THE PATTERN OF NIGERIA’S TRADE FLOWS: PRE AND POST-ERA OF COVID-19

Akamobi Obiageli Gloria  
Department of Economics, Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria.  
Email: go.akamobi@coou.edu.ng

Unachukwu Ijeoma Blessing  
Department of Economics Education, School of Arts and Social Sciences, College of Education (Technical), Umanze, Anambra State, Nigeria  
Email: ijeoma.unachukwu@fctumanze.edu.ng

ABSTRACT
The Covid-19 pandemic has triggered shocks that have disrupted the global economy, necessitating knowledge of how macroeconomic variables behave. An early analysis of the Covid-19 pandemic's macroeconomic effects in Nigeria is provided in this article. However, this study looks at the pattern of trade flows in Nigeria before and after COVID-19. The study specifically identifies the pattern of trade in the COVID-19 crisis era, determines the pattern of trade flows in developed and developing countries during the pre- and post-Covid-19 crisis era, examines the pattern of trade flows in Africa during the pre- and post-Covid-19 crisis era, and finally looks at the impact of the COVID-19 pandemic on economic growth in Nigeria. The descriptive method of analysis, Augmented Dickey-Fuller (ADF) test, Autoregressive Distributed Lag (ARDL) approach, stability and diagnostic test, as well as the behavioral pattern of the variables utilized for estimation, were used in the analysis. The data revealed that there was decrease in trade pattern during and post-era of the Covid-19 pandemic globally and in African countries (Nigeria). It was therefore concluded that unlike the pre-Covid-19 trade experience, there was increasing migration of trade to digital network in the era-and-post-Covid-19 period. The study thereby recommends digitalization of trade activities in forestalling breakdown of trade activities during the post-pandemic era. Again, as the government has engaged the Economic Sustainable Plan (ESP, 2020), which is a post-Covid-19 recovery plan, it is hoped that the attendant policies would be properly implemented so as to provide the critical mass to repositioning the country’s economy on the path towards inclusive and sustained economic growth in Nigeria.

ARTICLE INFO

Keywords:  
Trade flows, COVID-19 pandemic, economic growth, Nigeria

Article History:  
Received: 05 Nov 2022  
Accepted: 12 Dec 2022  
Available Online: 18 Dec 2022

1. INTRODUCTION

The COVID-19 universal pandemic has caused many African countries suffering from starvation and disease, limited economic funding, and under-resourced health systems (Matezo & Matondo, 2022). The Covid-19 virus outbreak in 2019 put many people and businesses at risk. Millions of people lost jobs and money. The number of new instances of the virus is still climbing, and a second wave is becoming worrying, even with new varieties (Omicron). The endemic's impact on socio-economic activity and worldwide trade patterns demands study (UNCTAD, 2020). The future pattern of trade and economic diversification determines a country's export situation. However, little attention is given on the disparity in product types exchanged between regions and countries. Developing nations with open trade tend to have more diverse export structures than those with restricted trade, according to non-parametric analysis. The pandemic's economic impact on global trade in 2020 was unparalleled. Supply and demand shocks originating in big economies quickly spread to underdeveloped regions. This led to negative economic shocks in developing countries. Historically, trade has aided economic recovery. It is believed that no country can be considered a highland in terms of the availability of products and services. As a result, international trade is extremely important, as no single country can meet all of the needs of its population and residents. In light of the fact that the trading environment is constantly changing, trade is considered to be a standard in the world economy. The modifications, on the other hand, deal with a variety of obstacles and opportunities in the formulation of appropriate policies (Shuaib, 2020). During the epidemic, the lockdown and other business closures enacted by the major economies of North America caused significant disruptions in the global market. The demand and
supply shocks were quickly communicated to developing regions through networks of commerce in commodities and services that were in place at the time. A significant amount of damage was done to the important industries such as tourism and commodities, which are the primary sources of external earnings in the majority of affluent countries.

The economic slowdown caused a major drop in commodity demand. Due to the steep drop in commodity prices, Latin American and African countries saw decreased export profits. In 2020, the UNCTAD Commodity Price Index fell by the same amount as in 2015 and 2016 (UNCTAD, 2020). Beyond 2020, service trade statistics showed a significant decline, which accelerated over time. Over the previous decade, structural cross-border trade has expanded. Currently, service trade dominates “traditional trade” in terms of travel and transportation services, financial services, audio-visuals, and business services (WTO, 2020). During the 2008/2009 Global Financial Crisis (GFC), trade was the first victim, with new trade restrictions affecting 1% of global imports. As a result, the G20 affirms their commitment to protectionism-free trade. Conversely, the WTO established trade rules to stabilize the economy and provide certainty for businesses. Despite these disagreements, the current situation calls for pledges to trade-based regulations (OECD, 2020). In the second quarter of 2020, international trade growth slowed by 13% from the previous quarters. The figures from the third quarter of 2020 suggest that global trade growth slowed slightly in the second quarter of 2020 (UNCTAD, 2020). However, this seminar probes the descriptive pattern of Nigeria’s trade flows: pre and post-era of COVID-19.

1.1 Statement of the Problem

With over 200 million people, Nigeria is Africa's largest market. It produces high-value, low-sulfur crude oil. Oil is vital to the economy. Oil contributed over 85% of export earnings and around 50% of total government income in the first quarter of 2021, up from 5.8% in the fourth quarter of 2020. The COVID-19 pandemic and falling oil prices adversely impacted Nigeria's economy and commercial operations (ITA, 2020). This budget is based on $40 crude oil production, a 379 naira to the dollar exchange rate, and a 3 percent GDP growth rate. A $2.39 billion (982.7 billion naira) extra budget was passed in July 2021 to address escalating insecurity and fund COVID-19 vaccine procurements (ITA, 2020). For Nigeria, as well as many other resource-dependent developing countries, price fluctuations in crude oil have had a significant impact on the country's economy. Crude oil accounts for more than 70% of Nigeria's GDP and 65% of total government revenue. Government spending increased as a result of the necessity to deal with the consequences of Covid-19, which increased the country's budget imbalance and made it more exposed to large public debt risks. Aside from that, the slowing of global capital flows, which has put pressure on Nigeria's foreign exchange reserve and exchange rates (KPMG, 2020), has had an impact on the country's monetary policy. Economic growth, inflation, unemployment, and exchange rates are all expected to be impacted by this situation, which will have macroeconomic ramifications.

However, the high rate of unemployment and pervasive insecurity in Nigeria. To combat the COVID-19 pandemic-induced recession, GON implemented many fiscal and macroeconomic initiatives. Several anti-disease efforts negatively impacted company activities and supply chains. Some say these steps will help the economy gradually recover. Due to declining revenue, GON has increased borrowings from overseas lenders. The Nigerian Central Bank Governor has stated that double-digit economic growth will require around 35 trillion naira ($85 billion) in infrastructure expenditure. Inflation and a lack of foreign exchange slowed economic activity (peaking at 18.7 percent in March 2021 from 11.37 percent in January 2019). However, this study probes the descriptive pattern of Nigeria’s trade flows: pre and post-era of COVID-19. Also, the study examine the effect of COVID-19 pandemic on economic growth in Nigeria.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Trade Flows

Over the last few decades, trade flows at the international border have exploded. International trade, according to Wei and Lui (2006), is the channel via which information spreads across borders. These flows are generally between developed and developing countries and they last for a set amount of time. In order to achieve significant economic growth, economies typically have longer periods of trade, which are usually tied to trade agreements, distance, and the size of the economy. The scale of the economy and geographical distance, according to Zhang and Gao (2014), boost trade flows. The only factor that determines trade flows between African countries and China, according to Diallo, Yin, Togo, and Koivogui (2017), is distance. According to Feenstra (1998), factors contributing to the significant increase in trade flows include lower transportation costs, trade liberalization, economic convergence, and an increase in the trade of intermediate goods.

2.1.2 Coronavirus (COVID-19)

As defined by the World Health Organization, Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel Coronavirus called severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2; previously known as 2019-nCoV), which was first identified during an outbreak of respiratory illness cases in Wuhan, Hubei Province, China, in April of this year (CDC, 2020). It was first reported to the World Health Organization (WHO) on December 31, 2019. The World Health Organization (WHO) declared the COVID-19 outbreak a global health emergency on January 30, 2020.
(Gallegos, 2020; Ramzy & McNeil, 2020). The World Health Organization (WHO) declared COVID-19 a global pandemic on March 11, 2020, the first time the organization has done so since declaring H1N1 influenza a pandemic in 2009 (The New York Times, 2020). The World Health Organization designated the illness caused by SARS-CoV-2 as COVID-19, an acronym that stands for "Coronavirus disease 2019." The name was chosen in order to avoid stigmatizing the virus's origins in terms of populations, geography, or animal associations, all of which are important considerations.

2.2 Empirical Literature

Bello and Gidigbi (2022) did a desk review analysis into the trade procedures utilized previous to and after Covid-19. The data showed a reduction in global and African trade trends during and after the Covid-19 pandemic in Nigeria. As a result, compared to pre-Covid-19 trade, there was an increase in trade migration to digital networks during and after Covid-19. Matezo and Matondo (2022) show the impact of Coronavirus disease 2019 on international trade. So we look into trade between Sub-Saharan African countries in Q1 2020. COVID-19 disease problem is quantified by cases and fatalities. The COVID-19 problem in exporting countries has a negative impact on trade while it has a beneficial impact in importing countries. The COVID-19 crisis has a negative influence on exports from underdeveloped countries. The COVID-19 problem in an exporter’s bordering country boosts exports. The COVID-19 problem for importers has good benefits on agricultural commerce, whereas the problem for exporters has negative implications on textile, footwear, and plastic trade.

Agarwal and Mulenga (2020) studied the influence of Covid-19 on African LDC trade. According to the findings, African LDCs should form plurilateral agreements with economically advanced trade partners to prevent further protectionist measures against LDCs during a crisis. AfCFTA can also help to strengthen regional commercial connections by fostering cooperation among African LDCs. Also, maintaining food security in African LDCs is critical in future trade negotiations. Mveyange and Mold (2020) used Kenya trade data up to May 2020 to assess the impact of the Covid-19 situation on regional commerce. It was determined that before the first quarter of 2020, Kenyan exports increased while imports decreased, resulting in a trade deficit. During the Covid-19 crisis, domestic exports soared, although not all supply chains were affected. In other words, capital goods imports fell for nearly 3 months throughout the crisis. Kenya’s re-export and intra-regional trade were also ascribed to their participation in intra-EAC trade, so implementing the African Continental Free Trade Agreement (AfCFTA) to aid trade facilitation is urgent. A similar gravity model of trade is used by Barbero, de Lucio, and Rodriguez-Crespo (2021). Our findings are based on monthly trade data from 68 countries to 222 destinations between January 2019 and October 2020. First, nations who were participants of regional trade agreements before the epidemic saw a stronger impact of COVID-19 on bilateral trade. Second, COVID-19 has a negative and severe impact on indicators relating to government actions. It is also more pronounced in countries with similar income levels. Exports between high-income countries suffer the most from the latter.

3. RESEARCH METHODOLOGY

3.1 Model Specification

In other to achieve the objectives four, which is to examine the effect of COVID-19 pandemic on economic growth in Nigeria, the model used in this study is a modification on the model of Agarwal and Mulenga (2020). The functional form of the model used in this study is specified as follows:

\[
\text{GDP}_t = f(\text{COVID}, \text{AC, CD, EXR, INF})
\]

Mathematically the model is transformed to:

\[
\text{GDP}_t = \beta_0 + \beta_1 \text{COVID} + \beta_2 \text{AC} + \beta_3 \text{CD} + \beta_4 \text{EXR} + \beta_5 \text{INF} + \mu_t
\]

The logarithm of the model is:

\[
\log \text{GDP}_t = \beta_0 + \beta_1 \text{COVID} + \beta_2 \text{AC} + \beta_3 \text{CD} + \beta_4 \text{EXR} + \beta_5 \text{INF} + \mu_t
\]

Where:

- \text{GDP}_t = \text{Growth rate of GDP}
- \text{LCOVID} = \text{Log of Total Coronavirus Cases in Nigeria}
- \text{LAC} = \text{Log of Active Cases in Nigeria}
- \text{LCD} = \text{Log of Total Coronavirus Deaths in Nigeria}
- \text{EXR} = \text{Exchange rate}
- \text{INF} = \text{Inflation rate}
- \beta_0 = \text{Constant}
- \beta_1 - \beta_5 = \text{Estimation parameters}
- \mu_t = \text{Stochastic error term}
- t = \text{Time period (February 2020 to July 2022)}

3.2 Estimation Technique and Procedure

As a contribution to existing literature, this study broadens the analytical framework by applying Autoregressive Distributed Lag (ARDL) approach for cointegration to estimate the parameters of the regression models in combination
with co-integration technique to confirm the long run relationship among the variables in the models. The Augmented Dickey Fuller (ADF) unit root test was used to hedge against spurious regression as well as heteroscedasticity test. Although there are various econometrics techniques that can be used estimate the parameters in the economic relationships based on statistical observations (Koutisyannis, 2003), the ARDL approach for cointegration was employed in this study. There are a number of reasons for adopting this approach. Firstly, the parameter estimates derived through adopting ARDL have some optimal properties (Blue Properties i.e. Best, Linear, Unbiased and Estimator). Secondly, the computational procedure of ARDL is simple compared with other Econometric techniques. Besides, the data requirements are not excessive. Thirdly, ARDL is an essential part of most other estimation techniques. In the light of the foregoing, the empirical investigation conducted in this study involves two step procedures, namely (1) Unit Root Test (Stationarity Test) and (2) ARDL approach for cointegration.

3.3 Sources of Data

The data for this study were collected from secondary sources like the publications of Nigeria Centre for Disease Control (NCDC) and Central Bank of Nigeria Statistical Bulletin. The monthly data coverage February 2020 to July 2022 was used for the empirical analysis in this study. The Nigeria Centre for Disease Control (NCDC) releases daily updates on Covid-19 cases in Nigeria. The NCDC data represents national figures on total Coronavirus Cases in Nigeria, Active Cases in Nigeria and Total Coronavirus Deaths in Nigeria since the first case of the virus was recorded. However, exchange rate and inflation are the control variables.

4. PRESENTATION AND DISCUSSION OF RESULTS

4.1 Descriptive Analysis

In order to achieve the objectives one to three, which is to determine the pattern of trade in the era of Covid-19 crisis, the pattern of trade flows in developed and emerging countries in the pre-and post-era of Covid-19 crisis, and the pattern of trade flows in Africa during the pre-and post-Covid-19 crisis era, the study is adopted as a descriptive method for science.

4.1.1 The pattern of trade flow in developed and emerging countries in the pre-and post-era of Covid-19 crisis

International trade in developed countries improved further to five-fold to about $15 trillion in 2008 in the last 20 years. But for developing countries, export growth increased faster from about $800 billion in 1990 to around $5 trillion in 2008. Most increase in trade was coined to increase in volume of existing trade flows. Nevertheless, growth at the extensive margins which was due to export of new products or exports to new markets had been very low (Brenton & Newfarmer, 2007; Amurgo-Pacheco & Pierola, 2007). In exploring economic development, countries that were able to expand their export of new products performed better as regards economic growth (Hausmann, et al., 2006). Nevertheless, it was believed that the export of new products anticipated future export potentials in a country. But a stronger repercussion for economic growth existed when shrinking demand had relatively negative effect on new export flows in developing countries (UNCTAD, 2011). In this case, the most affected goods in terms of merchandised trade in the period of the pandemic for the United States, China and the European Union were footwear, skin and leather and clothing and vehicles, which declined by about 20% (International Trade Center, 2020).

Figure 4.1 Asian Economies’ Import and Export in Values (US$’000)
Source: Authors Computation using data from ITC calculations based on UN COMTRADE and ITC statistics (2021)

The major trading partners accounted for about 64% of supply chain exports and about 63% of supply chain imports. According to ITC (2020), the global disruption of manufacturing inputs totalled $126 billion while factory shutdown in
European Union had the greatest effect on supply chain exports of other countries. The graph in Figure 3 above showed that the Asian economies experienced an increase in exports and imports in 2017, 2018 and 2019 but a drop in 2020 as a result of the pandemic. Similarly, there was a dip in trade flow in the developed economies trade as depicted in Figure 4. Subsequently, the EU which was the topmost importer of industrial inputs and exceedingly integrated into the global supply chain was the major market for Asia and Africa. It was predicted that African exporters as a result of shocks caused by factory closure in the United States, the EU and China may lose close to $2.4 billion in global supply chain exports.

Global trade increased progressively since World War II as development was accelerating over the past decades. Even in the phase of post-crisis dip, the level of gross export was three times that in the 1950s. Commodity trade accounted for a falling share of growth with the exclusion of commodity-price boom in the 1970s which was visible in 2004-2008. The growth of global trade can be ascribed to the following: improvements in regional trade; movements towards higher technology export near emerging market economies (EMEs); an increase in EMEs (IMF, 2011). The advancing roles of the global supply chain in overall trade can be attributed to the expansion of various tiers of trade. These were facilitated by communication cost, the technological-led decline in transportation and lower tariffs. On another hand, a vertical specialization that aids fragmentation of the production of certain goods into numerous stages in the most cost-effective location. This abetted the transformation of the products as goods cross several borders to be changed into final products which helped to increase trade interconnectivity. The sourcing of production phases from advanced countries has also abetted the shift in technology of export towards the latter (IMF, 2011).

Trade was confined to advanced economies in the early 1970s, especially Germany, Japan and the United States which altogether accounted for over a third of global trade. In 1990, global trade became more diversified to accommodate some EMEs, most especially from East Asia. But most surprisingly, China became the second-largest trading partners by 2010, surpassing Japan and Germany. The success of China was ascribed to openness to trade and rapid industrialization processes. Invariably in 2008, China’s trade was 57% of GDP which practically tripled the ratio of the US (IMF, 2011). Regional concentration was overtaken by global trade, which allowed exchange of goods and services with numerous countries around the world. Growth in intra-regional trade was predominantly strong in Europe and Asia, however, interregional trade was nearly unchanged at around 12% of the world GDP between 1980 and 2009 (IMF, 2011). The improvements in global and regional trade patterns were aided by three (3) major factors which are (a) Increase in vertical specialization: This is linked to the process of fragmentation of production processes. Technological advancement in transportation and communication supported the cut in the cost of oversight and management and this made different stages of production visible across countries. On another hand, low tariffs and transportation costs also facilitated movement of intermediate goods through specialization in particular stages from one country to another via the global supply chain. Therefore, growth in vertical specialisation was fast-tracked by increment at about more than 20% in 2005. (b) Convergence in the level of income: The volume of trade increases GDP when counties in the composition of their factor endowment converge in their level of income (Hummels & Levinsohn, 1995). (c) In terms of inter-industry trade, firms produce different goods at an increasing-return-to scale.

Figure 4.2 Developed Market Economies’ Import and Export in Values (US$’000)
Source: Authors Computation using data from ITC calculations based on UN COMTRADE and ITC statistics (2021)

Globally, the pandemic ignited the importance of services such as telecommunication, online supply and computer services. It also broadened the infrastructural role of financial, logistic, distribution and transport services in facilitating trade. The online services were increasing the resilience in coping with the pandemic by facilitating tele-education and
telework. This aided digital disparities and policy trials concerning online service supply. The creation of this situation was and still conducive for trade in services with diverse modes of supply which is key to recovery in the current crisis. However, in other to curtail the spread of the virus, online sales particularly by the retailers and wholesalers were the most convenient and safe in a bid to ensure social distancing. This expanded online businesses in the area of delivery and pickup services. The pandemic accelerated sales of consumer goods to online network as consumers were daily delving into the system and retailer and wholesalers were expanding their online operations. However, various challenges were faced by online retailers in the aspect of supply chain and inventory shortage which caused several setbacks and delays in delivery and cross border distribution. It was also noted that distributional sectors differ across economies due to the level of e-commerce development and lockdown policies (World Economic Forum, 2020).

4.1.2 The pattern of trade flows in Africa during the pre-and post-Covid-19 crisis era

The export structure of most developing countries had virtually remained the same and majorly concentrated on primary products. For example, the export of sub-Saharan African (SSA) countries mainly consists of metals, fuels and ores. However, there were anxieties about the increasing trend of deindustrialization in some developing countries, whereby the share of manufacturing value-added in GDP was decreasing and negatively impacting structural transformation (Söderbom, 2017). The peculiarity about Africa countries as presented in Figure 5 showed that export was drastically low compared to import in 2020. Consequently, the data for import and export in 2018 and 2019 was little lower in comparison to 2019 when the pandemic struck. Even though it peaked up in 2018 compared to 2016 and 2017 respectively. In other words, developing countries tend to import more manufactured goods to enhance productivity and as a means of technological transfer. Trade possesses the ability to contribute to production and export diversification but the rate at which the potential benefit is realized differ from one country to another. This can be ascribed to country-specific policies and initial conditions which affected trade and production performance.

![Figure 4.3 African Economies’ Import and Export in Values (US$’000)](source)

The global crisis had instigated market failure in most countries and this posed threats to international trade. This is likely to destroy the gains already made in trade over the past decades. This impact is expected to be severe compared to that in the 2008/2009 GFC as it affected aggregated supply and demand resulting in interruptions in the global value chain, most especially in trade of goods and services. In the era of the crisis, the restriction of movement and measures of social distancing led to the collapse of production activities, this generated a severe implication for consumers and producers in numerous countries as various sectors were shut down. In this case, the most affected countries were the least developing countries (LDCs) that were dependent on trade of goods and services. The major exports by Africa countries are commodities like cocoa, coffee, minerals and oil and these products face major threats in the disruption of supply chain due to low demand for export in the global markets. The general slowdown in growth across the world caused lower export earnings for major African exporters. Consequently, where most LDCs relied on inputs from developed countries, Africa’s import was over 50%, constituting transport equipment and industrial machinery from China, Europe and India at 16%, 35% and 14% respectively. But with the incidence of the Covid-19 crisis, there was an abrupt distortion in supply chains with China and Europe which led to the unavailability of intermediate and final goods (Agarwal & Mulenga, 2020). Africa countries have been undergoing growth in trade since the last few years but there was a contingent need for international trade agreements to support their growing export sectors. The ongoing crisis was an opportunity for African continents to
align with the African Continental Free Trade Area (AfCFTA) aims and objectives. This would help to make concrete efforts in harmonizing trade-related issues, reduce tariff and non-tariff barriers and control customs to foster international trade.

The pandemic also hit the LDCs who were dependent on international trade as a driver of economic growth. The low level of diversification and small domestic markets made them more vulnerable to external shocks. Trade accounted for over 53% of their GDP in 2018 in which 33 out of 47 LDCs located in Africa were severely affected due to trade-restrictive policies pronounced by numerous countries in the world (Agarwal & Mulenga, 2020). In addition, to strengthen the participation of industries situated in the LDCs region value chain, it was imperative to reduce essential goods and food supply vulnerability to make African economies resilient to future endemics and crisis. In addition, it is important to deliberate on the excessive cost and sustained trade network while venturing into future negotiations on regional or bilateral trade agreements in Africa. General restriction and export bans on virus-related products covered 73% of the world trade in May 2020. In a bid for adjustment, about 93 countries employed temporary export measures on medical products and food to ensure adequate access to essential goods (ITC, 2020). But export bans and restrictions differed from one region to another. Some African countries are attributed to the fact that they do not manufacture products related to Covid-19, so they restricted export of such goods. The products prone to export restrictions were masks with 48 measures and mask filters and 55 textile masks. Meanwhile, the World Trade was affected at 76% and 90% in the two products respectively. The share of imports of Covid-19 related goods was highest in Africa at 74% due to restrictions that varied by regions. In comparison with other regions, it was 67% in Asia-Pacific and 60% in the American regions. In order to facilitate access to food and essential material in the era of Covid-19, about 105 countries employed temporal measures on the importation of goods. While about 46% of developing countries reduced tariffs on medical products, 18% applied the policy in least developed countries but nearly three-quarters of developed countries complied (ITC, 2020).

Taking Nigeria as a case study of ECOWAS countries, the high demand for imported goods compared to locally-made goods are the main issue. As indicated in Figure 6, exports increased from 2016 to 2017, but peaked up in 2018 and 2019 due to policy implementations to regulate trade in Nigeria. But in 2020, due to the pandemic, export was very low. Import on the other hand, was high in 2016 but low in 2017 due to the introduction of Nigerian Autonomous Foreign Exchange Rate fixing (NAFEX). It then rose in 2018 and increased in 2019. But as a result of the pandemic, it rose drastically in 2020. The opportunities to tap into high scale production and export of rice are still not achievable as local rice production is still at a low scale for exportation. Contrary to this, some government officials still prefer to import rice from Brazil, India and Thailand (Depetris-Chauvin & Porto, 2014). On another hand, the similarities in the major exports of ECOWAS countries like cocoa, bovine animals, cotton, coffee, sesame and tobacco. While the exports of natural products are gold, ore, uranium, crude oil etc (Osabuohien et al., 2017). The inability of ECOWAS countries to initiate value addition in the processing of their major export within the countries result into similarities of export (Efobi & Osabuohien, 2015). This would have been an avenue to increase competitively their products and trade diversity in the global market.

![Figure 4.4 Nigeria Import and Export in Values (US$'000)](Source: Authors Computation using data from ITC calculations based on UN COMTRADE and ITC statistics (2021))

The total trade with respect to industrial exports is $59,810 million (ITC, 2020). But in the annual projections for 2020, the international supply chain was disrupted by Covid-19. The most affected sectors were: skin, leather and product thereof; wood products; metals; natural latex and rubber; miscellaneous manufactured products and other subsectors; supply chain export loss amounting to $59,810. The projected expected export loss of industrial inputs to G3 countries added up to about $36 million in which loss to China, EU and US amounted to $10 million; $25 million and $1 million
respectively. On the other hand, the projected supply chain imports loss by most affected sectors include: boats and ports, plastics and rubber; skin, leather products thereof; natural latex and rubber; wood products and other substances amounted to $284 million. Subsequently, the projected expected loss of imports of industrial output to G3 countries totalled $29 million whereby a loss of $18 million, $8 million and $2 million to China, EU and the US respectively (ITC Market Analysis Tools for Trade Statistics, 2019).

Due to import-dependent-type of country, the high concentration of imports of medical products in Nigeria made her vulnerable to shortage in supplies from the top producing countries. Out of the 46 items for screening, surveillance, clinical management and triage, 17 products were prioritized as key items by WTO Covid-19 Disease Commodity Package (DCP) to deal with the current predicament. The major items were essential items for treatment and diagnosis such as oxygen concentrator, enzymes, personal protection equipment and liquid soaps. Nevertheless, an average of 80% of Nigeria’s import made up the top three exporters. The concentration of imports was high for key products such as gloves, heavy-duty apron, protective goggles, nitrile and sterile gloves and medical gloves. Also, the major imports of medical masks, which were majorly 90% of Nigeria’s import were subjected to export restriction leading to an increase in price at about 40%. The same restrictions was also placed on drains and probes, catheters and bougies, resulting in a hike in prices of about 20% (World Bank Group, 2020). In comparison with global average, Nigeria possessed higher tariff for selected products but moderate tariff on medical products. Import restrictions were higher for hygiene and personal protective equipment while average tariff for Covid-19 medical products were at 8%. This affected the Nigerian government and their inability to respond to the crisis at an early stage. Consequently, on non-tariff measure, import license was imposed by Nigeria for medicine, ventilators and protective garments. Meanwhile, most personal protective equipment and Covid-19 products were subjected to pre-shipment inspection but imports of disinfectant and tissue paper were banned. But for safe and effective deal with current endemic, options like eliminating unnecessary import restriction, diversifying imports, streaming of non-tariff measures on Covid-19 medical goods and reducing taxes such as VAT was acted upon (Espita, et al., 2020).

The World Bank survey on Covid-19 revealed that trade was the most affected sector. This was ascribed to the fact that trade sector accounted for 33.0% of Nigeria’s GDP in 2018 which declines to 16% in 2019. The GDP in 2020 was bound to further decline as the growth rate of trade was at 0.27% in the first quarter of 2020 (AICTCR & ITRC, 2020). This result indicated a decline of about 5.09% in comparison with the first quarter of 2019. Additionally, series of total trade also decreased by 17%, quarter by a quarter from US$434.29 billion to US$28.25 billion subsequently. More importantly, imports dropped by 19.7% at a decreased rate from US$17.23 billion to US$13.83 billion in the first quarter of 2020. On another hand, exports decreased by 14.9% from US$15.74 billion in the fourth quarter of 2019 to US$13.39 billion in the first quarter of 2020 respectively. These fluctuating trade figures in combination with the global drop in the price of crude oil to as low as $11.269 explained the gloomy trade system in Nigeria (AICTCR & ITRC, 2020).

The declining trend in the Nigerian trade balance as of September 2019 was N2.8 trillion in comparison to N5.4 trillion in 2018. The trade data for the fourth quarter of 2019 indicated a trade deficit and a further fall of N2.2 trillion. This contraction was ascribed to the negative effect of Nigeria’s border closure on non-oil exports and drop in the price of crude oil export which plunged 43.9% in the fourth quarter of 2019. Furthermore, Nigeria’s trade balance crept into a trade deficit of $1.6 billion (N579 billion) in 2019 which was the first since the third quarter of 2016. These results implied that imports exceeded export in the quarters. However, the incidence of the Covid-19 pandemic led to low demand for crude oil, crude oil export was expected to fall further in 2020. Also, deficit in trade balance was expected as experienced in 2016 with enormous implications on external reserves, export earnings and government revenue (Nigerian Economic Summit Group, 2020).

In order to achieve economic resilience, borders were supposed to be opened despite diversifying destinations and origin of the market. Most of the emergency measures employed in the occurrence of the Covid-19 pandemic were classified as non-tariff measures. These addressed policy measures that influenced the flow of trade in goods and protection of human, productive safety, environmental sustainability and health. The closure of land borders and ongoing security issues before the incidence of Covid-19 was one of the impediments to growth in Nigeria. The border closure was authorized in August 2019 in a bid to address security concerns, protect domestic production and reduce smuggling. These actions caused contraction in growth in the fourth quarter of 2019, indicating the drastic slowdown in growth of trade in Africa (World Bank Group, 2020). If these policies were implemented properly, they would procure for each country social, environmental and economic gains. In addition, non-tariff policies addressed at least nine of the Sustainable Development Goals to foster economic development (United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) and UNCTAD, 2019).

4.2 Unit Root Tests Results
This study used the Augmented Dickey Fuller (ADF) test to estimate unit roots. Table 4.1 shows the result of the ADF unit root test.
Table 4
ARDL Estimated Long

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronavirus Cases in Nigeria (LCOVID)</td>
<td>-5.073580</td>
<td>3.081013</td>
<td>-1.646724</td>
<td>0.1161</td>
</tr>
<tr>
<td>Active Cases in Nigeria (LAC)</td>
<td>0.438353</td>
<td>0.695236</td>
<td>0.630511</td>
<td>0.5359</td>
</tr>
<tr>
<td>Coronavirus Deaths in Nigeria (LCD)</td>
<td>0.175234</td>
<td>4.130593</td>
<td>0.042423</td>
<td>0.9666</td>
</tr>
<tr>
<td>Exchange rate (EXR)</td>
<td>0.080686</td>
<td>0.018208</td>
<td>4.431303</td>
<td>0.0003*</td>
</tr>
<tr>
<td>Inflation rate (INF)</td>
<td>0.011151</td>
<td>0.034312</td>
<td>0.324977</td>
<td>0.7487</td>
</tr>
<tr>
<td>Growth rate of GDP (GDPG)</td>
<td>56.180786</td>
<td>19.397035</td>
<td>2.896360</td>
<td>0.0093*</td>
</tr>
</tbody>
</table>

Source: Author’s Compilation using E-views 9 Output
The derived long-run coefficients provide a measure of how responsive the amount of stock COVID-19 pandemic is to changes in economic growth, as shown in Table 4.3. The coefficient value of Coronavirus Cases in Nigeria (LCOVID) has a negative and insignificant impact on Growth rate of GDP. This means that a unit raise in Coronavirus Cases in Nigeria will result in a 507.36 percent decrease in the Growth rate of GDP. The findings of this study are consistent with the literature as the Bretton Wood institutions have projected that the GDP growth in Nigeria would fall by as high as 5.4% in the year 2020 which would most likely cause economic recession in the country during the same year (IMF, 2020; World Bank, 2020). Also, the coefficient of Active Cases (LAC) and Coronavirus Deaths (LCD) on the other hand, has a positive but insignificant impact on Growth rate of GDP. In fact, an increase in Active Cases in Nigeria results in a 254.7 percent increase in Growth rate of GDP. As a result, a 1% rise in Active Cases (LAC) and Coronavirus Deaths (LCD) will increase Growth rate of GDP by 43.84% and 17.52%. Furthermore, in Nigeria, there is a significant positive impact of exchange rate (EXR) on Growth rate of GDP in Nigeria. This means that for every unit rise in exchange rate improves Growth rate of GDP in Nigeria by 8.07 percent. Similarly, the inflation rate (INF) has a positive and insignificant impact on the Growth rate of GDP. This means that a 1% increase in the inflation rate will result in a 1.15 percent increase in the Growth rate of GDP.

Finally, the analysis discovered that the robust R-square, which indicates greater goodness of fit, is 0.755067, implying that the explanatory variables collectively explained 75.5 percent of the total fluctuations in the Growth rate of GDP. Coronavirus Cases in Nigeria (LCOVID), Active Cases in Nigeria (LAC), Coronavirus Deaths in Nigeria (LCD), Exchange rate (EXR), and Inflation rate (INF) are the explanatory variables. Since the model's explanatory power is roughly 75.5 percent of the total variation, the adjusted R² of 0.639045 indicates that it has a slightly high goodness of fit. The F-statistics of 6.508009 with a p-value of 0.000310, which shows the overall significance level of the estimate, demonstrated that the overall estimate is significant. We used the Durbin Watson test to see if there was any autocorrelation in the residual (prediction errors) from a regression analysis. However, the purpose of this test is to avoid biased results because autocorrelation might cause the standard error of the coefficient to be underestimated, and the predictors to appear significant when they are not. The Durbin-Watson statistics value of 1.872583 showed that there is no autocorrelation in the model. This means, that the residuals are not correlated and hence the model is well-behaved.

### 4.5 Short-Run ARDL-based Error Correction Model

Modeling the short-run dynamic relationship among the variables within the ARDL framework is the next step in the ARDL approach. Each variable's level and lagged are included in the short term model. The AIC criterion is used to choose the estimated model. Table 4.4 below shows the estimated CointEq(-1) or ECM1 for this model.

#### Table 4

<table>
<thead>
<tr>
<th>Short-run Coefficients based on ARDL Approach</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronavirus Cases in Nigeria (LCOVID)</td>
<td>-13.222457</td>
<td>4.742707</td>
<td>-2.787956</td>
<td>0.0117*</td>
</tr>
<tr>
<td>Active Cases in Nigeria (LAC)</td>
<td>0.511248</td>
<td>0.812009</td>
<td>0.629610</td>
<td>0.5364</td>
</tr>
<tr>
<td>Coronavirus Deaths in Nigeria (LCD)</td>
<td>0.204374</td>
<td>4.820453</td>
<td>0.042397</td>
<td>0.9666</td>
</tr>
<tr>
<td>Exchange rate (EXR)</td>
<td>0.003898</td>
<td>0.044429</td>
<td>0.087725</td>
<td>0.9310</td>
</tr>
<tr>
<td>Inflation rate (INF)</td>
<td>-0.056750</td>
<td>0.036475</td>
<td>-1.555866</td>
<td>0.1362</td>
</tr>
<tr>
<td>CoinEq(-1)</td>
<td>-1.166293</td>
<td>0.174705</td>
<td>-6.675774</td>
<td>0.0000*</td>
</tr>
</tbody>
</table>

Source: Author’s Compilation using E-view 9 Output

Note: * denote statistical significance at the 5% level.
developing countries like Nigeria due to the disruption in economic activities and level of production. This also suspended trading activities on the capital market which in turn reduced the level of capital flows globally.

The Error Correction Term (ECT) describes how quickly or slowly a relationship can be restored to its equilibrium path. CointEq(-1) is predicted to have a negative coefficient and must be statistically significant. A highly significant value demonstrates the existence of a long-term solid relationship. However, the error correction term, which has a negative sign and is between 0 and 1, validates a prior expectation with a negative sign. At the 1% level, it is statistically significant. Its negative sign (-1.166293 or 116.6 percent) indicates that if there is a shock to the economy, the long run equilibrium will be restored. The coefficient has a very high value, meaning that if the system is disrupted, it will take a very little time to regain equilibrium.

5. CONCLUSION AND RECOMMENDATIONS

The global economies witnessed an unanticipated disruption and global economic shock transmission basically through trade. Trade has been pinpointed in snowballing the effect of the Covid-19 pandemic into a global effect. If trade could be a transmitter of negative effect, then, it must be very instrumental in transmitting recovery growth. The findings from the data and charts infer that the Covid-19 crisis caused a decrease in global trade during and post-pandemic era which was also dominant in African countries (Nigeria). The pandemic aggravated the pattern of trade in terms of import and export as Nigeria was already in a fragile economic situation. Furthermore, the COVID-19 pandemic has an insignificant negative impact on economic growth in Nigeria. Government and all concerned stakeholders resulted in a reversal plan through trade, by gradually opening up their economies and ensuring entrenchment of stakeholder’s trust in the system. The pandemic shifted the global attention to digital economy as the best choice even though it has been in existence and embedded numerous advantages which creates a wide gap between developed countries with sophisticated technologies and developing countries with limited access. Nigeria, with a rising market for mobile trade due to her large population was open to opportunities for achieving the objectives of a global economy. While undergoing growth in trade for the last few years, there is a contingent need for international trade agreements to support its growing export sector. In addition, Nigerian government should invest more in digital economy to facilitate effective connectivity and easy access with policies to support online businesses and transactions as this method is more effective in the post-Covid-19 era. Also, internet facilities should be made available and subsidized to ease connectivity and access to sustainable digital economy in future. The study has therefore shown that the Covid-19 pandemic has insignificant negative impacts on GDP growth in Nigeria. In other words, time is required before the established correlations withstand empirical scrutiny in terms of causality. As the government has engaged the Economic Sustainable Plan (ESP, 2020), which is a post-Covid-19 recovery plan, it is hoped that the attendant policies would be properly implemented so as to provide the critical mass to repositioning the country’s economy on the path towards inclusive and sustained economic growth in Nigeria.

6. REFERENCES


