financial sector indicators presented in Table 3. First, it can be seen that the lending rate increased from an average of 8% prior to the liberalization of the interest rate to an average of 20% after the liberalization. Second, the number of banks rose significantly from less than 30 prior to 1986 to as high as 77 in 2001-2005 although the number of banks in the country declined to 24 in 2006 when the minimum capitalization of the banks was increased from 5 billion naira to 25 billion naira. The reform was introduced to strengthen the capital base of existing banks to avoid bank insolvency. In order to meet up with the new capital base, some banks merged to form a new bank while some were taken over.

The stock market was a veritable source of funds for banks to realise the needed funds. Hence, Nigeria stock market capitalisation as a ratio of GDP as seen from Table 4 increased significantly after the adoption of the new capital base and then declined afterwards. Specifically, it rose from 13.94% between the periods 2001 and 2005 to 26.37% during 2006-2010, the immediate period after the implementation of the reform, and then declined to 10.89% during 2011-2014.

Further, to ensure safe and sound banking practices through effective supervision and to assist the CBN in formulating banking policies that will strengthen the performance of existing banks in the country, the Nigeria Deposit Insurance Corporation (NDIC) was established in 1988. Despite the existence of NDIC, it was observed that the law guiding the operation of banks were very weak, thus, contributing to panic within the banking sector (Fowowe, 2008). This development adversely affected the development of the sector; although the number of banks was increasing, the depth of the

financial sector was on the declining path, as evident in the share of broad money to GDP presented in Table 3. To address the situation which was also observed in other developing countries immediately after the liberalization of their financial sector, the government introduced the CBN Decree No. 24 of 1991 and the Banks and Other Financial Institutions Decree No 29 also of 1991. These Decrees increased the Central Bank of Nigeria (CBN) regulatory and supervisory powers over the deposit money banks and other financial intermediaries operating in Nigeria, which in turn, restored the confidence of the people in the banking sector.

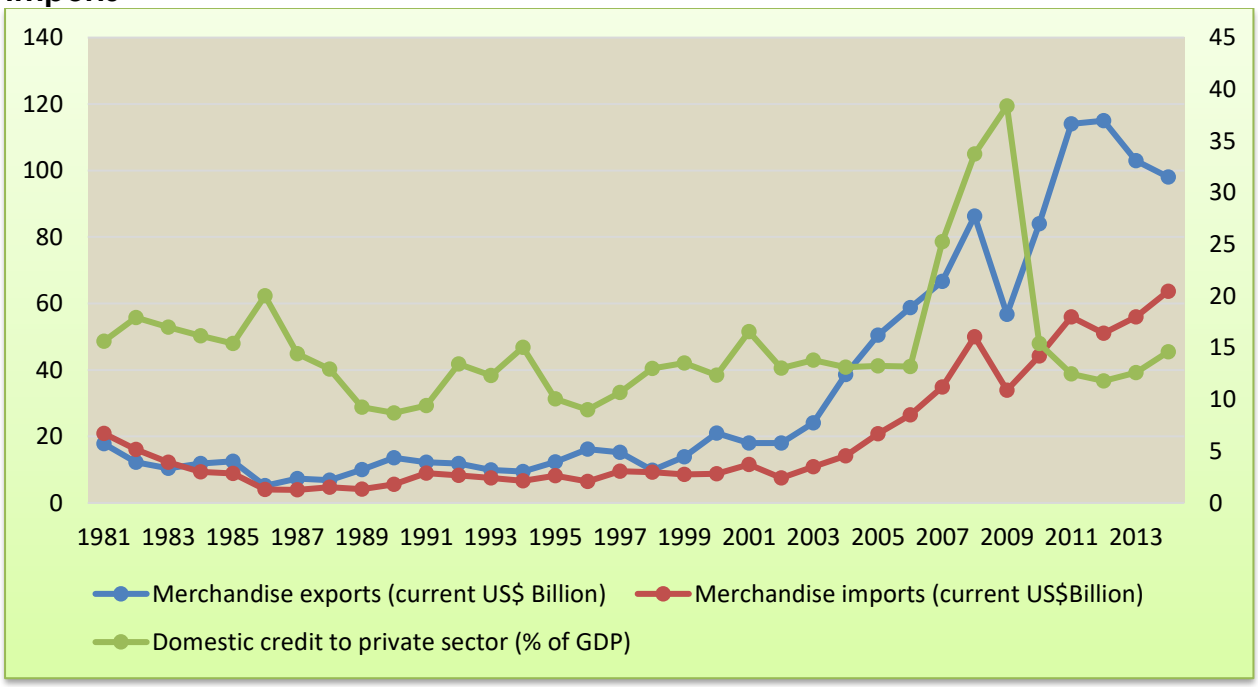
In 1999, universal banking was introduced in Nigeria. Due to this policy initiative, commercial banks within the financial sector could perform non-traditional financial intermediation functions. As a result, commercial banks began to perform the function of merchant and mortgage banks. Specifically, they engaged in non-traditional functions such as Mutual Funds, Housing Finance, Insurance, and Stockbroking among others. In 2010, the Universal Banking (UB) Model was repealed. It was believed that the adoption of the model diverted the commercial banks away from their core banking activities. In reaction to the repeal of the UB Model, existing commercial banks' structure was changed. As a result, some of them revolved into holding companies, which allows them to establish subsidiaries under the holding that now perform those non-traditional banking activities under the new banking structure.

2.4 Trend of Nigeria Financial Development and Merchandise Exports and Imports.

From Figure 2, Merchandise exports and imports are labelled in the left hand-side while financial development is labelled on the right hand-side. An over-reaching conclusion from the chart is that financial development moves with merchandise exports and imports in Nigeria. After the financial crisis of 2008/2009 where many financial development indicators declined sharply, it is seen that merchandise imports and exports also declined, although not immediately. A plausible conclusion from this trend is that financial

development and merchandise exports and imports exhibit positive relationship.

Figure 2: Trend of Financial development and Merchandise Exports and Imports



3.0 Methodology Framework, Data Sources and Description

This section presents the methodologies adopted in this study. The methodologies include Augmented Dickey-Fuller and Philips-Perron unit root test, Granger causality test and Autoregressive Distribution lag bound testing method. The purposes of employing these methodologies are as follows. The unit root tests are carried out to determine the order of integration of the variables used in this study because it is believed in economic parlance that time series data are always time trending and using such data for empirical investigation without determining the stationarity or otherwise of the data might result in spurious estimation and analysis. Granger-causality test, on the other hand, is carried out to determine the direction of the relationship or causality between the variables of interest while ARDL technique is used to estimate and determine the extent of long run and short run dynamic

relationship between our variables of interest. For brevity, only Granger-causality and ARDL frameworks are presented here.

3.1 Granger-Causality Test Framework

Granger-causality test was developed by W. C. J. Grangerin 1969. The purpose of developing this methodology is to examine or determine whether one or more variables cause one another. Based on Granger-causality test, a researcher may want to know whether X-variable causes Y-variable provided the past values of X-variables can be employed to predict Y-variable more accurately rather than relying on the past values of Y-variables. If this happens, that is, if X-variable statistically predicts Y-variable, it can be said that X-variable Granger-causes Y-variable. Granger-causality test is predicted on the null hypothesis that X-variable does not Granger-cause Y-variable. This null hypothesis against the alternative hypothesis is shown in the context of VAR framework as follows:

$$X_t = \sum_{i=1}^{n} \alpha_i X_{t-1} + \sum_{i=1}^{n} \beta_j Y_{t-j} + \varepsilon_{it} \quad \text{----------(1)}$$

$$Y_t = \sum_{j=1}^{n} \lambda_j Y_{t-j} + \sum_{i=1}^{n} \delta_i X_{t-i} + \varepsilon_{2t} \quad \text{----------(2)}$$

The decision to reject or not to reject the null hypothesis is based on the F-test result estimated by the following formula:

$$F = \frac{(RSSR - RSSUR)/l)}{(RSSUR/n-k)} \quad \text{----------(3)}$$

Where:
RSSR = restricted sum of squares
RSSUR = unrestricted sum of squares
l = number of lagged terms
k = number of parameters
n = number of observations

To make a decision, the computed value of F-statistics is compared with the critical F-statistics. When the computed F-statistics value is greater than the critical F-statistics, then it is said that X-variable Granger-causes Y-variable and vice versa, otherwise no Granger-causality takes place between the two

variables. However, it is important to note that p-value is used in empirical studies to make decision based on output from econometric software and appropriate significant level.

Granger-causality Model Specification

Financial Development and Merchandise Export

$$EXP_t = \alpha_0 + \sum_{i=1}^{p} \alpha_1 EXP_{t-i} + \sum_{j=1}^{p} \alpha_2 FD_{t-j} + \varepsilon_t \text{ ----------(4)}$$

$$FD_t = \alpha_3 + \sum_{i=1}^{p} \alpha_4 EXP_{t-i} + \sum_{j=1}^{p} \alpha_5 FD_{t-j} + \varepsilon_t \text{ ----------(5)}$$

Where: EXP is the merchandise export, FD is financial development, ε is the error term and t is time.

Financial Development and Merchandise Import

$$IMP_t = \beta_0 + \sum_{i=1}^{p} \beta_1 IMP_{t-i} + \sum_{j=1}^{p} \beta_2 FD_{t-j} + \nu_t \text{ ----------(6)}$$

$$FD_t = \beta_3 + \sum_{i=1}^{p} \beta_4 IMP_{t-1} + \sum_{j=1}^{p} \beta_5 FD_{t-j} + \nu_t \text{ ----------(6)}$$

Where: EXP is the merchandise import, FD is financial development, p is the lag length, ν is the error term and t is time.

3.2 Autoregressive Distributed Lag Framework

Pesaran, Shin and Smith (2001) developed the Autoregressive Distributed Lag method. The method was developed purposely to overcome the restrictive assumption upon which Johansen cointegration test was designed and applied. To be specific, Johansen cointegration test was developed on the assumption that the fundamental variables must be integrated in the order of 1 or I(1). However, ARDL can be used to determine variables' cointegration irrespective of order of integration of the variables. ARDL cointegration framework (p, q) in accordance to Pesaran and Shin are specified as follows:

$$y_t = \alpha_0 + \alpha_1 t + \sum_{i=1}^{p} \phi_i y_{t-i} + \beta^{'} x_t + \sum_{i=0}^{q-1} \beta^{*'} \Delta x_{t-i} + u_t \text{ ----------(7)}$$

$$\Delta x_t = P_1 \Delta x_{t-1} + P_2 \Delta x_{t-2} + ... + P_3 \Delta x_{t-3} + \varepsilon_t \text{ ----------(8)}$$

Where x_t is k-dimensional I(1) variables which do not cointegrate among themselves. u_t *and* ε_t are uncorrelated disturbances with zero means and constant variance-covariance. $\mathbf{P_i}$ are *k* x *k* coefficient matrices such that the VAR process in Δx_t becomes stable. Pesaran and Shin also assumed that the roots of the $1 - \sum_{i=1}^{p} \phi_i z^i = 0$ all fall outside the unit circle and there exists a stable unique long-run relationship between y_t *and* x_t.

ARDL Model Specification

Following Pesaran and Shin (2001) framework above, the estimated ARDL models for merchandise exports and imports as dependent variable which captures both the short-run and long-run effects of the explanatory variables are presented as follows:

ARDL EXPORT MODEL

$$\Delta LMEXP_t = \alpha_1 + \lambda_1 LMEXP_{t-1} + \lambda_2 LFD_{t-1} + \lambda_3 LNEXRT_{t-1} + \lambda_4 LGDPRW_{t-1} + \lambda_5 LVAIND_{t-1} + \lambda_6 FDI_{t-1} + \sum_{i=1}^{n} \beta_t \Delta LEXP_{t-1} + \sum_{i=0}^{n1} \beta_t \Delta LFD_{t-1} + \sum_{i=0}^{n2} \beta_t \Delta LNEXRT_{t-1} + \sum_{i=0}^{n3} \beta_t \Delta LGDPRW_{t-1} + \sum_{i=0}^{n4} \beta_t \Delta LVAIND_{t-1} + \sum_{i=0}^{n5} \beta_t \Delta FDI_{t-1} + \varepsilon_t$$

(9)

ARDL IMPORT MODEL

$$\Delta LMIMP_t = \alpha_1 + \lambda_1 LMIMP_{t-1} + \lambda_2 LFD_{t-1} + \lambda_3 LREXRT_{t-1} + \lambda_4 LRGDP_{t-1} + \lambda_5 LINV_{t-1} + \lambda_6 LEXTRESV_{t-1} + \sum_{i=1}^{n} \beta_t \Delta LMIMP_{t-1} + \sum_{i=0}^{n1} \beta_t \Delta LFD_{t-1} + \sum_{i=0}^{n2} \beta_t \Delta LREXRT_{t-1} + \sum_{i=0}^{n3} \beta_t L\Delta RGDP_{t-1} + \sum_{i=0}^{n4} \beta_t \Delta LINV_{t-1} + \sum_{i=0}^{n5} \beta_t \Delta LEXTRESV_{t-1} + \varepsilon_t \quad (10)$$

Where *LMEXP, LMIMP, LFD, LNEXRT, LREXRT, LRGDP, LGDPRW, LVAIND, LINV, FDI, LEXTRESV* and their lags depict merchandise export, merchandise import, financial development, nominal exchange rate, real exchange rate, domestic real GDP, rest of the world GDP, value-added of industrial production, investment (gross fixed capital formation), foreign direct investment and external reserve and their lags respectively. λ's and β's are coefficient parameters while ε_{it} is stochastic disturbance term. All the variables are logged except foreign direct investment which is scaled by gross domestic product.

3.3 Data Sources and Descriptive Statistics

The study is designed to econometrically examine the dynamic relationship between financial development and merchandise trade (export and import) in Nigeria using the data from 1981 to 2014.The variables used include merchandise export, merchandise import, nominal exchange rate, real exchange rate, domestic real GDP, rest of the world GDP, value-added of industrial production, investment, foreign direct investment, and external reserve. The merchandise exports are goods exported from Nigeria to the rest of the world, particularly Nigeria's trading partners while merchandise imports are good imported from the rest of the world to Nigeria. Both merchandise exports and imports are measured in US dollar. Real GDP and rest of the world's GDP captures the domestic economic growth and the rest of the world's economic growth respectively and they are measured in US dollar. Nominal and real exchange rates are measured in terms of domestic currency per unit foreign currency (US dollar). Foreign direct investment captures foreigners' investment in Nigeria (inflow FDI expressed as

percentage of GDP), investment is measured using gross fixed capital formation scaled by GDP and external reserve is measured in US dollar. All the variables are obtained from World Development Indicators and they are in log forms except foreign direct investment which is already scaled by Gross Domestic Product. Table 4 presents the descriptive analysis of these variables. From the table, it is evident that most of the variables considered recorded variability around the mean and are normally distributed (except LFDI which seems not to be normally distributed) as shown by standard deviation and Jarque-Bera normality test.

Table 4: Descriptive Statistics of the Variables

Variable	LMEXP	LMIMP	LFD	LRGDP	LGDPRW	LVAIND	LREXRT	LINV	FDI	LNEXRT	L
Mean	23.815	23.309	2.671	30.931	8.651	3.574	4.800	28.89	3.073	3.165	
Minimum	22.363	22.090	2.130	30.360	8.381	3.029	3.910	28.220	0.638	-0.481	
Maximum	25.468	24.880	3.570	31.850	8.848	3.970	6.300	29.870	10.83	5.066	
Std. Dev.	0.931	0.846	0.379	0.472	0.143	0.256	0.660	0.521	2.270	1.937	
Jarque-Bera	3.384	2.760	2.334	4.389	2.208	2.326	4.791	3.840	30.868	3.769	
Probability	0.1841	0.2515	0.311	0.1114	0.3315	0.3125	0.0911	0.1466	0.0000	0.1519	
Observations	34	34	34	34	34	34	34	34	34	34	

Source: Computed by Authors using EVIEWS 9

Notes: *LMEXP, LMIMP, LFD, LRGDP,* LGDPRWFDI, LNEXRT, LVAIND, LREXRT, LINV and LEXTRESV denote *natural log of* merchandise exports, *natural log of* merchandise imports, *natural log of financial development, natural log of* real Gross Domestic Product (GDP), natural log of income from the rest of the world, foreign direct investment as a share of GDP, *natural log of* nominal exchange rate, natural log of industrial value-added, natural log real effective exchange rate, natural log of investment represented by gross fixed capital formation and natural log of external reserves respectively

4.0 Empirical Results and Discussion

4.1 Correlation Matrix Results

In Table 5 the results of pairwise correlation analysis of our variables of interest for both export and import models are presented. In empirical studies, correlation analysis is usually carried out to determine the degree of association between two or more variables. Besides, it is also done to detect the existence of collinearity or multicollinearity among the explanatory or control variables. From Table 5, financial development, official nominal exchange rate and income from the rest of the world are positively and significantly correlated with merchandise export in Nigeria. In more specific terms, financial development, official nominal exchange rate and income from the rest of the world have the correlation coefficients of 0.612 (4.382),

0.717 (5.813) and 0.817 (8.026) with merchandise exports respectively.[4] Surprisingly, industrial value-added and foreign direct investment have negative relationships with merchandise export, albeit only investment is statistically significant. A cursory look at the table reveals that correlation coefficient between industrial value-added and merchandise is -0.372 (-2.273). As regards import model, financial development, domestic income (proxied by real GDP), investment (proxied by gross fixed capital formation and external reserves are positively and significantly associated with import in Nigeria. Specifically, financial development, domestic income, investment and external reserves have the correlation coefficients of 0.721 (5.888), 0.645 (4.772), 0.897 (10.404), 0.665 (5.017) with merchandise imports respectively.

Table 5: Correlation Matrix Analysis Results

EXPORT MODEL						
Variable	LMEXP	LFD	LNEXRT	LGDPRW	LVAIND	FDI
LMEXP	1.000					
LFD	0.612* (4.382)	1.000				
LNEXRT	0.717* (5.813)	0.218 (1.263)	1.000			
LGDPRW	0.817* (8.026)	0.347** (2.091)	0.970* (22.685)	1.000		
LVAIND	-0.372** (-2.273)	-0.719* (-5.852)	-0.053 (-0.301)	-0.190 (-1.099)	1.000	
FDI	-0.088 (-0.499)	-0.337*** (-2.023)	0.391** (2.400)	0.266 (1.561)	0.537* (3.605)	1.000
IMPORT MODEL						
	LMIMP	LFD	LNEXRATE	LRGDP	LINV	LEXTRESV
LMIMP	1.000					
LFD	0.721* (5.888)	1.000				
LREXRT	-0.017 (-0.098)	0.155 (0.886)	1.000			
LRGDP	0.645* (4.772)	0.347** (2.091)	-0.538* (-3.61)	1.000		
LINV	0.879* (10.404)	0.758* (6.575)	0.134 (0.767)	0.341** (2.054)	1.000	
LEXTRESV	0.665* (5.017)	0.454* (2.884)	-0.465* (-2.973)	0.896* (11.444)	0.430** (2.696)	1.000

Source: Computed by Authors using EVIEWS 9
Note: *.** and *** denote 1%, 5% and 10% level of significance respectively
The values in parentheses stand for t-test values

[4]Values in parenthesis are t-statistic test values.

4.2 Results of Unit Root Tests

Table 6 presents the results of unit root tests using Augmented Dickey-Fuller and Philip-Perron unit root tests. Unit root test provides additional information about the characteristic of our variables of interest so as to avoid spurious regression estimation. In other words, through unit root test, we were able to determine the stationarity properties of our variables. In other words, we were able to determine whether the variables are stationary at level or they have to be first-differenced before becoming stationary. The null hypothesis of both unit root tests used is that the variable under examination contains unit root, that is, variable is not stationary as it trends over time. This null hypothesis is tested against the alternative hypothesis stipulating that the variable is stationary. The null hypothesis is tested at level first. The variable under examination is said to be statistically significant at level, if the result obtained enables us to reject the null hypothesis. However, if we were unable to reject the null hypothesis, it means the variable under examination contains unit root test and can only be made stationary by first difference. Thus, from Table 6, we can observe that all the variables considered either from export model or import model (except for foreign direct investment) contain unit root and they were made stationary in first difference. Thus, the variables are integrated of order 1 except foreign direct investment which is integrated of order 0. The mixture of the order of integration of the variables from the unit root results further justifies our choice of Bound tests co-integration techniques over Johansen and Engel-Granger co-integration test.

Table 6: ADF and P-P Unit Root Test Result

	Augmented Dickey-Fuller (Constant)		**Phillip-Perron (Constant)**		
Variable	**Level**	**First Difference**	**Level**	**First Difference**	**Decision**
LMEXP	-0.1692	-4.8125*	-0.0995	-5.6969*	I(1)
LMIMP	-0.1090	-5.4687*	-0.3618	-5.4905*	I(1)
LFD	-1.2622	-4.5301*	-1.4487	-4.4270	I(1)

LRGDP	1.7868	-4.2892*	1.7868	-4.2709*	I(1)
LRGDPRW	-0.9821	-4.8168*	-1.2379	-4.8017*	I(1)
LVAIND	-0.3811	-4.8629*	-0.4076	-4.7574*	I(1)
LREXRT	-2.0239	-4.2738*	-2.2070	-4.1844*	I(1)
LEXTRESV	-1.3847	-6.9051*	-1.3847	-6.9378*	I(1)
LINV	-1.4503	-3.0975**	-1.8071	-4.5423*	I(1)
LFDI	-3.4808**	-7.8633*	-3.4492**	-12.4882*	I(0)
LNEXRT	-2.0102	-4.8471*	-2.1413	-4.8471*	I(1)

Source: Computed by Authors using EVIEWS 9
Note: *.** and *** denote 1%, 5% and 10% level of significance respectively

4.3 Granger-Causality Test

In Table 7, we present the results of Granger-causality tests between financial development and merchandise exports on the one hand and merchandise imports on the other hand. The results show that in the case of export model, the direction of causality is bidirectional. This implies that financial development Granger-causes merchandise exports and merchandise exports Granger-cause financial development. However, in the case of import model, there is existence of unidirectional causality, running from merchandise imports to financial development. Thus, it implies that only merchandise imports Granger-cause financial development and no other way around.

Table 7: Granger-Causality Test Results

Null Hypothesis	F-Statistic	Probability Value
LFD does not Granger Cause LMEXP	6.5506*	0.0048
LMEXP does not Granger Cause LFD	5.1011**	0.0132
LFD does not Granger Cause LMIMP	1.8606	0.1750

LMIMP does not Granger Cause LFD	7.6516*	0.0023

Source: Computed by Authors using EVIEWS 9
Notes: *.** and *** denote 1%, 5% and 10% level of significance respectively, LMEXP is natural logarithm of* merchandise exports*, LMIMP is natural logarithm of* merchandise imports*, LFD is natural logarithm of financial development,

4.4. Bound Testing Cointegration Test Results

Having determined the order of integration of our variables, attention is devoted in this subsection to examine whether there is long-run relationship among the variables used in both models. In order to examine this, we employ cointegration estimation technique developed by Pesaran et al. (2001). This cointegration estimation method is known as Bounds testing approach to cointegration. To determine whether cointegration exists among our variables of interest, the calculated F-statistics must be greater than the upper bound of Pesaran et al.'s critical value. If the calculated value of F-statistic is less than the critical value, then there is no cointegration. It is impossible to make a concise decision if the calculated value of F-statistics test falls between the lower and upper bound values. From the Table 8, it can be observed that for both models, the calculated values of F-statistics tests are greater than the upper bound values which imply that our models are cointegrated at 1% level of significance.

Table 8: Result of Bound test co-integration tests

	Export Model		**Import Model**	
Test Statistic	Value	K	Value	K
F-statistic	4.8907	5	9.2135	5
Critical Value Bounds				
Significance	I(0) Bound	I(1) Bound	I(0) Bound	I(1) Bound
10%	2.26	3.35	2.26	3.35
5%	2.62	3.79	2.62	3.79
2.5%	2.96	4.18	2.96	4.18
1%	3.41	4.68	3.41	4.68

Source: Computed by Authors using EVIEWS 9

4.5 ARDL Long-run Form and Short-run Dynamic Results

Having established that the variables are mixture of order of integration I(1) and I(0) and are cointegrated based on the results obtained using Pesaran et al's Bounds testing approach to cointegration, we proceed to estimation and analysis of the long-run relationships and short-run dynamics using ARDL estimation technique. The results are presented in Table 9. Beginning from the short-run dynamics results, the error correction terms which denote the speed of adjustment are found to be negative and significant as well as less than one, precondition criteria for the establishment of adjustment towards the long-run equilibrium after a shock in the short-run that causes disequilibrium in the economy. Specifically, the coefficients of error correction terms for both export and import models are -0.9971 and -0.9102 respectively. The results obtained show that the speed of adjustment towards long-run equilibrium is quick, such that about 99% and 91% of the disequilibrium caused by the previous year shocks are adjusted within a year.

The long-run results for export model show that financial development has a positive and significant effect on merchandise exports, with a coefficient of 0.2610 ($p<0.05$). Similarly, other explanatory variables such as income from the rest of the world and industrial value added have positive and significant effects on the merchandise exports with coefficients of 2.6452 ($p<0.05$) and 2.3696 ($p<0.05$) respectively. These results are not only in line with theoretical predictions that financial development, income from the rest of the world and industrial value-added should be positively linked with the exports but also in tandem with some empirical findings such as Kletzer and Bardhan, 1987; Baldwin, 1989; Beck, 2002; Svaleryd and Vlachos, 2005, Becker and Greenberg, 2005; Manova, 2013 for financial development-trade nexus; Joshi and Littele, 1994; Hassan and Khan, 1994; Nadeem, Azam and Islam, 2012; Zakaria, 2014 for world income-export nexus and Nadeem, Azam and Islam, 2012 for industry value-added-export nexus. Nominal exchange rate is negatively and significantly linked with merchandise export in Nigeria which implies that 1% depreciation of Naira in international market will worsen merchandise exports by 0.43% in Nigeria. Our finding is in line with the work of

Sharma (2000) which found a significant negative relationship between real effective exchange rate and exports in India. We however did not find significant relationship between FDI and merchandise exports in Nigeria. This may not be unconnected with the nature of FDI inflow and the macroeconomic environment in terms of support for foreign direct investors in Nigeria.

With regards to the import model, we consider the effects of financial development, real effective exchange rate, domestic GDP or income, domestic investment and the external reserves on the merchandise imports in Nigeria. As reported in Table 9, we found a negative and significant relationship between financial development and import in Nigeria. In specific term, an increase in financial development by 1% will reduce merchandise import by 0.426% in the long run. Our result is significantly different from that of Ahad and Dar, (2016) who found a positive link between financial development and import demand in Bangladesh economy. However, it is in line with the theoretical prediction of Beck (2002) that well-developed financial systems help in availing liquidity constraints, thus increasing the production capacity of domestic firms, which in turn, lowers importation. Thus, this further reflects the importance of reducing inefficiency within the financial systems. Furthermore, we find a positive relationship between domestic income and import as it is theoretically predicted, particularly in developing countries like Nigeria. Our finding also supports many empirical results (Sinha, 1997; Aker, 2008 and Zakaria, 2014). In addition, our study's findings revealed that investment and import are positively linked. Hence, an increase in investment increases demand for imports. However, we find no empirical support for the effects of real effective exchange rate and external reserves on the merchandise imports.

The last section of the results presented in Table 9 are the results of various diagnostic tests carried out to validate the model estimated employing ARDL approach. The tests carried out include serial correlation, conditional heteroskedasticity, Ramsey RESET and normality tests. All these tests are based on the null hypotheses of no serial correlation, no heteroskedasticity and models are well specified and are normally distributed with zero mean

and constant variance. These null hypotheses of existence of no problems (No serial correlation, homoscedasticity, model is correctly specified and normal distribution) are tested against the alternative hypotheses of existence of these problems. If the tests are not statistically significant, it means the problems do not exist. However, if the tests are significant statistically, it means that the problems exist, and the model become imprecise and problematic which will not be good for making inference and policy decision. From the table, it is possible to see that there are no problems of serial correlation, heteroskedasticity, model misspecification and normality in the models. This is because none of the test is statistically significant. The implication of this is that our obtained results from our specified models are robust and can be relied upon for policy making.

Table 9: Results of ARDL Models for Merchandise Exports and Imports

Variable	Export Model		Import Model	
Short-run coefficient				
	Coefficient	t-Statistic	Coefficient	t-Statistic
DLFD	0.5547**	2.7329	0.0235	0.1022
DLNEXRT	-0.4323*	-5.4960		
DLREXRT			0.1012	1.4564
DLRGDP			1.1252*	3.4884
DLRGDPRW	-3.2781	-1.3819		
DLVAIND	1.0045	2.1017		
DLINV			0.1163	0.6448
DLFDI	-0.0141	-1.0267		
DLEXTRESV			-0.0173	-0.2705
ECT(-1)	-0.9971*	-6.5905	-0.9102*	-5.2709
Long-run Coefficients				
Constant	-128.7375*	-6.5554	-37.0272*	-7.3875
LFD	0.2610***	1.7710	-0.4260***	-1.9374
LNEXRT	-0.4336*	-5.1682		
LREXRT			0.1112	1.5592
LRGDP			1.2362*	4.8855
LRGDPRW	2.6452*	3.0031		
LVAIND	2.3696*	5.5654		
LINV			0.7661*	3.9929
FDI	-0.0142	-1.0368		
LEXTRESV			0.0640	0.7849
Diagnostic Test				
Test	**Value**	**p-value**	**Value**	**p-value**
Jarque-Bera	2.2067	0.3318	3.7941	0.1500
B-G SCLM test	0.3048	0.5808	1.9443	0.1632
HT B-P-G	8.4091	0.4935	8.8243	0.4536
HT ARCH	0.4309	0.5115	0.5223	0.4699
Ramsey Reset Test	0.1422	0.7097	0.0364	0.8504

Source: Computed by Authors using EVIEWS 9

Note: *. and *** denote 1%, 5% and 10% level of significance respectively**

5.0. Conclusion and Policy Recommendation

The nexus between financial development and international trade has received great attention among the finance and international trade scholars, albeit with controversial conclusions. Due to this and also the penchant for a country-specific study, the current study examines not only the effect of financial development on merchandise exports but also extends the study to the effects of financial development on merchandise imports, which in turn, enables us to examine in a holistic manner the impact of financial development on international trade in Nigeria. In more specific

terms, our interest is to investigate the short-run dynamic and long-run effects of financial development on both merchandise exports and imports. We achieved this objective by employing Autoregressive Distributed Lag method developed by Pesaran et al. (2001) which possesses the ability to capture both the short-run dynamic and long-run effects of one variable on the other.

Our empirical findings are more revealing. Specifically, we found that financial development is a tool for the promotion of merchandise exports in Nigeria both in the short run and in the long run. This is in tandem with the finding in Beck (2002), where it was documented that financial development exert positive effect on merchandise exports in both developed and developing countries. Other revealing findings include significant positive impact of income from the rest of the world and domestic industrial value-added on the merchandise exports as well as worsening of merchandise exports through the naira depreciation.

In addition, we also documented that as domestic income proxied by real GDP rise, merchandise imports rise. This may not be unconnected with propensity for foreign luxurious goods as the citizens' income gets improved due to improvement in the economy. All these effects have policy implications. Since it has been discovered that financial development is indispensable for actualising increased productivity growth and exports, thus, there is need to set-up appropriate policies that will strengthen the performance of the existing financial institutions, particularly banks and other ancillary financial institutions, so that they will be able to perform their intermediary roles of credit facilitation effectively and efficiently.

In conclusion, the findings of this study provide support for policies aimed at promoting a well-developed financial system in Nigeria. In specific terms, the empirical evidence revealed that the development of the financial sector is positively associated with an increase in international trade. This implies that international trade serves as a channel through which financial development stimulates economic growth. Hence, the implementation of financial reforms that will bring about improvement in the performance of financial institutions

by enhancing the efficiency of service rendered by the financial institutions and increasing access to finance by firms is seen to be imperative.

The implication of an increase in access to finance by firms is that large share of the firms will have access to the required finance to fund their investment, thus eliminating issues associated with liquidity constraints, thereby increasing firms' productivity level (Aghion, et al., 2009; Folarin, 2016; Fowowe, 2017). Since productivity level is positively associated with output level, export level will increase as domestic production increases while the level of importation in the economy reduces. These effects are expected to take place because domestic production level is positively associated with financial development.

References

Adeniyi, O., Oyinlola, A., Omisakin, O., and Egwaikhide, F.O. (2015), "Financial development and economic growth in Nigeria: Evidence from threshold modelling," *Economic Analysis and Policy*, 47, 11–21.

Ahad, M. and Dar, A. A. (2016), "A dynamic relationship between financial development and import demand for Bangladesh: An evidence from combine cointegration and granger causality approach," *MPRA Paper No. 71963*, Online at https://mpra.ub.uni-muenchen.de/71963/

Aker, Ş. L. (2008), "Major determinants of imports in Turkey," *Turkish Studies*, 9:1, 131-145

Aghion P., Bacchetta P., Ranciere R and Rogoff K. (2009) "Exchange rate Volatility and Productivity Growth: The role of Financial Development" *Journal of Monetary Economics* Vol. 56, No 6, pg 494-513

Babatunde M. A. and Fowowe, B. (2010), "International trade and financial development link: Evidence from Sub-Saharan Africa," .*Journal of Economic Management*, 7(1), 89-104

Baldwin, R. (1989), Exporting the capital markets: comparative advantages and capital markets imperfections. In D. Audretsch, L. Sleuwaegen and H. Yamawaki *The convergence of international and domestic markets*. Amsterdam: North Holland

Baltagi, B. H. Demetriades, P. O. and Law, S. H. (2009), "Financial development and openness: evidence from panel data," *Journal of Development Economics*, 89(2), 285-296.

Beck T. (2002), "Financial development and international trade: Is there a link?" *Journal of International Economics*, 57, 107-131.

Beck, T. (2003), "Financial dependence and international trade," *Review of International Economics* 11, 107-131.

Becker, B., and Greenberg, D. (2005), "Financial dependence and international trade," Mimeo. University of Illinois at Chicago.

Berman, N. (2009), "Financial crises and international trade: The long way to recovery," *Max Weber Programme Working Paper* 2009.04, European University Institute

Bojanic A. N. (2011), "The impact of financial development and trade on the economic growth of Bolivia," *Journal of Applied Economics*, 15(1), 51-70

Do, Q-T., and Levchenko, A. (2004), "Trade and financial development," *World Bank, Working Paper 3347*, Washington, DC.

Dollar, D. and Kraay, A. (2004), "Trade, growth, and poverty," *Economic Journal,* 114(493), F22-F49.

Feyrer J. (2009), "Trade and income — Exploiting time series in geography," *NBER Working Paper 14910*.

Folarin, O. (2016) **"**Exchange rate volatility and productivity growth in Nigeria: Any role for financial development". An Msc dissertation submitted to the department of Economics, University of Ibadan.

Folarin, O. (2019) "Financial reforms and industrialization: Evidence from Nigeria", *Journal of Social and Economic Development*, 21(1), 166-189.

Folarin, O. and Asongu, S. (2019) "Financial liberalization and stability of money demand in Nigeria", *Journal of Policy Modelling*, 41(5), 963-980.

Fowowe, B. (2008), "New estimates of the effect of financial liberalisation on economic growth in Nigeria", *Savings and Development*, 32, 205-225.

Fowowe, B. (2017). Access to finance and firm performance: Evidence from African countries. *Review of Development Finance, 7*(1), 6-17.

Goldberg P. K. and Pavcnik, N. (2005), "Trade, wages, and the political economy of trade protection: Evidence from the Colombian trade reforms," *Journal of International Economics*, 66, 75–105.

Goldsmith, R. W. (1969), *Financial structure and development*. New Haven, CT: Yale University Press.

Granger C. W. J. (1969), "Investigating causal relations by econometric model and cross-spectral methods," *Econometrica*, 7(3), 424-438.

Hasan, M. A. and Khan, A. H. (1994), "Impact of devaluation on Pakistan's external trade: an econometric approach," *The Pakistan Development Review*, 33(4), 1205-1215

Hoekman BM and Olarreaga M. (2007), *Global trade and poor nations: The poverty impacts and policy implications of liberalization*. Washington, DC, Brookings Institution Press, eds.

Huang Y. and Temple J. (2005), "Does external trade promote financial trade?," *Discussion Paper No. 05/575,* Department of Economics, University of Bristol, United Kingdom.

Iheanacho, E. (2016), "The Impact of Financial Development on Economic Growth in Nigeria: An ARDL Analysis," *Economies* 4(26), 1-12.

Joshi V. and Little, I.M.D. (1994), *India: macroeconomics and political economy 1964-1991: (Eds.)*.World Bank, Washington, D.C.

Keindrebeogo Y. (2012), "Understanding the causal links between financial development and international trade," Universited'Auvergne, CNRS, UMR 6587, CERDI, F-63009 Clermont FD.

Kim, D, Lin S. and Suen, Y. (2010), "Dynamic effects of trade openness on financial development," *Economic Modelling*, 27, 254-261

Kletzer, K. and Bardhan, P. (1987), "Credit markets and patterns of international trade," *Journal of Development Economics,* 27, 57-70.

Lawal, A. 1. Nwanji, T. I. Asaleye, A. and Ahmed V. (2016), "Economic growth, financial development and trade openness in Nigeria: An application of the ARDL bound testing approach," C*ogent Economics and Finance*, 4, 1-15.

Leibovici F. (2013), *Financial development and international trade*. York University

Levine, R., 2005. Finance and growth: theory and evidence. In P. Aghion and S. Durlauf(eds), *Handbook of Economic Growth* (pp. 865–934). Amsterdam: Elsevier Science.

Manova, K. (2013), "Credit constraints, heterogeneous firms and international trade," *Review of Economic Studies* 80, 711–744

McKinnon, R.I., (1973), *Money and capital in economic development*. Washington, DC: The Brookings Institution.

Menyah K., Nazlioglu S. and Wolde-Rufael Y. (2014), "Financial development and economic growth in African countries: New insights from a panel causality approach," *Economic Modelling,* 37, 386-394.

Nadeem, M. Azam, M. and Islam, R., 2012. An investigation of the various factors influence on exports. *Global Journal of Management and Business Research*, 12(19),

Nnanna, O. J., (2004), "Financial sector development and economic growth in Nigeria," *Central Bank of Nigeria Economic and Financial Review, 42*, 81–104.

Oluitan, R. O. (2012), "The effect of trade components on financial development in Nigeria," *Education Research*, 3(9), 717-722.

Pesaran, H. Shin, Y. and Smith, R.J. (2001), "Bounds testing approaches to the analysis of level relationships," *Journal of Applied Econometrics*, 16, 289-326.

Pham, T. H. H. (2010), "Financial development, financial openness and trade openness: New Evidence," *FIW-Working Paper*, *No 60*, Faculty of Laws, Economics and Management, University of Rouen, France.

Ravallion, M. (2007), Looking Beyond averages in trade and poverty debate. In: Nissanke M and Thorbecke E, eds., *The Impact of Globalization on the World's Poor*. Palgrave McMillan, UNU-WIDER Studies in Development Economic and Policy

Sharma, K. (2000), "Export growth in India: has FDI played a role? Economic Growth," *Centre Discussion Paper No. 816*

Shaw, E. S. (1973), *Financial deepening in economic development*. New York: Oxford University Press.

Sinha, D. (1997), "Determinants of import demand in Thailand," *International Economic Journal*, 11:4, 73-873.

Svaleryd, H. and Vlachos, J. (2005), "Financial markets, the pattern of industrial specialization and comparative advantage: Evidence from OECD countries," *European Economic Review*, 49, 113-144.

Topalova, P. (2007), *Trade liberalization, poverty and inequality: Evidence from Indian Districts.* In: Harrison, A. (Ed.), Globalization and Poverty, Chicago, Illinois.

Topalova, P. (2010), "Factor immobility and regional effects of trade liberalization: evidence on poverty from India," *American Economic Journal: Applied Economics* 2 (4), 1–41.

Zakaria, M. (2014), "Effects of trade liberalization on exports, imports and trade balance in Pakistan: A time series analysis," *Prague Economic Papers*, 1, DOI: 10.18267/j.pep.476