Impact of COVID-19 Pandemic on Nigerian Exports

Uchendu Winifred Chinyere

Nile University of Nigeria
Abuja, Nigeria
211328001@nileuniversity.edu.ng

Osman Nuri Aras

Tishk International University
Erbil, Iraq

Abstract
The paper set out to evaluate the impact of the COVID-19 pandemic on Nigerian exports. The Coronavirus was first detected in Wuhan, China but it quickly spread around the world and was declared a global pandemic on 11th March 2020 by the World Health Organization (WHO). Various disruptive preventive public health policies were rolled out to control its spread. These policies and the severity of the negative health effects of the virus affected the global economic activities including Nigeria adversely. Using an Ordinary Least Square (OLS) regression and variation analyses, the paper found that the pandemic impacted negatively on total exports but more significantly on crude oil exports and less on non-crude oil and non-oil exports. The results reinforce the generally held view that Nigeria needs to diversify its exports away from crude oil so as to minimize the impact of negative external shocks on Nigerian exports and economy.

Keywords: Exports, International trade, COVID-19 pandemic, Nigeria.

JEL Classification Codes: F10, I10.
1. Introduction

The Coronavirus which was officially reported in Wuhan, China in December 2019 quickly transmitted round the world, disrupting economic activities as lockdowns were imposed by countries to curtail its spread and loss of life. In response to the devastating impact of the disease, the World Health Organization (WHO) designated it as a public health emergency of international concern on 30th January 2020 and later as a global pandemic on 11th March 2020. The world economy has been adversely affected since the incidence of the Covid-19 pandemic in 2019. Prior to the pandemic, the Nigerian economy had been underperforming due to negative effects of insecurity, falling oil prices, border closure and low fiscal receipts. Consequently, gross domestic output declined as unemployment and inflation rate rose. The arrival of the pandemic in Nigeria exacerbated the prevailing economic condition as the GDP growth rate declined from 2.55% in 2019 Q4 to 1.87% and -6.1% in 2020Q1 and 2020Q2, respectively. The economy started to recover gradually from -3.62% in 2020Q3 to 0.11%, 0.51%, 5.01% and 4.03% in 2020 Q4, 2021Q1, 2021Q2 and 2021Q3, respectively.

Despite the roll out of various preventive public health policies such as requirement for injections, use of face mask and restrictions on public assembly, the global economy has not much rebounded as a result of mutating nature of the virus which disrupts economic activities and the global supply chain. The World Bank indicated that the global annual GDP growth rate declined from 2.602% in 2019 to -3.363% in 2020 as a result of the pandemic. The International Monetary Fund (IMF) World Economic Outlook in October 2021 projected that the global economy would grow by 5.9% and 4.9% in 2021 and 2022, respectively.

As of January 6th, 2022, John Hopkins Coronavirus Resource Center reported 300,367,306 global confirmed cases of the Covid-19 virus and 5,473,846 global deaths. The advent of the fast spreading Omicron variant has raised more uncertainty on the direction of the world economy in 2022 and beyond.

According to the United Nations Conference on Trade and Development (UNCTAD), the effect of the pandemic on trade is expected to be severe. World Trade Organization (WTO) (2020), estimates indicate a contraction in international trade especially in sectors with complex value chains, particularly electronics and automotive products. The drop in real exports of agricultural
products could vary between 6.5 percent and 12.7 percent, while that of fossil fuels range between 5.5 percent and 13.4 percent.

This paper investigates the impact of the Covid-19 pandemic on Nigerian exports, covering crude oil, agricultural, manufactured, minerals and food products exports. Apart from the introductory section, the rest of the paper is structured as follows: Section 2 gives an overview of the trends in Nigerian exports prior to and during the pandemic, followed by literature review in Section 3. Methodology and data analysis are discussed in Section 4 while the Empirical results are presented in Section 5. The discussion of the results is examined in Section 6. Section 7 concludes the paper with policy recommendations.

2. Overview of Nigerian Exports (2018-2021)

According to the National Bureau of Statistics (NBS), Nigeria merchandise trade grew as imports increased significantly while exports rose marginally resulting in unfavorable trade balance in third quarter of 2021. Specifically, total trade increased by 10.43% in 2021 Q3 compared to 2021 Q2 and 58.59% year-on-year. As a result, imports value stood at N8,153.79 billion in 2021 Q3 which is 17.32% higher than 2021 Q2 and 51.47% more than the corresponding period of 2020.

During the review period, total exports amounted to N5,130.30 billion in 2021 Q3, representing a 1% increase over the preceding period of 2021 and 71.38% over 2020Q3. While agricultural exports declined by 5.9% compared with the preceding quarter, raw materials and solid minerals exports increased by 135.2% and 22.7% in 2021Q2, respectively and 1,241% and 222.8% in 2020Q3, respectively. Manufactured goods exports declined by 39.4% in 2021Q3 compared to 2021Q2 and 121.6% higher compared to 2020Q3. Similarly, crude oil exports declined by 1.3% in 2021Q3 from its value in 2021Q2 but was 66% higher when compared with 2020Q3. However, other oil products exports rose by 3.6% when compared to 2021Q2 and 57.8% higher than 2020Q3 showing a further recovery from the incidence of the 2020 COVID-19 pandemic.

The structure of the Nigerian exports in 2021 Q3 is dominated by crude oil (78.48%) followed by other petroleum oil products (10.87%), manufactured goods (5.7%), raw materials goods (2.94%), agricultural goods (1.55%), solid minerals goods (0.36%) and energy goods (0.06%). Nigerian’s
main exports destination in 2021Q3 are India (14.78%), Spain (12.22%), Italy (8.68%), France (7.08%) and Netherlands (4.73%) accounting for 47.5% of total exports during the period.

On annual basis, Nigeria’s exports free on board (FOB) rose from N18,532,039.98 million in 2018 to N19,192,234.12 million in 2019 but declined to N12,522,684.44 million in 2020 as a result of the Covid-19 pandemic before partially recovering to N13,526,942.54 million by September 2021. During those years, exports contributed 58.47%, 53.09%, 38.63% and 37.40% of total trade while crude oil exports made up of 81.78%, 76.54%, 75.42% and 76.50% of total exports in 2018, 2019, 2020 and up to September 2021, respectively. From the trend of the data, it is clear that the fall in exports in 2020 from 53.09% in 2019 to 38.63% and 37.40% respectively in 2020 and 2021 could have resulted from the incidence of the Covid-19 pandemic in those years.

On a quarterly basis, table 1 shows the percentage of exports in total trade which fluctuated from 53.43% in 2019Q4 to 47.14%, 48.07%, 34.90%, 35.74%, 35.03% 29.77%, 42.22% and 38.62% in 2020Q1, 2021Q2 and 2021Q3, respectively. This highlights more clearly the impact of the Covid pandemic on exports, other things being equal.

To understand the fall in exports during the period, it is very relevant to highlight how Nigeria’s major export markets were affected by the pandemic during the period. The top ten (10) destination countries for Nigeria’s exports which constitute 67.25% of total exports, are shown in Table 1. A cursory view of the table shows that the Corona virus pandemic was severe in those export markets which could have explained the observed fall in Nigeria’s exports to those countries.

**Table 1:** Nigeria’s Major Exports Destination and Values (2021Q3); and their confirmed cases of COVID-19 Incidence as of 27 December 2021.

<table>
<thead>
<tr>
<th>No</th>
<th>Country of Destination</th>
<th>Total Exports Value (Nm)</th>
<th>Crude oil Value (Nm)</th>
<th>NON-Crude Oil Value (Nm)</th>
<th>Covid-19 Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>758,135.55</td>
<td>703,261.78</td>
<td>54,873.77</td>
<td>34,793,333</td>
</tr>
<tr>
<td>2</td>
<td>Spain</td>
<td>627,009.12</td>
<td>544,594.48</td>
<td>86,414.64</td>
<td>5,718,008</td>
</tr>
<tr>
<td>3</td>
<td>Italy</td>
<td>446,036.96</td>
<td>442,116.43</td>
<td>3,920.52</td>
<td>5,647,313</td>
</tr>
<tr>
<td>4</td>
<td>France</td>
<td>363,229.18</td>
<td>233,745.93</td>
<td>129,483.24</td>
<td>8,866,364</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>242,485.60</td>
<td>226,799.04</td>
<td>15,686.55</td>
<td>3,065,010</td>
</tr>
<tr>
<td>6</td>
<td>United States</td>
<td>229,334.32</td>
<td>199,549.91</td>
<td>29,784.41</td>
<td>51,696,204</td>
</tr>
<tr>
<td>7</td>
<td>Indonesia</td>
<td>208,257.69</td>
<td>197,603.45</td>
<td>10,654.24</td>
<td>4,261,879</td>
</tr>
<tr>
<td>8</td>
<td>Canada</td>
<td>204,797.41</td>
<td>202,033.36</td>
<td>2,764.04</td>
<td>1,945,754</td>
</tr>
</tbody>
</table>
9. Ivory Coast 187,062.28 182,793.90 4,268.38 63,847
10. Portugal 183,596.69 117,897.11 65,699.57 1,279,785

Source: Export data (National Bureau of Statistics); Covid-19 data (WHO).

3. Literature Review

The Covid-19 pandemic, though a recent phenomenon, has generated volumes of literature in different aspects of life depending on the angle the author is investigating. In this particular case, we are interested in investigating the impact of the Covid-19 on exports, especially in the case of Nigeria.

Dushime & Osele (2021) highlighted the impact of the pandemic on the Nigerian economy sectorially with and detailed its implications and recommendation for tax revenue generation. The paper concluded that the pandemic has led to a sharp drop in the country’s GDP growth and emphasized the need to diversify the economy away from oil and mobilize tax revenue in order to achieve sustainable economic development and growth. In their assessment of the pandemic outbreak on the Nigeria economy. Onyekwena & Ekeruche (2020) discussed how the pandemic affected the components of aggregate demand, noting that consumption investment and net exports are declining while only government expenditure is increasing in its effort to mitigate the economy. They emphasized specifically that the restrictions on movement of people border closures as well as disruption of global supply chains may have led to the decline in exports. The authors reemphasized the need in the longer term to diversify the country’s revenue base away from oil exports and improve investments in the health care sector.

Bello & Gidigbi (2021) attempted to investigate the effect of trade on economic growth in Nigeria during the pandemic. The authors reviewed the trends in trade (Import and Exports), economic growth and other economic variables, without parametric analysis and concluded that the pandemic has negative impact on trade and economic growth.

Chabossou, Nonvide, Lokonon, Amegnaglo, & Akpo (2022) investigated the effect of the Covid-19 pandemic on the performance of exporting companies in Benin Republic and the factors responsible for the perceived outcome. Using survey data from 122 micro and medium scale industries, they computed the annual rate change in quarterly turnover to capture the effect of the Covid-19. Furthermore, they used multiple regression analysis to identify the factors explaining
the effects. The results of their analysis show that the COVID-19 pandemic had a negative effect on the performance of exporting firms in Benin Republic as their quarterly turnover in 2020 dropped by an average of 53.308 percent.

On their part, Wei, Jin & Xu (2021) used both monthly time series data and cross-country data (January 2020–December 2020) to investigate the impact of the COVID-19 pandemic on exports and imports in China, Japan and South Korea. Using industrial production, trade openness, government response (including monetary and fiscal intervention), as explanatory variables they found that domestic epidemic in those countries had no statistically significant effect on imports. However, the pandemic had negative correlated with exports in Japan, but positively correlated with exports in China and South Korea. According to the authors, the early control of the pandemic in China by April 2020 resulted in positive 1.9 percent growth in imports and export by volume in merchandise trade but also increased its share of global exports to a record high of 14.2 percent during the period. The author acknowledged that short time series (12 observation) could have affected the accuracy of their estimation and results.

Fugazza (2020) presented a preliminary assessment of the impact of the coronavirus pandemic on commodities, exports to China with a focus on exports from Commodity Dependent Developing Countries (CDDCs). The results of the study indicated that total commodities exports to China were declining though with weaker impact on growth rate, while energy products (e.g., crude petroleum) and ores (iron ores) are expected to have strong negative demand impacts, those of fruits and nuts, soya beans, rice and copper are expected to increase above per-COVID-19 pandemic era. Similarly, the difference in import demands shocks at the product level would also lead to differences in effects at the country level. Thus, even though most countries are expected to be negatively affected, some might see a surge in their exports to China.

Arriola, Kowalski & Van Tongeren (2021) analysed the impact of the Covid-19 pandemic on regional spread and structure of global international trade in 2020. The paper found that both the direction of trade and composition changed as a result of the pandemic. However, the impact was not uniform but varied from one region to other. Because the authors observes that the changes are likely to be short term to long-term, and carries negative impact on the economy, they concluded that stakeholders should put in place policy measures to reduce those negative impacts.
Sivalingam and Sualeha (2021) evaluated the effect of the pandemic on India’s export of services and then gave an overview of the opportunities, challenges and way forward for the country. The review found that there were significant decline in export of services but lower than other competitors. They concluded that the country should provide incentives to exporters of services, especially, those engaged in digital services.

Morgan, Awafo & Quartey (2021) examined the effect of the pandemic on the World economy and found that it adversely impacted all aspects of the economy. They recommended that global stakeholders should initiate policies that would ameliorate the negative effects of the Covid-19 currently and the near future on all the field of human endeavor. Idris & Oruonye (2020) used analytical approach to investigate the socioeconomic impact of the pandemic in Nigeria. The paper found that practically, the Covid-19 pandemic affected all aspects of economic activities. They advised government to broaden their revenue base and guard against future financial turbulence.

Verschuur, Koks & Hall (2021) applied real time shipping information to ascertain the observed impact of the Covid-19 pandemic on world trade. By comparing the data before and after the inception of the effect the pandemic, they inferred that the transmission of the effect of the pandemic were not instantaneous but could have been delayed by rigidities by the shipping supply chain. Kucera & Leung (2020) discussed the effect of the pandemic on global trade and employment especially on developing countries and stated that impact of the covid-19 will be more in 2020 but will start moderating in 2021. The authors elaborated on a broad policy strategy designed by ILO to combat the negative effect on employment.

Gondwe (2020) assessed the effect of the COVID-19 on Africa’s economic development. The author found that the continents economic activities and export will decline by 1.5% and 5%, respectively. The paper recommended regional coordination of mitigating policies, debt forbearance and international assistance as ways to ensure economic revival. Hayakawa and Mukunoki (2021) studied the metamorphosis of the impacts of the pandemic. Using monthly global trade data (January–August 2019 & 2020), they estimated a gravity equation. Their main findings are as follows: the pandemic strongly and negatively affected exporting and importing countries; the effect on importing countries receded from July 2020; and the impact of the Covid-19 varied for different industries.
United Nations UN ECLAC (2020) examined the impacts of the pandemic on international trade with particular emphasis on the Latin America and Caribbean Sub region. The report found that world trade fell sharply because of disruption of global value chain, while the regional trade declined by 17% in the first five months of 2020 in relation to the corresponding period of 2019, resulting from supply and demand shocks. They concluded by stressing the need for further regional integration.

Berthou & Stumpner (2022) quantitatively investigated the effects of lockdowns on international trade during the inception of the Covid-19 in 2020 which made countries to introduce measures to limit the spread of the pandemic. Their investigations show that exports dropped more sharply in countries with severe lockdown. They concluded that the effect of the restrictions on trade weakened as the pandemic progressed.

In addition to Berthou & Stumpner, Socrates & Lashitew (2021) also analysed the effect of lockdown measures on international trade drawing evidence from Kenya. Using event study approach, they found that while export rose marginally imports went down as a result of closures and restrictions by Kenya trading partners. Greenville, McGilvary & Black (2020) analysed how Australian agricultural trade responded to the impact of the coronavirus pandemic, by examining agricultural data. Their findings indicate that generally, exports of agricultural products remained buoyant as import of agricultural inputs were not affected. They identified growing protectionism as potential threat to Australian agricultural trade and suggested that diversifying the supply chains would help in mitigating some of the risks.

Using the BACI data set and government trade data, Thammachote & Trochim (2021) investigated the effect of the pandemic on agricultural exports from Thailand. The study found a heterogeneous impact of the Covid-19 across Thai agricultural export products, but the effect was not long-lasting. Furthermore, the COVID-29 exposed the risk of dependence on few export products and therefore suggested the need for product diversification to minimize further risks.

Park & Park (2020) analysed the macroeconomic effects of the coronavirus on the Korean economy. The study conducted empirical analysis using Flex-IO and forecasting approaches. Their results showed that while agriculture and tourism were negatively affected, ICT sector growth remained stable.
Ganaie (2020) investigated how the Covid-19 impacted on global trade and the opportunities it presented to SME in Pakistan. The study found that the pandemic negatively affected the economy resulting in fiscal and monetary policy responses by the authorities. The author recommended that government should intensify efforts to ensure trade flows to ameliorate the negative effects on the economy and the SMEs in particular.

Zainuddin, Khairuddin & Hamidi (2020) examined the effects of the COVID-19 on Malaysia’s bilateral export using panel data in a gravity model. Their paper showed that increasing cases of the pandemic among trading partners raised the demand for more export, especially capital and consumption products to those countries. The authors encouraged government to pursue policies that will make certain that local producers can outlive ongoing pandemic. Rohmi, Jaya & Syamsiyah (2021) investigated the impact of the COVID-19 on Indonesia’s international trade employing paired sample T-test technique. The methodology compares conditions prior to and after the coronavirus event. The authors found that the pandemic negatively affected their international trade through oil and gas export as well as imports of raw material and capital.

Beyene, Ferede & Diriba (2020) analysed the possible nationwide economic effects of the pandemic using a CGE Model. The results of the study show a significant negative effect on economic growth. The authors therefore recommended that the recovery and response plan should be robust to mobilize and diversify local sources of receipts.

Ustinova & Woody (2020) assessed the impact of the pandemic on Brazilian agricultural sector. They found that the economy declined due to widespread impacts of the pandemic. However, they indicated that the rapid devaluation of the domestic currency increased the demand for Brazilian Agricultural exports and concluded that the agricultural sector in general is well positioned to survive the pandemic.

4. Methodology and Data Analysis

Quarterly and monthly secondary data on Nigerian export covering 2018 – 2021 were collected from the National Bureau of Statistics (NBS) database, Q3 2021 Foreign Trade Statistics – Tables.xlsx.
The short time frame of the occurrence of the pandemic (December 2019-present) may not allow for a robust econometric parametric analysis using quarterly data. To overcome this challenge, the study used high frequency monthly data to estimate the impact of the pandemic on Nigerian exports.

4.1. The Model
The first approach used in this study to investigate the effect of the COVID-19 pandemic on Nigerian exports as earlier stated is to carry out a time series analysis to estimate the impact of the pandemic on total export and its components.

Assuming holding other factors constant, we expect total export to be a function of confirmed global cases of the Covid-19:

Total Exports = f (global confirmed cases of Covid-19)

The linearized functional forms of the equations to be estimated are:

Log (TEXP) = a0 + a1Log (GCO) + u1..............................(1)
Log (CEXP) = b0 + b1Log (GCO) + u2..............................(2)
Log (NCEXP) = c0 + c1Log (GCO) + u3..........................(3)
Log (NOEXP) = d0 + d1Log (GCO) + u4............................(4)

where:
TEXP    = Total Export
CEXP    = Crude Oil Export
NCEXP   = Non-Crude Oil Export
NOEXP   = Non-Oil Export
GCO     = Global Covid-19 Cases
a0-d1   = Coefficients to be estimated
u1-u4   = Stochastic error term
a1, b1, c1, d1 < 0
In addition, the study adapted Chabossou (2021) method of analysis. In estimating the effect of the COVID-19 pandemic on the performance of the exporting companies in Benin Republic, Chabossou estimated the variation of the turnover and calculated the quarterly rate of change in companies’ turnover. The effect of the pandemic on the performance of the exporting company is captured through the percentage drop in turnover thus:

Rate of Change in Turnover = \((T_t - T_{t-1})/T_{t-1} \times 100\)  \(\ldots \ldots \ldots \ldots (5)\)

where \(T_t\) = Turnover at time, \(t\)

In this study, we assume the turnover to be the value of the export per quarter to be \(\text{EXPT}_t\) where \(t = \text{quarter}\)

Hence,

Rate of Change in Exports = \((\text{EXPT}_t - \text{EXPT}_{t-1})/\text{EXPT}_{t-1} \times 100\)  \(\ldots \ldots \ldots \ldots (6)\)

Using Equation 6, the percentage changes in exports are calculated and presented in Table 2. The trend from 2018 Q1 to 2021 Q3 is shown in Figure 1.

By comparing the trend of exports before and after the start of the pandemic, we can draw inference on the impact of the Covid-19 on Nigerian export.

5. Empirical Results

Equations 1-4 were estimated using Ordinary Least Square (OLS) with monthly data from December 2019 to September 2021. The results of the analysis are presented in Equation 1-4.

5.1. Regression Results for Equations 1-4

The results of Equation 1 below implies that there is no significant relationship between the Global Covid-19 cases and Total exports.

**Equation 1:**

|        | Estimate | Std. Error | t value | Pr(>|t|)   |
|--------|----------|------------|---------|------------|
| (Intercept) | 14.32    | 0.2801     | 51.13   | 1.123e-22  * * * |
| GCOI   | -0.02499 | 0.02009    | -1.244  | 0.2279     |

*Fitting linear model: \(\text{TEXPl} \sim \text{GCOI}\)*

<table>
<thead>
<tr>
<th>Observations</th>
<th>Residual Std. Error</th>
<th>(R^2)</th>
<th>Adjusted (R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>0.3206</td>
<td>0.0718</td>
<td>0.02539</td>
</tr>
</tbody>
</table>
The results of Equation 2 below indicates that there is no significant relationship between Global Covid-19 cases and Crude-oil exports.

Equation 2:

|          | Estimate | Std. Error | t value | Pr(>|t|)   |
|----------|----------|------------|---------|------------|
| (Intercept) | 13.96    | 0.3166     | 44.1    | 2.114e-21  |
| GCOI      | -0.01889 | 0.02271    | -0.8317 | 0.4154     |

Fitting linear model: CEXPl ~ GCOI

Observations | Residual Std. Error | $R^2$ | Adjusted $R^2$ |
-------------|---------------------|-------|----------------|
22           | 0.3624              | 0.03343 | -0.0149 |

The results of Equation 3 below shows that there exists a significant relationship between Global Covid-19 cases and non crude-oil exports.

Equation 3:

|          | Estimate | Std. Error | t value | Pr(>|t|)   |
|----------|----------|------------|---------|------------|
| (Intercept) | 13.2     | 0.285      | 46.32   | 7.985e-22  |
| GCOI      | -0.04718 | 0.02044    | -2.308  | 0.0318     |

Fitting linear model: NCEXPl ~ GCOI

Observations | Residual Std. Error | $R^2$ | Adjusted $R^2$ |
-------------|---------------------|-------|----------------|
22           | 0.3262              | 0.2104 | 0.1709 |

There is a significant relationship between Global Covid-19 cases and Non-oil exports as shown on Equation 4 below.

Equation 4:

|          | Estimate | Std. Error | t value | Pr(>|t|)   |
|----------|----------|------------|---------|------------|
| (Intercept) | 12.91    | 0.4498     | 28.7    | 9.98e-18   |
| GCOI      | -0.08653 | 0.03227    | -2.682  | 0.01433    |

Fitting linear model: NOEXPl ~ GCOI

Observations | Residual Std. Error | $R^2$ | Adjusted $R^2$ |
-------------|---------------------|-------|----------------|
22           | 0.5149              | 0.2645 | 0.2277 |

Table 2 below shows the results from the second method of analysis as discussed in the methodology.
Table 2: Percentage Changes in Exports, Non-Crude Oil Exports and Non-Oil Exports (2018Q1-2021Q3)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Quarter</th>
<th>% Change Total Export</th>
<th>% Change Crude Oil Export</th>
<th>% Change Non-Crude Oil Export</th>
<th>% Change Non-Oil Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2018 Q1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Q2</td>
<td>-4.57</td>
<td>5.29</td>
<td>-35.54</td>
<td>-62.15</td>
</tr>
<tr>
<td>3</td>
<td>Q3</td>
<td>7.76</td>
<td>10.03</td>
<td>-3.86</td>
<td>-25.33</td>
</tr>
<tr>
<td>4</td>
<td>Q4</td>
<td>-8.18</td>
<td>-11.7</td>
<td>12.51</td>
<td>42.48</td>
</tr>
<tr>
<td>5</td>
<td>2019 Q1</td>
<td>1.78</td>
<td>-7.78</td>
<td>45.78</td>
<td>245.9</td>
</tr>
<tr>
<td>6</td>
<td>Q2</td>
<td>1.38</td>
<td>16.57</td>
<td>-42.9</td>
<td>-71.71</td>
</tr>
<tr>
<td>7</td>
<td>Q3</td>
<td>15.02</td>
<td>-4.79</td>
<td>132.89</td>
<td>374.55</td>
</tr>
<tr>
<td>8</td>
<td>Q4</td>
<td>-9.79</td>
<td>-3.16</td>
<td>-25.92</td>
<td>-43.85</td>
</tr>
<tr>
<td>9</td>
<td>2020 Q1</td>
<td>-13.85</td>
<td>-18.86</td>
<td>2.09</td>
<td>2.9</td>
</tr>
<tr>
<td>10</td>
<td>Q2</td>
<td>-45.86</td>
<td>-47.23</td>
<td>-42.33</td>
<td>-43.44</td>
</tr>
<tr>
<td>11</td>
<td>Q3</td>
<td>34.54</td>
<td>56.04</td>
<td>-15.36</td>
<td>-39.04</td>
</tr>
<tr>
<td>12</td>
<td>Q4</td>
<td>6.72</td>
<td>3.98</td>
<td>18.37</td>
<td>12.14</td>
</tr>
<tr>
<td>13</td>
<td>2021 Q1</td>
<td>-8.99</td>
<td>-23.46</td>
<td>45.2</td>
<td>80.46</td>
</tr>
<tr>
<td>14</td>
<td>Q2</td>
<td>74.72</td>
<td>111.32</td>
<td>2.44</td>
<td>6.3</td>
</tr>
<tr>
<td>15</td>
<td>Q3</td>
<td>1</td>
<td>-1.28</td>
<td>10.28</td>
<td>18.02</td>
</tr>
</tbody>
</table>

*Source:* Calculated by the Author from Table 1: Summary of Foreign Trade (N Million) Q3 2021, National Bureau of Statistics.

The effects of the different waves of the pandemic have contributed to the observed movements shown in Figure 1. Anti-cyclical movements between quarterly percentage crude oil exports and non-oil exports were observed but had existed prior to and during the COVID-19 pandemic in the Nigerian case. However, this was more pronounced in the first half of 2020 at the on-set of the pandemic. In all, it can be seen that the pandemic has a negative effect on total exports, declining most by -9.79%, -13.85% and -45.86% during the first wave of the pandemic, driven mainly by losses in crude oil exports (-3.16%, -18.86% and -47.23% in 2019Q4, 2020Q1 and 2020Q2.
6. Analysis of Results

Generally, the results of the regression analyses followed expectations as the four specifications indicated that exports have negative relationship with the pandemic during the study period. However, these relationships were only significant for non-crude oil and non-oil exports. The high significance of the constant terms and low adjusted $R^2$ are expected as there are many important omitted variables (factors) that affect the demand for export other than the COVID-19 pandemic.

Overall, the model focused on exploring the export pandemic relationship rather than the determinants of export in Nigeria, it should also be acknowledged that the COVID19 pandemic is a recent phenomenon such that current studies are preliminary subject to future validation, these notwithstanding, the pandemic has negative impact on export in Nigeria.

The results of the second approach of analysis show that the COVID pandemic also had a profound negative impact on Nigeria’s exports. However, the impact was not all in the same direction for the components except on few occasions when crude oil exports declined, non-crude oil and non-oil exports increased most of the time.
Table 2 shows the quarterly percentage changes in exports and its components (non-oil crude oil exports and non-oil exports) between 2018Q1 and 2021Q3.

As can be seen on Table 2, total exports fluctuated upwards to 15.2% in 2019Q4 to -13.85% and -45.86%, respectively in 2020Q1 and 2020Q2. Thereafter, total exports rose to 34.54% in 2020Q3, declined to -8.99% in 2021Q1, rose to 74.72% in 2021Q2 and finally declined to 1.00% in 2021Q3.

7. Conclusion and Policy Recommendations

The study investigated the impact of the covid-19 pandemic on the Nigeria’s exports covering the period 2018Q1-2021Q3. Using regression analysis and comparing the pre-pandemic and post-pandemic periods, it was found that the COVID-19 pandemic negatively affected the exports. However, the pandemic was more effective in curtailing crude oil imports than non-oil exports which it impacted more positively.

While the pandemic is still ongoing and is in the fourth wave, it is very clear that the pandemic has more and negative effect on crude oil exports than non-oil exports during the study period. By implication, there is need to diversify the country’s exports away from crude oil to protect Nigeria’s exports from negative external shocks. Specifically, government should not only strengthen the public health sector, reduce insecurity, remove policy barriers to exports, encourage private sector participation in the non-oil export sector but build sustainable and optimal infrastructure to attract both domestic and foreign investments.

References


