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Macroeconomic Outlook Update for 2020:
COVID–19, Global Oil Price and the Nigerian Economy

NESG RESEARCH

Abstract

The global economy started the year 2020 with hopes of gradually reducing trade tensions reflected by a partial trade deal reached by the United States and China. The IMF earlier projected that global GDP would expand by 3.3% in its World Economic Outlook for 2020 released in January. Meanwhile, the world was caught unawares by the sudden outbreak of COVID-19 in Wuhan City of China and its rapid spread to the rest of the world. Against the huge economic damage brought about by the viral infection, the IMF's revised growth forecasts showed that the global economy would contract sharply by -4.4% in 2020. The Fund also downgraded its growth projections for major advanced economies and emerging markets to negative territory. Consequently, the Nigerian economy was hardly hit by the twin crisis of health shocks and pandemic-induced decline in crude oil prices. The IMF expects the economy to contract by -4.3% in 2020. In this article, we present a review of the global economy as well as the Nigerian economy in the wake of COVID-19 pandemic. Specifically, we revised our growth projections for the Nigerian economy in 2020. In our worst scenario, we estimated that the economy will contract by -7.3% in 2020.

Introduction- Review of the Global Economy

The outbreak of COVID–19 in China dampened its economic outlook for the year 2020. Efforts to contain the spread of the virus has led to widespread movement restrictions and shutdown of industrial activities. The effect is evident in China's Manufacturing Purchasing Managers' Index (PMI), which slipped into negative territory at 35.7 points in February 2020. This implies the growth figure that will emanate from China will significantly contract and therefore affect the global economy. The regimented movement of humans due to fear of contagion and the inability to secure vaccine continue to dampen economic activities. For the first time since 1992, the economy of China recorded negative growth in Q1'2020 at -6.8% down from 6.4%

in the corresponding period of 2019 and 6% the previous quarter (Q4'2019). However, China is no longer the main concern regarding COVID-19. In the last few months, the United States (US) and some countries in Europe have recorded a higher number of confirmed cases and deaths. Most of these countries have implemented movement restrictions, lockdowns, among other measures, to contain the spread of the virus. These measures will hurt global economic growth in 2020. Advanced economies led by the United States will be largely responsible for the significant decline in global Gross Domestic Product (GDP) in 2020 as a result of the COVID-19 pandemic. The International Monetary Fund (IMF) projected global GDP to decline by 4.9%,

with countries such as the United States, Germany, United Kingdom and Italy recording significant output decline of 8%, 7.8%, 10.2% and 12.8%, respectively in 2020. In Q1'2020, the US has posted a GDP contraction of -4.8 percent relative to 3.1% in the same period last year and 2.1% in Q4'2019. Likewise, the European Union (EU) has reported slightly lower contraction of -2.7%, compared with economic expansions at 1.7% and 1.3% in Q1'2019 and Q4'2019 respectively.

Meanwhile, emerging markets continue to feel the heat of the global pandemic. The economies of emerging markets and developing countries expanded by 3.7% in 2019, much higher than the global growth of 2.9%. Growth was largely driven by China and India, which recorded significant expansions at 6.1% and 4.2%, respectively, in 2019. With the outbreak of the virus, economic activities in emerging and developing countries have been subdued due to lockdowns, movement restrictions, lower foreign investment inflows and declining commodity prices, for those that rely on commodities exports. Subsequently, the IMF downgraded growth outlook for emerging and developing countries to -3% in 2020, from an earlier projection of -2%. Countries such as Nigeria, South Africa, Brazil, Mexico and Russia are projected to record negative growth rates in the year 2020. The manifestation of the impact of the pandemic is evident in the commodity market. Being the second largest economy and consumer in the world, an economic slowdown in China means a significant decline in the demand for commodities. Particularly, the oil market has been badly hit. WTI and Brent oil prices plummeted by 35.8% and 37% to US$40.8 and US$41.2 per barrel, respectively on June 30, 2020, from their levels in the beginning of the year.

Nigerian Economy in Challenging Times
The economy is expected to contract in 2020
The outbreak of the coronavirus pandemic with its attendant restriction on economic activities and severe impact on the oil market is set to reverse Nigeria's growth of 2.3% achieved in 2019. Already in the first quarter of 2020, the effect of the pandemic and the slump in crude oil price is evident on Nigeria's Purchasing Managers' Index (PMI), which tracks the performance of the business aspect of the economy. The Manufacturing PMI fell further to 41.1 points in June 2020, after slipping into the negative region in the previous month from an expansion of 51.1 points in March 2020. On the other hand, the non-manufacturing sector contracted as its PMI slid to 35.7 points in June 2020 from 49.2 points recorded in March 2020. This suggests a weaker growth in the second quarter of 2020. As expected, the Nigeria economy contracted sharply by 6.1% in the second quarter of 2020 relative to the reported economic expansion of 1.9% in the first quarter of 2020. The lockdown of several states and the Federal Capital Territory (FCT) in the second quarter of the year will have an immense negative impact on GDP growth in the year. The three major GDP components - household consumption, government spending, private investment -

were constrained during the lockdown induced by the spread of coronavirus and are expected to perform poorly in 2020 relative to the previous year. This is based on the high level of uncertainty over the pandemic, as well as, the fragility of the economy exemplified by the poor performance of major macroeconomic indicators. In the NESG macroeconomic outlook report released in January 2020, three scenarios were projected for the Nigerian economy in the full year 2020.

The underlying assumptions include movements in crude oil price, government capital spending and oil production volumes. Our worst-case scenario assumed an average crude oil price at US$44 per barrel in 2020; average crude oil production of 1.5 million barrels per day and capital spending of N1 trillion in the 2020 budget.

The outcome showed that GDP will decline by 1.9%; Inflation will rise to 15%; Government revenue will decline by 25%;

Exchange rate will reach N400/US$1 while the unemployment rate and underemployment rate will increase to 52% in 2020. With the COVID-19 outbreak and restrictions of movement and economic activities across certain sectors, the Nigerian economy will be severely affected in 2020. This means that our new worst-case scenario will capture more pessimistic expectations about the movements in crude oil price and output most especially. Several industry estimates have shown that Nigeria's GDP would contract significantly in 2020 (See Table 1).

Major economic sectors will feel the impact of COVID-19

From a sectoral perspective and prior to COVID-19 outbreak, the economy showed signs of fragility as 10 out of the 46 activity sectors contracted in 2019 while about 16 of the 46 sectors recorded growth of less than 2% in the year. Looking at the three broad sectors, Services remained the largest sector accounting for 52.6% of GDP.

Figure 1: PMI suggests a negative GDP growth in Q2'2020
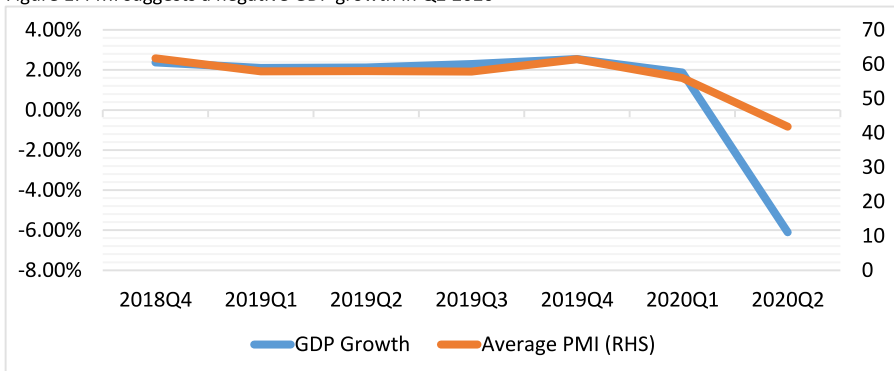
Source: CBN, FSDH & NESG Research

Table 1: Growth Projections for Nigeria in 2020

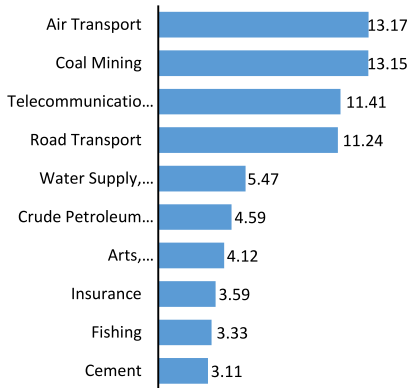|	
Fitch	-1%
IMF	-5.4%
McKinsey (worst-case scenario)	-8.8%
Dalberg (worst-case scenario)	-27%

The sector was a major contributor to overall economic growth and housed three of the top five fastest growing sectors in the year (See Figure 2). Growth in Agriculture intensifies – the sector grew by 2.4% in 2019, an improvement from 2.1% in the previous year with growth led by aquaculture followed by crop production. Adequate rainfall, which improved vegetation and continued support of the government to farmers improved agricultural output in 2019. Nigeria's huge market, improved oil sector performance, as well as, government's interventions were not enough to trigger significant growth of the industrial sector during the year. Industrial activities expanded by 2.3% with Coal Mining; Water Supply, Sewage, Waste Management and Remediation, and Crude Petroleum and Natural Gas playing major roles in the sector's growth narrative. The manufacturing sector grew marginally by 0.8% in FY'2019 and continued to grapple with the perennial challenges of inconsistent policies, infrastructure deficit, poor electricity supply and lack of policy direction. Considering the impact of COVID-19 on global crude oil price and demand, Nigeria's oil sector will be the first and main culprit as it is expected to display negative growth in the year. Lower oil prices and staggering production are likely to persist with negative implications on government finances, other economic sectors and overall economic growth. Drawing from previous experiences, contraction in the oil sector often drags overall economic growth. In several instances, the contraction in the oil sector had resulted in an overall economic recession in the early 1980s, 1990s and in 2016. However, there are also a few cases where contraction in the oil sector did not lead to a recession, and this was largely a result of the resilience of the non-oil sector and the adequacy of external reserves. For instance, the oil sector contracted between 2006 and 2008, but growth in the non-oil sector averaged 11% and sustained the economy. Similarly, external reserves stood at US$50 billion during the period. Unfortunately, non-oil sector growth in 2018 and 2019 averaged 2% showing weak resilience, with external reserves currently at $36bn. These factors, coupled with the direct impact of lockdown and restrictions of economic activities in some sectors, will result in poor performance of the non-oil sector in 2020.
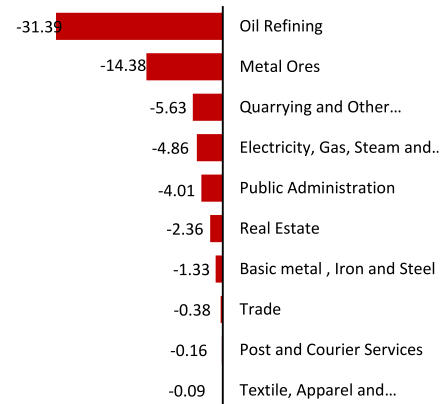
Figure 2: Nigeria Real Sectors performance (%)

Top 10 Sectors with fastest growth in 2019 in %

Sector	Growth (%)
Air Transport	13.17
Coal Mining	13.15
Telecommunicatio…	11.41
Road Transport	11.24
Water Supply,…	5.47
Crude Petroleum…	4.59
Arts,…	4.12
Insurance	3.59
Fishing	3.33
Cement	3.11

Bottom 10 Sectors with least growth in 2019 in %

| Sector	Growth (%)
Oil Refining	-31.39
Metal Ores	-14.38
Quarrying and Other…	-5.63
Electricity, Gas, Steam and..	-4.86
Public Administration	-4.01
Real Estate	-2.36
Basic metal , Iron and Steel	-1.33
Trade	-0.38
Post and Courier Services	-0.16
Textile, Apparel and…	-0.09

Source: NBS and NESG Research

Trade Balance declined in 2019 and was negative in the last quarter of the year

In our Macroeconomic Outlook Report released in January 2020, we had noted the declining trend of Nigeria's trade balance which stood at N2.8 trillion as at September 2019 from N5.4 trillion in the previous year. With the release of trade data for the fourth quarter of 2019, the overall trade deficit for full-year 2019 fell further to N2.2 trillion.

This contraction was largely due to a decline in the value of crude oil exports and the negative impact of Nigeria's land border closure on non-oil exports which plunged by 43.9% in the fourth quarter of 2019. Also, in the quarter, Nigeria's trade balance slipped into a deficit of N579 billion ($1.6 billion) for the first time since the third quarter of 2016. With the outbreak of the coronavirus and lower crude oil demand, the export of crude

Figure 3: Exports, Imports and trade Balance (Trillion Naira)

|	FY'2018	FY'2019
Imports	13.2	17.0
Exports	18.5	19.2
Balance	5.4	2.2
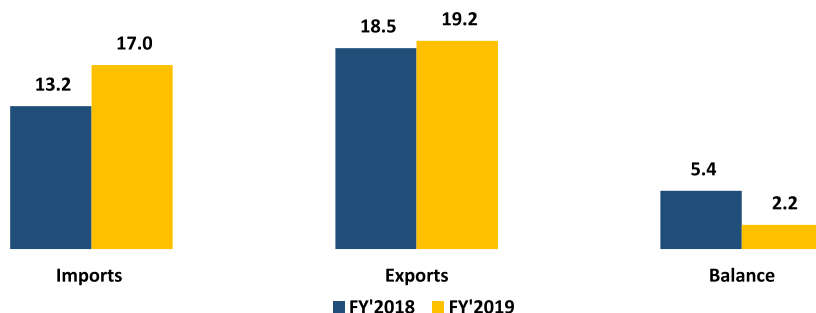
Source: CBN and NESG Research

is expected to fall further in 2020. As experienced in 2016, the trade balance is expected to plunge into a deficit in FY'2020, with huge implications on government revenue, export earnings and external reserves.

Foreign Investment inflow in 2019 outperformed 2018 but declined consistently from Q2'2019

At US$24 billion, foreign investment inflow in 2019 was the highest Nigeria has recorded in over 10 years. As with previous years, growth in investment inflows was led by Foreign Portfolio Investments (FPI) and 'Other Investments', which accounted for

68.2% and 27.9% of total inflows, respectively. Despite the significant increase in investment inflows relative to previous years, high level of uncertainty in the aftermath of the elections, delay in ministerial appointments and weak investors' sentiments resulted in declines in overall inflows from US$8.5 billion in Q1'2019 to US$5.8 billion in Q2'2019, US$5.4 billion in Q3'2019 and US$3.8 billion in Q4'2019. Foreign investment inflows for Q1'2020 fell sharply by 31.2% to $5.9 billion from $8.5 billion in the corresponding quarter of 2019 (Q1'2019). The year-on-year decline in investment inflows is the first since the last recession in 2016. Foreign

Figure 4: Foreign Investment Inflow into Nigeria (Billion US$)
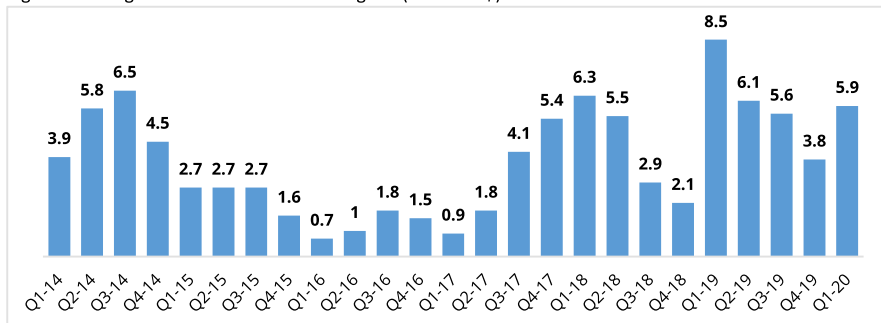
Source: NBS & NESG Research

Figure 5: Types of Foreign Investment Inflows into Nigeria in Q1'2020
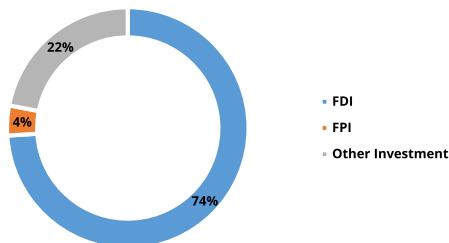
Source: NBS & NESG Research

investment inflows into Nigeria would experience a significant decline in 2020 given the fall in crude oil price, external reserves and uncertainty caused by the sudden outbreak and rapid spread of COVID-19 across world economies.

Foreign Direct Investment (FDI) Inflow continued to perform poorly...

Nigeria's recent history on FDI has not been impressive and the year 2019 was no different. FDI in 2019 and Q1'2020 stood at US$934 million and US$214 million, respectively, representing only 4% of total investment inflows into the country during both periods. Nigeria's FDI inflows have consistently remained around US$1 billion in the last four years, a meagre amount when compared with that of similar developing countries. FDI inflows, most especially cross-border investments, are expected to fall significantly in 2020 due to huge disruptions to global supply chain arising from COVID-19 crisis.

...and external reserves to face pressures in 2020

Despite a relatively stable oil price in 2019, external reserves for 2019 stood at US$42.8 billion down from US$44.5 billion in 2018. The continued intervention of the Central Bank of Nigeria (CBN) in the FX market, high dollar demand for imports of services and goods as well as external debt servicing obligations were largely responsible for the falling reserves during the year. Coming into 2020, the outbreak of COVID-19 further amplifies the sliding trend in the reserves position through the oil price transmission channel. Given the bleak outlook for crude oil price and foreign investment inflows, as well as, an anticipated widening of trade deficit, external reserves are expected to come under intense pressure in 2020 going forward. While we do not rule out the possibility of a temporary rise in reserves due to external borrowing, this increase would, however, be offset by weak oil and

Figure 6: External Reserves (US$ Billion)

Source: CBN and NESG Research

**Inflation rate continues to amplify as the effect of COVID-19 comes to play**

Since the implementation of the border closure policy, the inflation rate has risen sharply from 11% in August 2019 to 12% in

February 2020. The headline inflation stood at a 25-month high of 12.4% in June 2020, the inflation rate pointed at 12.3%.

Food inflation was a major driver of overall inflation, rising to 15% in March from 14.7% in December 2019. Alongside the inflationary impact of the border closure, the outbreak of COVID-19 has further heightened inflationary pressures on the economy. Value chain disruptions, exchange rate depreciation along with structural issues such as poor electricity supply, infrastructure deficit will trigger a rising inflation rate in subsequent months.

Figure 7: Nigeria's Inflation Rate (%)
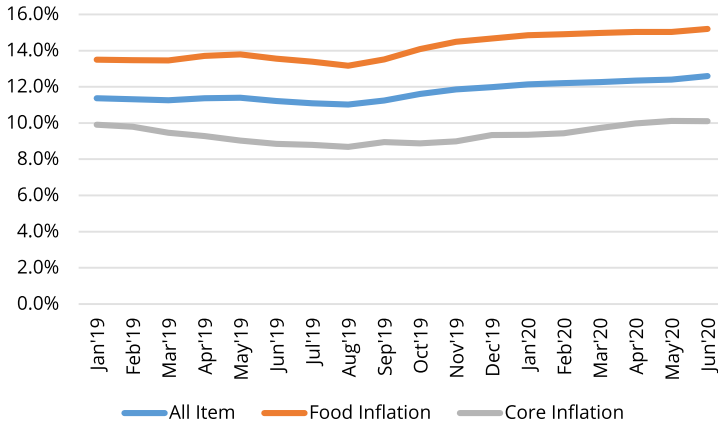
Source: NBS & NESG Research

The outbreak of coronavirus and oil price slump aggravate the shrinkage of fiscal space

Nigeria's fiscal position is being challenged as oil and non-oil revenue projections in the 2020 Budget are likely not to be met. Consequently, the 2020 Budget is being revised downwards with an approved crude oil price benchmark of US$25 per barrel and an estimated crude oil output of 1.7 million barrels per day (mbpd). In a revised 2020 Budget proposal sent to the National Assembly, the federal government budget has been revised downward from NGN10.6 trillion to NGN10.3 trillion, representing a 2.8% decline. This translates to a reduction in expenditure components: capital expenditure was slashed from N2.8 trillion to N2.6 trillion, non-debt recurrent expenditure was lowered by 0.7% to NGN4.5 billion. Going deep into the year 2020, efforts must be geared towards prioritizing capital expenditures due to its significance in stimulating growth through infrastructure delivery. Similarly, the revenue projection for 2020 was revised downwards from N8.4 trillion to N5.1 trillion. Projected oil revenue witnessed the biggest cut by 90% to N254.3 billion while the expected non-oil revenue was reduced from N1.8 trillion to N1.5 trillion. Consequently, the overall budget deficit widened by 57.6% from N2.2 trillion to N5.2 trillion.

Figure 8: FGN Revised Budget (Trillion Naira)
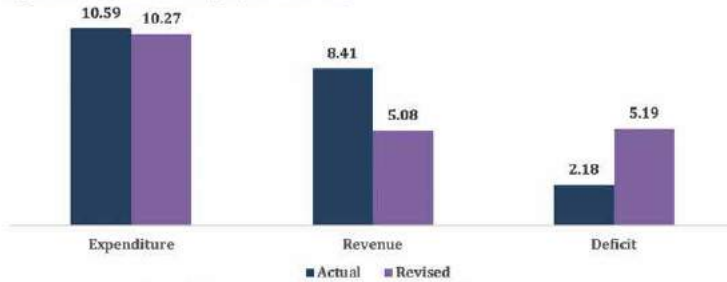
Source: Budget Office of the Federation and NESG Research

With declining revenue, Nigeria's debt position will be worsened as the government is set to embark on massive borrowing of over N4.43 trillion. Nigeria's total public debt, which stood at N28.6 trillion as at March 2020 is expected to continue its upward trend in 2020 going forward. Ultimately, debt servicing as a share of revenue is expected to increase significantly.

Figure 9: Total Debts for all Tiers of Government (Trillion Naira)
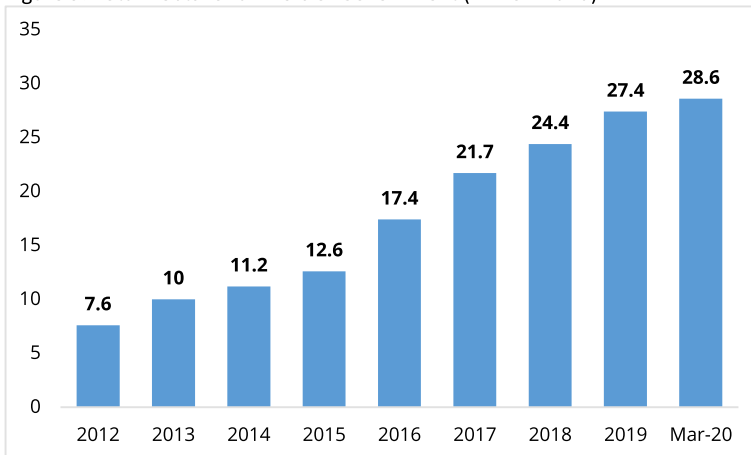
Source: NBS & NESG Research

Figure 10: Share of Public Debt

Source: NBS & NESG Research

COVID-19: Quantifying the Sufficiency of Government Response

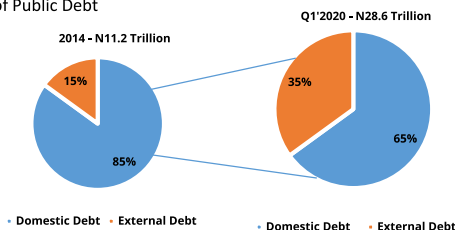Governments around the world have adopted various measures to curtail the spread of the virus and address the associated negative socio-economic impacts. Although identical approaches and containment measures (non-economic) have been deployed, ranging from mobility restrictions, social distancing among others, the economic responses with regards to fiscal, monetary, exchange rate and macro-financial policies and their magnitudes vary significantly. While Japan has announced stimulus packages worth 20% of its GDP, the value of other selected countries policy stimulus amounts to 5% of national GDP, on average (See Figure 11).

Announced interventions in Nigeria is estimated at N4.5 trillion (3.1% of GDP)

In Nigeria, the monetary value of announced interventions to contain the spread of the virus and cushion its effects on key sectors and households has totalled N4.5 trillion (US$11.2 billion), representing 3.1% of the overall GDP. This consists of interventions from the CBN, fiscal authorities and donations.

Nevertheless, Nigeria requires N10.1 trillion (7% of GDP) worth of interventions to ameliorate the devastating impact of coronavirus on the economy. For a low-middle income country like Nigeria, with a slow and fragile economic growth, over 100 million individuals living in poverty, and a high unemployment/underemployment rate at 43.3%, we estimate that combined government interventions should amount to 7% of GDP. This represents a financing gap of N5.6 trillion (US$14 billion). The importance of closing this funding gap cannot be overemphasized, considering the level of decay in the country's health sector, coupled with the dominance of informal micro, small and medium scale businesses in the economy, that are in dire need of support.

Figure 11: Value of COVID-19 fiscal stimulus packages in G20 countries as of April 2020, as a share of GDP
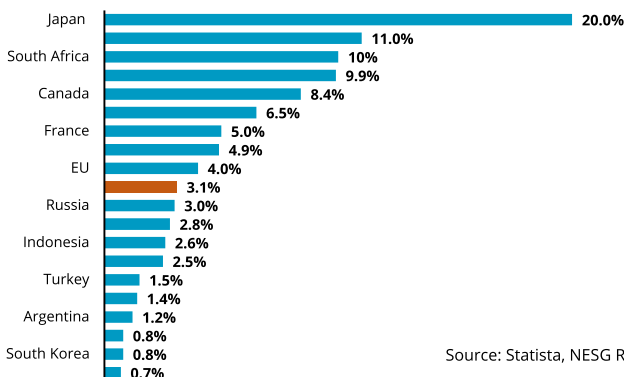
Source: Statista, NESG Research

Table 2: Overview of Key Fiscal Interventions and Stimulus in Nigeria

1	Establishment of a ₦500 billion COVID-19 Crisis Intervention Fund to upgrade federal/states healthcare facilities and finance the creation of a Special Public Works Programme.
2	Enhanced financial support to the States for critical healthcare expenditure: US$190 million World Bank Regional Disease Surveillance Systems ('REDISSE') facility, to be accessed by the Nigeria Centre for Disease Control (NCDC). In addition, the Federal Government has provided ₦102.5 billion for direct interventions in the healthcare sector.
3	Augmentation of FAAC allocations to States and moratorium on States' debts: US$150 million from the Nigeria Sovereign Investment Authority (NSIA) Stabilisation Fund to support the June 2020 FAAC disbursement.
4	Strategic Sectoral intervention: Small / Micro Enterprises are now completely exempted from corporate taxation; corporate tax rates for Medium-sized Enterprises reviewed downward from 30% to 20%; and the Finance Act, 2019 VAT Exemption List for essential food, medical supplies and other basic items that are critical in our efforts to address the COVID-19 Pandemic.
5	Amendment of 2020 Appropriation Act: Revision of benchmark oil price and production for 2020 to US$30/barrel and 1.7mbpd, respectively.

Source: Federal Ministry of Finance, Budget and National Planning

Table 3: Overview of Key Monetary Policy Interventions in Nigeria

1	Maintained all policy rates at the current levels;
2	Reduction of interest rates on all CBN interventions from 9 to 5 percent;
3	One-year moratorium on CBN intervention facilities;
4	₦50 billion ($139 million) targeted credit facility;
5	Liquidity injection of ₦3.6 trillion (2.4 percent of GDP) into the banking system;
6	Regulatory restriction was also introduced to restructure loans in impacted sectors;
7	Adjustment of official exchange rate by 15 percent;
8	Ongoing plan to unify the various exchange rates;
9	Foreign exchange funding to pharmaceutical companies.

Source: Central Bank of Nigeria

In the initial 2020 Budget, fiscal deficit stood at N2.1 trillion representing 1.4% of GDP, well below the stipulated 3% in the Fiscal Responsibility Act. However, following the downward revision of the budget which saw the reduction of crude oil benchmark, we anticipate a widening of the budget deficit. Meeting the additional financing need for COVID-19 response will require adjusting the fiscal deficit, as a share of GDP, from the stipulated 3 percent in the Fiscal Responsibility Act to 5%.

Funding the gap: what option?

As earlier indicated, Nigeria needs at least N10.1 trillion worth of interventions. Our current intervention capacity stands at N4.5 trillion. To ameliorate the impact of COVID-19 and oil price decline on the economy, Nigeria needs to close the gap. So, the question is how do we fund the gap? Unfortunately, Nigeria is faced with the dual problem of declining revenue and the absence of adequate savings either in the form of external reserves or fiscal buffers to finance such a huge gap. This leaves policymakers with the option to borrow domestically or from multilateral agencies and embark on quantitative easing. To fund the gap, there are several options available to the Nigerian government, each with potential benefits and drawbacks:

Domestic borrowing:

The Federal Government can issue domestic medium- to long-term bonds to raise capital. On a positive note, at a time of uncertainty, fixed income securities will appeal to investors who are seeking safe havens for their funds. On the flip side, the significant rise in domestic debt often leads to higher domestic interest payments, which is detrimental to the private sector. This is more so in developing countries like Nigeria where national savings are quite low compared with those of developed countries.

External borrowing:

Nigeria can secure loans from multilateral institutions such as the World Bank, IMF, International Finance Corporation (IFC) and African Development Bank (AfDB). Already, the IMF has approved the government's request for a US$3.4 billion credit facility as emergency funding. The Nigerian government is also looking to borrow US$2.5 billion from the World Bank and US$1 billion from the AfDB. More funding from multilateral institutions can be explored in this respect to fill the existing funding gap. The downside to this channel is obvious. Nigeria may have to follow the IMF and other multilateral institutions' conditionalities and reforms with their unpalatable implications on the socio-economic stability, especially at this period.

Quantitative Easing (QE):

In this challenging time, the Central Bank of Nigeria (CBN) could consider the purchase of government securities to increase the money supply and encourage lending and investments. While this approach is considered the second best to the more conventional monetary policy approach, quantitative easing can also deteriorate exchange rate stability and can put more pressure on inflation. Also, social welfare tends to be lower under optimal QE than under optimal conventional policy. In all, the sacrifice ratio reminds us that if we choose a low level of unemployment, we must reconcile ourselves to a high rate of inflation. Nigeria may then have to go for the lower unemployment rate at the expense of higher inflation, which will make inflation targeting a secondary monetary policy option.

Despite the challenges of borrowing, expansionary fiscal policy remains the optimal approach to revamping the economy. For example, an increase in government spending tends to increase demand for goods and services, which also increases output and employment. The question is, if we raise this differential, how will the economy be impacted? Table 3 shows new projections of GDP based on government spending at different sizes of fiscal stimulus. The results are instructive as the table depicts a more optimistic outlook for economic output from 2020 to 2023 as a result of the increased interventions. The results are instructive as the table shows capacity (at N4.5 trillion).

Table 4: New projections of GDP based on government spending at different sizes of fiscal stimulus

	2020	2021	2022	2023
N4.5 trillion ($11.2 billion): 3.1% of GDP	-7.3	-4.0	-1.28	2.1
N6 trillion ($ 15 billion): 4.1% of GDP	-5.6	-3.2	0.4	3
N8 trillion ($20 billion): 5.5% of GDP	-4.1	-2.2	1.8	4
N10.1 trillion ($25.2 billion): 7% of GDP	-3.2	-1.1	2.4	5
N12 trillion ($30 billion): 8.3% of GDP	-2.8	0.5	3.3	6.4
N14 trillion ($35 billion): 9.6% of GDP	-2.2	2.4	5	7.2

Source: NESG Research

Macroeconomic Projection for 2020 in light of Coronavirus Pandemic

Our projection was done based on the regional-wide Dynamic CGE model of the Nigerian Economic Summit Group (NESG-DynCGE-Model), which was revised to accommodate the uniqueness and peculiarities of the issues under consideration, being COVID-19 and the impact of weak oil price on the economy.

The model involves dynamic optimization behavioural assumption while we extracted projections for 2020.

	Assumption	Outcomes
Scenario 1: Best Case	● Global oil price averaged $35/barrel in 2020 ● Oil productions of 1.3 million barrels per day (mbpd)	● 4.1 percent decrease in real GDP in 2020 ● Investments will decline by 39.4 percent in 2020 ● Government revenue will plunge by 40 percent in 2020 ● Inflation averages 15 percent in 2020
Scenario 2: Business as Usual	● Global oil price averaged $20/barrel in 2020 ● Oil productions of 1.3 million barrels per day (mbpd)	● GDP will decline by 5.3 percent in 2020 ● Investment is expected to decline in 2020 by 50 percent ● Government revenue will decline by 51 percent in 2020 ● Inflation will average 17.5 percent in 2020
Scenario 3: Worst Case	● Global oil price averaged $15/barrel in 2020	● Real GDP will decline by 7.3 percent in 2020

Rationale & Outcomes

Scenario 1

Rationale: In our best-case scenario, we assume global oil price experiences some level of stability averaging US$35 per barrel in 2020 from US$25 per barrel as at the end of April 2020. This is above the revised 2020 budget benchmark.

This is on the back of containment of the spread of the virus; major economies resume production tension between and Saudi Arabia and Russia pull through with the cut agreement. In terms of production, this scenario assumes an improvement in crude oil production to settle at 1.3 mbpd following renewed demand in the market, the relative peace in the Niger-Delta region and recent commitments by the leaders of the National Assembly to begin work on the different aspects of the Petroleum Industry Bill.

Outcomes: GDP will decline by 4.1% in 2020, driven by a contraction in Agriculture, Manufacturing, Oil & Gas and Trade sectors. The investment will decline by 39.4% in 2020 as much investment would have gone into social security and palliatives. Government revenue will plunge by 40% in 2020 as oil and non-oil revenues are constrained. Inflation averages 15% in 2020 sequel to the global supply chain and devaluation of naira from N306/US$ to N360/US$.

Scenario 2
Rationale: In the business-as-usual scenario, we project a less optimistic overview of oil price compared with the first scenario. Here, we see a deeper downturn in the global oil market reflecting in oil price averaging US$20 per barrel in 2020. This manifests as the coronavirus spread curve is flattened while the chase for a vaccine continues and some parts of the world remain on lockdown. The assumption on oil production remains at 1.3 million barrels per day (mbpd).

Outcomes: The outcome for Scenario 2 is a deeper cut in economic activity. The economy is expected to slip into a deeper recession as the real GDP contracts by 5.3%. This will be as a result of a deeper contraction in major growth drivers in the economy. Investment is expected to decline by 50% as government revenue dips by 51% in 2020. Meanwhile, inflation will average 17.5% in 2020.

Scenario 3
Rationale: In the worst-case scenario, we assume crude oil price averages US$15 per barrel driven by a persistent escalation of the virus and restriction of economic activities. Nigeria's crude oil production averages 1.3 mbpd.

Outcomes: The outcome of Scenario 3 for real GDP is a deeper recession; real GDP will decline by 7.3% in 2020. Investment level as well as government revenue will decline significantly by 65% and 63% respectively in 2020. Inflationary pressure intensifies as inflation rate averages 18.4% in 2020.

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Wait...
Stop.

Who said we have to
go back to normal?

There is no normal.
There's just you and me.
What if all it takes is
Courage to be open?
And say...

I will never say my job is
unimportant again.
I won't wait for another crisis
to live the way I want.
I'll try to listen more,
with my ears not my earphones.
I'll travel less, and love
every mile of it.
I'll go forward,
without leaving anyone behind.
And never forget how much
stronger we are together.

I'll be humble, kind
goofy, sexy, honest...

Open Like Never Before

Coca-Cola

Industrialization: A Roadmap to Inclusive Growth in Nigeria

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Abstract

The desire for inclusive growth in Nigeria is at the forefront of most public discourse owing to the rising level of inequality, poverty, and unemployment in the country. Given the monocultural nature of the Nigerian economy and the instability in the crude oil market, this study argues for industrialization as a roadmap to inclusive growth in Nigeria. It was found that periods of low industrial output correspond with periods of high unemployment and low-income per head in Nigeria. Empirical findings revealed that GDP per capita is likely to increase by 0.38%, while the unemployment rate will likely reduce by 0.03% for every 1% increase in industrial output. Therefore, the government should embark on pro-industrial policies such as revitalizing the industrial sector through massive investment in technological progress and industrial infrastructures, promoting inter-sectoral linkages, facilitating private-public partnerships, and operating a relatively closed economy.

Introduction

The need for inclusive growth in Nigeria is more cogent than ever given the rising levels of inequality, poverty, and unemployment in the country. This has informed policies and plans, putting social and economic inclusiveness at the forefront of macro-economic objectives in Nigeria, as documented in the Economic Growth and Recovery Plan (ERGP); taking social and economic inclusion as one of the medium-term targets, and the eighth goal of the Sustainable Development Goal (SDG) — promotion of sustained, inclusive, and sustainable economic growth. Fortunately, Nigeria is not the only country to have found itself in inequality and poverty conundrum, countries like Korea, Taiwan, Hong-Kong, China and Malaysia had at one time experienced the same. Lessons from these countries show the importance of industrialization in fostering inclusive growth and sustainable development.

Simandan (2009) alluded that industrialization is a generic name for a set of economic and social processes associated with discovering more efficient ways for value creation. Anyanwu et al. (1997) viewed it as the process of building up a nation's capacity to convert raw materials and other inputs to finished goods, including the manufacture of capital and consumer goods. Industrialization is about value addition, with a sturdy manufacturing sector at its centre. Industrialization is central to achieving a vibrant economy because of its forward and backward linkages as its inputs and output are sourced from and used by other sectors of the economy, respectively. Hence, industrial

growth could propel the growth of the primary sector and the tertiary sector as well as create more employment opportunities so as to increase more labour force participation.

Empirical evidence in support of industrialization as a potent tool for inclusive growth abound. Chenery et al (1986) proved, both on the theoretical and empirical ground, that industrialization contributes positively to economic performance. Shi and Cao (2019) found rural industrialization a catalyst for the growth of the Beijing metropolitan while Yang and Shao (2017) found employment quality to be significantly associated with the industrialization process in China.

Despite the huge potentials in industrialization, Alege and Ogun (2004) alluded that Nigeria is yet to fully exploit it while Amakom (2008) referred to Nigeria's experience with industrialization as a classic case of misfortune. This misfortune has been traced to combined forces of institutional inadequacies and pervasive corruption in the Nigerian system. Statistical data revealed that the performance of the Nigerian industrial sector has been so poor over time, especially with the exclusion of the contribution of the oil and gas industry (see Figure 3). The shrinking contribution of the industrial sector to GDP, together with Nigeria's burgeoning population is a major cause of rising poverty, inequality, and unemployment in the country. Nevertheless, industrial sector deve-

lopment, with particular reference to the manufacturing sector, could put Nigeria on the inclusive growth trajectory.

Most studies on industrialization focused on its impact on economic growth and not inclusive growth. To this end, this study contributes to the literature by examining the impact of industrialization on inclusive growth in Nigeria. Following this introductory section, stylized facts are discussed in the second section, methodology and empirical analysis are the main thrust of the third section, while the fourth section concludes and provides policy implications from the findings of this study.

Stylized Facts

The structure of the Nigerian economy is multifaceted with different sectors contributing to aggregate output (see Figure 1). In the 1980s, 1990s, and early 2000s, the industrial sector had the highest contribution to GDP but its performance has dwindled due to the multifarious bottlenecks in the sector, including oil price volatility, financial constraints, dilapidated infrastructures, low innovative capacity, and political instability. The formerly dominant industrial sector has now been toppled by the services and agricultural sector. However, the manufacturing sector seems to be gradually evolving albeit with a relatively low contribution to GDP, but it has the potential to foster inclusive growth in Nigeria given its labour-intensive nature.

The dominant subsectors under the

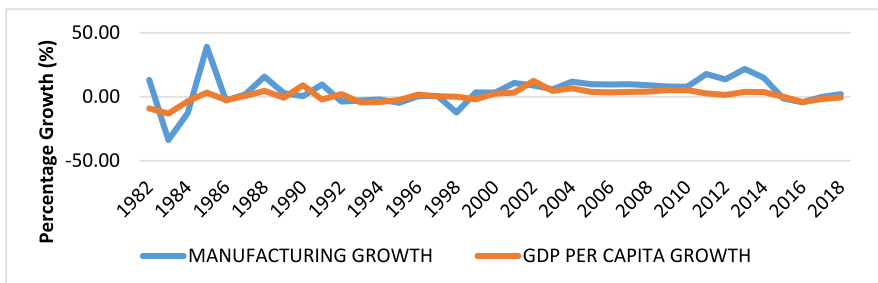**Figure 1: Sectoral Contribution to Aggregate Output**
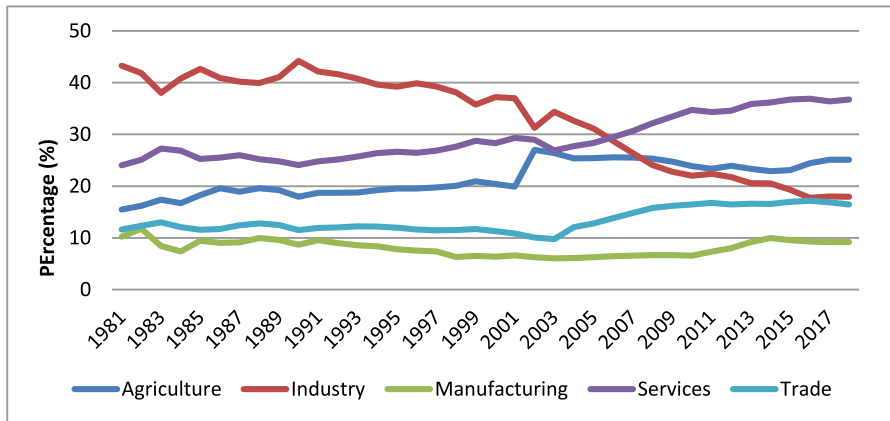
Nigerian industrial sector are manufacturing and oil and gas. The manufacturing sector's growth rate and GDP per capita growth follow similar trend almost throughout the period under review (see Figure 2) such that a positive turn in manufacturing sector performance is associated with a positive turn in GDP per capita and vice versa; although the growth of the manufacturing sector is more pronounced than that of GDP per capita. This suggests that the manufacturing sector is a determinant of welfare in the Nigerian economy such that if concerted efforts can be made to prioritise the sector, it will accelerate industrialization and improve the welfare of Nigerians.

However, to analyse the relative contribution of the industrial sector to national output, we differentiated total industrial output from industrial output devoid of the oil and gas sector. Industrial output (% of GDP) averaged about 40%

Figure 2: Manufacturing Growth and GDP Per Capita Growth

Figure 3: Industrial Contribution to Aggregate Output
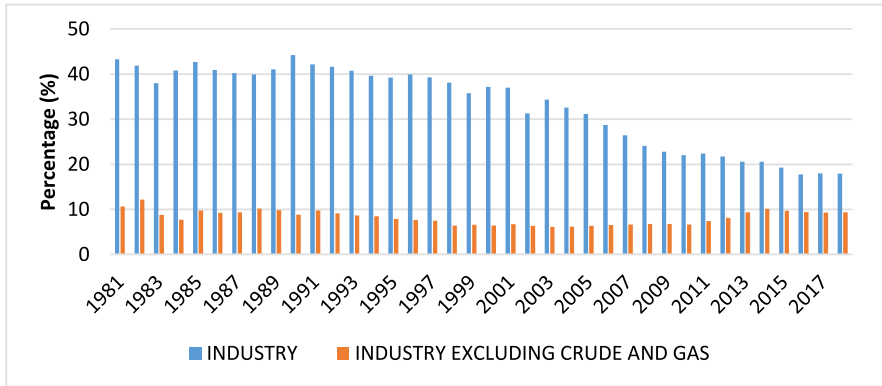
Source: CBN Statistical Bulletin (2018)

between 1981 and 1998 but contributed less than 10% to GDP with the exclusion of the oil and gas sector (see Figure 3). From 2000 to 2018, industrial output fell to an average of 25% of GDP while with the exclusion of the oil and gas sector, it contributed only an average value of 7.65%. This shows the domineering role of oil and gas in the overall industrial sector. Unfortunately, the oil and gas sector only accommodates an insignificant proportion of the labour force as it is primarily capital-intensive, a situation which has made Nigeria's growth to be non-inclusive thereby engendering high levels of income inequality and poverty incidence.

The capital-intensive nature of the dominant oil and gas subsector, a component of the industrial sector, implies that less labour force would be absorbed into the sector and consequently limiting the power of the industrial sector to foster inclusive growth (reduce unemployment and poverty while promoting growth). In sum, the contribution of the industrial sector to GDP is driven mostly by the oil and gas sector and the contribution of the manufacturing sector is still at low ebb. The key challenges impeding the performance of the industrial sector can be attributed to the endemic problems of pathological politics and the pervasive corruption in the economy, which has resulted in infrastructural decay and policy somersault, among other economic maladies (Stiglitz et al, 2017). It, therefore, becomes imperative for policy-makers and various stakeholders to put measures in place to revamp the moribund manufacturing sector in Nigeria.

On the other hand, there is an inverse co-movement between unemployment and industrial output as the declining contribution of industrial output to GDP corresponds with rising unemployment in Nigeria which became prominent between 2013 and 2018 (see Figure 4). This indicates

Figure 4: Unemployment Rate and Industrial Contribution to Real GDP
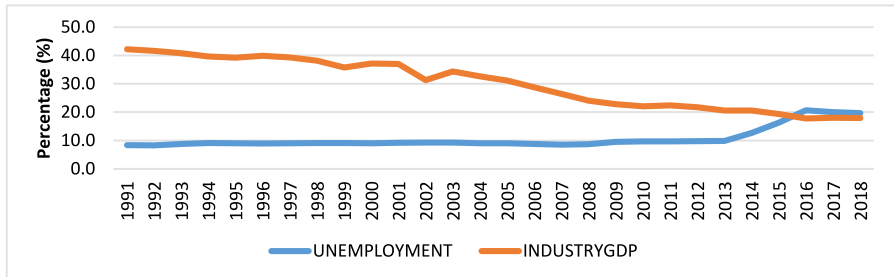
that the neglect of the industrial sector has compounded unemployment woes and worsened poverty incidence. Put differently, the high premium given to other sectors at the expense of the industrial sector has facilitated non-inclusiveness of growth in Nigeria. Nonetheless, industrialization remains a panacea to unemployment problems in Nigeria as revamping the sector would not only improve its performance but reduce unemployment, poverty, and income inequality in Nigeria.

Methodology

This study examines whether industrialization is capable of driving inclusive growth in Nigeria by examining the impact of the key sectors (agriculture, industry, and service) of the Nigerian economy on inclusive growth (measured by GDP per capita) and unemployment rate. Data from 1991-2018 were sourced from the World Development Indicators (2019) and the models are specified as follows:

$$GDPPC_t = \alpha_1 + \alpha_2 IND_t + \alpha_3 AGR_t + \alpha_4 SER_t + \mu_{1t} \quad (1)$$

$$UNEM_t = \beta_1 + \beta_2 IND_t + \beta_3 AGR_t + \beta_4 SER_t + \mu_{2t} \quad (2)$$

Where:

IND = Industry value added (% growth)
SER = Services value added (% growth)
AGR = Agriculture value added (% growth)
UNEM = Unemployment (% of total labour force)

GDPPC = GDP per capita growth (%); $\mu_1 \mu_2$ are stochastic error term; t = time period The Ordinary Least Square (OLS) method is used to estimate the models since all the variables are stationary. The choice of OLS technique lies in its ability to minimize the sum of the squared error to produce unbiased estimates. The results are reported in the **Appendix.**

Empirical Analysis

Industrial sector output exerts a significant positive impact on GDP per capita but a significant negative impact on unemployment such that when industrial output grows by 1%, GDP per capita will rise on average by 0.4% while unemployment will fall on average by 0.02% (see Appendix). This suggests that improving the performance of the industrial sector enhances the welfare of residents of Nigeria first by increasing their income and second,

by reducing unemployment. This will lead to a reduction in poverty in Nigeria, and ensure that Nigeria's growth is inclusive and not devoid of improvement in the welfare of Nigerian citizens. Nonetheless, the recent gradual decline in the contribution of the industrial sector to GDP, increasing unemployment, and the fall in economic growth depicts that the industrial sector has the potential to drive not just economic growth, but inclusive growth in Nigeria. Furthermore, the result reveals that an increase in industrial output in the previous year will boost employment in the following year, thereby unveiling industrialization as a roadmap to Nigeria's quest for inclusive growth.

Moreover, the share of the agricultural sector in GDP has a positive impact on economic growth without a declining unemployment rate. Specifically, the result shows that an increase in the share of the agricultural sector in GDP by 1% will increase GDP per capita and unemployment by approximately 0.2% and 0.001% respectively. However, whereas the coefficient of agricultural output is statistically significant, that of unemployment is not. This further gives credence to the earlier assertion that the agricultural sector is capable of stimulating economic growth, but not providing quality jobs. Hence, the growth generated by the agricultural sector is not inclusive. This could be attributed to the fact that the majority of Nigerian youths prefer to seek white-collar jobs as they see agriculture as a dirty job, primarily because agriculture in Nigeria has not been fully mechanized. More so, other problems such as lack of storage facilities, bad road networks, and limited improved seedling, among others, remain prevalent in the Nigerian agricultural sector.

Similarly, Nigeria's services sector has a significant positive relationship with economic growth, but an insignificant inverse relationship with unemployment. As was the case with the agricultural sector, the contribution of the service sector drives growth, but not inclusive growth. Intuitively, it suggests that the performance of the service sector has little or no impact on reducing the poverty levels in Nigeria, thus, limiting its ability to drive inclusive growth in Nigeria. This result is not surprising as the service sector is largely capital-intensive. Even though the service sector now takes the lion share regarding its contribution to total GDP, it does not translate to more employment opportunities for the teeming Nigerian citizens. Nonetheless, it is noteworthy that the service sector has the highest impact on economic growth in Nigeria, which confirms the earlier analysis on the increasing importance of the service sector in Nigeria, and the need to vigorously pursue industrialization to tackle unemployment and poverty conundrums bedevilling the Nigerian economy. Therefore, industry-led growth outperforms agriculture-led and services-led growth.

Policy Recommendations

This study has shown that industrialization is a roadmap to inclusive growth. Hence, the following policies are recommended:

1. Government should revitalize the industrial sector through massive investment in technological progress and industrial infrastructures to increase the productivity and competitiveness of the sector. The power and transport sectors could first be targeted.

2. Tax holidays, capital allowances, subsidies, and duty drawback, among other incentives, should be offered to private industrialists to attract private sector participation into the sector as well as facilitate the public-private partnership.

3. A transfer of resources to the industrial sector will improve national output and attract structural change bonus. Specifically, finance for industrial enterprises should be affordable and easily accessible by issuing special directives to financial institutions to prioritize this sector and ensure enforcement of the directive. Complexities in assessing loans (such as collateral requirements, filling complex forms, and high interest rate) should be relaxed while foreign exchange should be made readily available to the industrialists especially those who import raw materials.

4. Nigeria should operate a relatively close economy through the facilitation of intersectoral linkages which create economies of scale and have spill-over effects on other sectors of the economy

5. Government should design, implement and monitor the progress of industrial policies through regular discourse with the private sector to identify problems, proffer evidence-based solutions, develop key performance indicators and learn modern best practices to improve performance and promote the competitiveness of the industrial sector.

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APPENDIX

Table 1: Estimation Results

Variables	GDP Per Capital Model	Unemployment Model
IND	0.38*	-0.029***
AGR	0.18*	0.001
SER	0.41*	-0.021
C	-2.47*	
AR(1)		0.998*
Adj. R-Squared	0.968	0.841

Source: Authors' Computation from Eviews 9

Inclusive Sectoral Financing for Sustainable Economic Growth

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Abstract

The dominance of the oil sector in government revenue and export has constrained the implementation of fiscal and monetary policies in Nigeria. Declining oil revenue limits the ability of the government to fund its budget, while the dominance of oil as the major foreign exchange earning sector complicates the implementation of monetary policy in Nigeria. The Central Bank of Nigeria (CBN) has implemented several policies to influence the lending pattern of commercial banks to certain sectors in a bid to enhance government revenue and economic growth. However, available statistics suggest that the sectoral lending pattern of commercial banks is not reflected in the sectoral composition of the gross domestic product (GDP) and export. It turns out that the agricultural sector which accounted for the highest share of GDP (21%) received about 4% of banks' loans. While the downstream oil and gas sector which received the largest chunk of bank loans (21%) contributed less than 9% to GDP. The Upstream oil and gas sector which received 9% of banks' loans accounted for over 90% of commercial banks' loans. A continuation of the observed trend in bank lending could limit the growth of the key contributors (sectors) to GDP and thus threaten the sustainability of GDP growth. Three recommendations are proposed in this paper toward ensuring the sustainability of the growth of the key contributors to GDP and export. Firstly, CBN interventions in banks' lending activities should enhance the growth of key contributors (sectors) to GDP, export, and government revenue. Secondly, the federal government should lead in the financing of large-scale manufacturing (textile, steel, and petrochemicals) in partnership with the private sector. Thirdly, the funds in the excess crude oil account should be dedicated to the infrastructural development of the industrial sector.

Introduction

The quest for diversification of the Nigerian economy is one that requires purposeful, coherent, and consistent strategies to achieve. To start with, it is imperative to define economic diversification explicitly to avoid generic usage. In this paper economic diversification is conceived regarding spread in the sectoral composition of gross domestic product (GDP) and export of the Nigerian economy. Thus, economic diversification is defined from an intensive perspective. GDP and export diversification aid sustainable economic growth and development by reducing the impact of negative sectoral shocks on the economy. The COVID-19 pandemic is a recent shock that led to the lockdown of countries and reduced global economic activities. While the impact of the shock is evident across all sectors of the Nigerian economy, its impacts on the oil market have a multiplier effect on the Nigerian economy. The federal government's 2020 revenue projection was revised downward by 40%, due to the decline in projected oil price and oil production by 47% and 22% respectively

(Iroanusi, 2020). The problem of low revenue has persisted for a while. For instance, between the years 2016 and 2019, the federal government realized revenue consistently fell below budgeted revenue. This low revenue resulted in increasing fiscal deficits and rising debt levels. The gravity of the revenue challenge is evident in its emergence at the top priority target in the 2020-2022 medium-term expenditure framework.
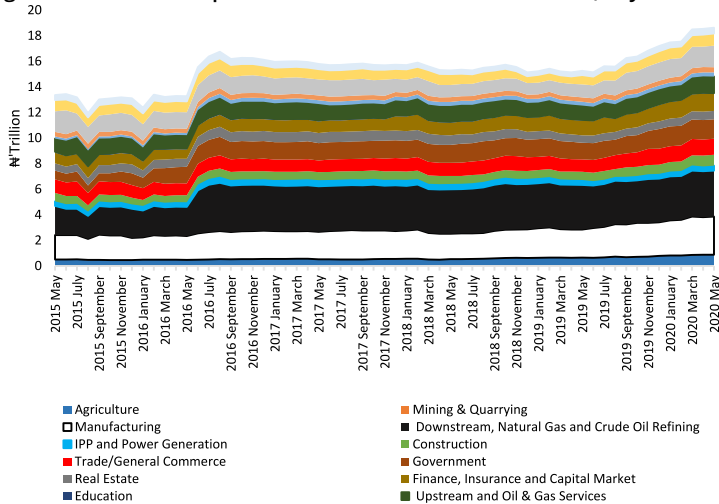
The challenge with the declining and volatile oil revenue implies non-oil revenue must grow and replace the declining oil revenue, to sustain the growth of the economy's aggregate demand. The ability of the government to generate non-oil revenue is a function of the production level of the non-oil sectors. The production level of the non-oil sectors is dependent on their accessibility to production inputs. Physical capital (for example plant, machines, and building) is one of the production inputs that firms often require external financing to acquire, given the huge cost requirement. The access to funding is skewed towards the oil sector as it accounted for the highest share of commercial banks' loans in recent years. The high cost of bank loans (16% — 30%) and the short loan tenor (five years or lower) often limits the access of firms in the non-oil sectors to banks loans (Al-Kawaz, 2008). Banks often favour oil firms due to their high rate of return and short investment payback relative to firms in the non-oil sectors.

This paper examines the implication of the concentration of commercial banks' loans towards the oil sector for the sustainability of economic growth and development of the Nigerian economy. The remaining sections of this paper focus on stylized facts on economic diversification and sectoral financing, the role of capital accumulation in economic growth, and the policy recommendation in sections two, three, and four respectively.
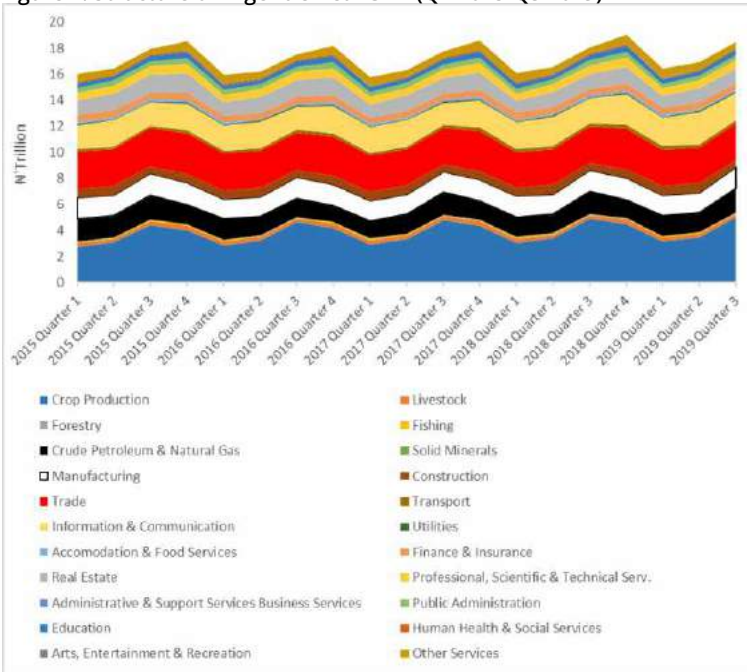
Stylized Facts: Sectoral Financing and Economic Diversification
This section analyses the structure of bank loans, GDP, and export using available statistics. It is evident from statistics that the main recipients of commercial banks' loans are not the major contributors to gross domestic product and export of the Nigerian economy. According to Figure 1, four sectors accounted for 51 % of commercial bank loans between May 2015 and May 2020. These four subsectors are: the downstream, natural gas and crude refining; manufacturing; government; and general service which accounted for an average of 21%, 14%, 8.3%, and 8.1% of banks loan.

Analysing the composition of GDP using Figure 2 shows that the top four sectors accounted for 60% of GDP between quarter 1 of 2015 and quarter 3 of 2019. The top four sectors are: crop production; trade; information and communication; and crude petroleum and natural gas which accounted for 22%, 17%, 12%, and 9% respectively. It is

Figure 1: Sectoral composition of Commercial Banks' loans (May 2015- May 2020)

- Agriculture
- Manufacturing
- IPP and Power Generation
- Trade/General Commerce
- Real Estate
- Education
- Mining & Quarrying
- Downstream, Natural Gas and Crude Oil Refining
- Construction
- Government
- Finance, Insurance and Capital Market
- Upstream and Oil & Gas Services

Source: CBN Statistical Database

Figure 2: Structure of Nigeria's Real GDP (Q1 2015-Q3 2019)

- Crop Production
- Forestry
- Crude Petroleum & Natural Gas
- Manufacturing
- Trade
- Information & Communication
- Accomodation & Food Services
- Real Estate
- Administrative & Support Services Business Services
- Education
- Arts, Entertainment & Recreation
- Livestock
- Fishing
- Solid Minerals
- Construction
- Transport
- Utilities
- Finance & Insurance
- Professional, Scientific & Technical Serv.
- Public Administration
- Human Health & Social Services
- Other Services

Source: CBN Statistical Database

interesting to note that while crop production (a subsector of agriculture) accounted for 22% of GDP, the agriculture sector received only 4 % of commercial banks' loans. While the leading receiver of bank loans, the oil and gas sector only contributed 9% to GDP.

Regarding export composition; according to

Figure 3, crude oil and its by-products accounted for an average of 91% of total export. The export of crude is attributable to firms in the upstream oil and gas sector, and this sector accounted for 8% of commercial banks' loans. Manufacturing and agriculture which received 14% and 4% of total banks' loans, contributed only 6% and 2% to export respectively.

Figure 3: Structure of Nigeria's exports (Q1 2017- Q1 2020)
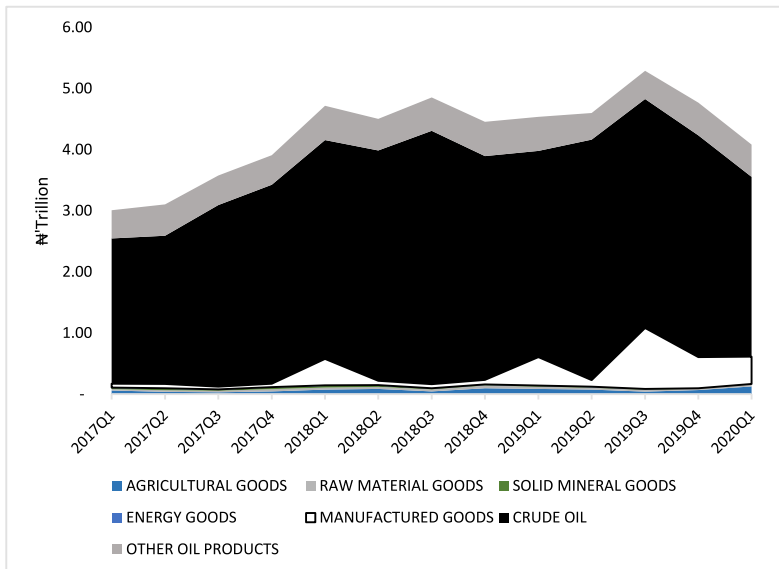
Source: National Bureau of Statistics

In terms of revenue composition, oil revenue has been the leading contributor to government revenue between 1981 and 2019, when it accounted for an average of 73% of total government revenue. However, looking at Figure 4, in recent times, between 2015 and 2019, the contribution of non-oil revenue has increased significantly, when it accounted for an average of 46%.

Having examined the sectoral compositions of banks' loans, GDP, export revenue, and government revenue using the available statistics, it is observed that the pattern of sectoral compositions of commercial banks' loans is not replicated in the sectoral composition of GDP and export. If the statistics presented in this section are anything to go by, they suggest that the loan

Figure 4: Structure of Government Revenue (1981-2019)
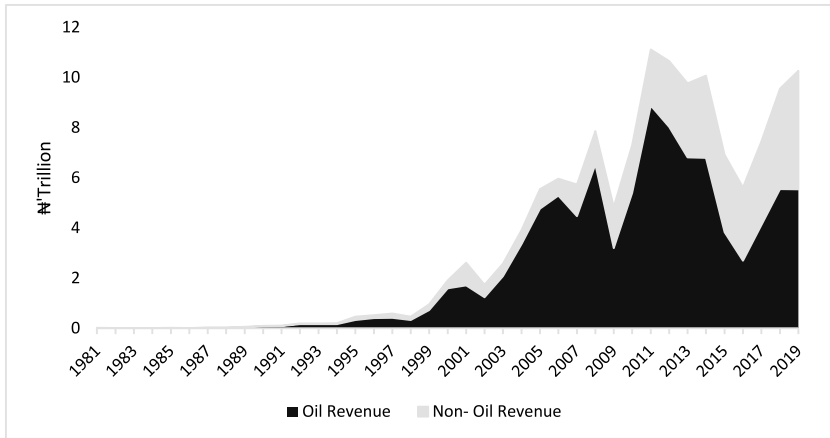
Source: CBN Statistical Bulletin (2019)

behaviour of commercial banks in Nigeria does not support sectors that help sustain economic growth in Nigeria.

Investment and Economic Growth in Developing Economies

One critical feature that has been observed for countries that achieved sustainable economic growth and development is capital accumulation; even though Neoclassical growth theories (Solow, 1956; Cass, 1965) suggest that there is a limit to economic growth that can be generated for stimulating capital. However, studies on the emergence of the Asian Tiger have suggested that capital accumulation played a crucial role in their growth and development (OECD, 2013). The question then is what capital accumulation strategies a developing country like Nigeria can utilize to catch-up with the developed economies. Development economics literature provides two alternative approaches to how

developing countries can build their capital stock to achieve sustainable economic growth. They are the balanced/big push and unbalanced growth model. The balanced growth model assumes that developing countries are characterized by low-income, and a small demand market (their access to the International market is low). Thus, to develop and sustain growth, they need to invest in multiple sectors simultaneously, which will help create markets for the output of various sectors (Resenstein-Rodan, 1943; Ranger Nurkse, 1952).

Hirschman (1958) however challenged the big push model on the premise that developing countries cannot afford to invest in multiple sectors due to their low-income and investment levels. Thus, to create a sustainable growth path, developing countries should devote investment toward sectors with high forward and backward inter-sectoral linkages.

An example is an investment in vehicle engine production. This will have a backward link to steel producers, which is a crucial input and have a forward link to the car production factories. Thus, direct investment in one production chain helps in building the entire value chain for a product. However, in the case of Nigeria, the population size of the economy and the signed African Continental Free Trade Area (AfCFTA) suggest that a huge market exists for the country to explore. The relevant question is how the country should plan its investment pattern to reduce its dependence on the oil sector and enhance the output of other sectors in the economy. Potential strategies are proposed in the next section.

Policy Recommendation
1. **CBN interventions in banks' lending activities should enhance the growth of key contributors (sectors) to GDP, export, and government revenue.** The CBN in recent times has requested banks to extend loans to certain sectors. For example, deposit money banks are to maintain a minimum of 65% loan to deposit ratio with priority being assigned to SMEs, retail, mortgage, and consumer lending. While the growth of these sectors is crucial for economic growth, the sectors that account for significant shares of GDP, export and government revenue, should also be given priority in

commercial bank lending, to avoid the risk of stunted growth in these sectors. For example, crop production which contributed 22% of GDP received less than 4% of banks' loans and the upstream oil sector which accounts for the majority of government revenue and foreign exchange earning received only 8% of bank loans.

2. **Government-led industrialization financing.** Sectors that can generate substantial revenue, employment, and foreign exchange earnings are required to put the Nigerian economy on a sustainable path. The industrial sector is a sector with the potentials to meet these three targets. The growth of industries in China, and the Asian Tiger economies were largely influenced by government intervention in providing adequate financing and a business enabling environment, to ensure rapid industrialization is achieved. Leaving financial markets to determine resource allocation will not achieve any significant industrialization. The high lending rate and the short-term nature of the loans offered by commercial banks restrain the ability of firms within the industrial sector to access funds. The government, therefore, needs to provide financial support and active monitoring for firms to engage in large scale manufacturing with a specific focus on textile, steel, and petrochemical.

The access to raw material and existing steel production facilities puts these manufacturing activities in the forefront. The government has successfully established joint ventures with the private sector in the oil and gas sector, it can equally apply a similar approach in the industrial sector.

3. **Utilize the excess oil fund for Industrialization.** The excess crude oil account is an example. This fund can be used to provide cheap and long-term funding support to firms in the manufacturing sector, rather than utilizing the fund to supplement government revenue shortfalls. With the current African Continental trade agreement, Nigeria has a lot to harness in producing and exporting industrial goods, as most African countries engage in the export of primary goods such as agricultural produce and natural resources.

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Achieving Sustainable Development Goal 8 - Decent Work and Inclusive Economic Growth: A Preliminary Analysis of Nigeria's Performance

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Abstract

One of the Sustainable Development Goals (SDGs) is to achieve inclusive and sustainable economic growth, productive employment and decent work for all – SDG 8. However, in Nigeria, unemployment and underemployment rate remain high, especially among the youth and women, with rapidly expanding informal sector. Over 20 per cent of the youths are not in education, training, and employment. These, among others, raised the concern on the progress of the country in achieving SDG 8 by 2030; hence, the need for a preliminary assessment of the country's performance. We adapted the methodology of Sustainable Development Solutions Network (SDSN) and the Bertelsmann Stiftung, using data from 2010 to 2017/2018 for eight SDG 8 indicators. The results reveal, among others, that on the aggregate, the country scored 44.9 per cent in SDG 8 performance level which can be ranked as low performance according to the SDGs rankings. Therefore, we recommend the need for conscious investment in technology and research and development (R&D) for more efficient and innovative production processes and techniques. Also, employment and skill acquisition programmes should be more of regional and state specific than centrally designed as "one-cap-fits-all". This will have far reaching effect in targeting and reducing unemployment in the country. Additionally, technical colleges and craft centres should be established and reinforced to absorb youths not in employment, education or training.

Introduction

The 17 Sustainable Development Goals (SDGs) adopted in 2015 were designed with the ultimate objective of improving the entire living condition and welfare of humans across the globe for better and productive life, both for the current and future generations. SDG 8 is crucial to achieving the objective because decent work and inclusive growth ensure improved livelihoods and better living conditions (Rai et al., 2018). The ILO report in 2019, revealed that over 170 million people are unemployed globally, due to the increasing rate of unemployment in Sub-Saharan Africa and Asia (ILO, 2019). Also, about 140 million people are underemployed (61% are women) in 2018, in addition to high level of informal employment; an indication of lack of economic security and decent work.

In Nigeria, the number of unemployed persons increases with decreasing employment generation (Ajakaiye et al., 2015). From 2010 to 2018, the total number of employed persons increased only by 12.4 percent (NBS, 2018). Youth unemployment rate was 36.9 percent in 2018, with female constituting over half this rate. In 2016, over 20 percent of youths were not in education, training, and employment (NBS, 2018). The informal sector is rapidly expanding and stood at 41.4 percent of GDP in 2015 (NBS, 2016). These negative indices define the living conditions of the people. Efforts have been made by successive administrations in the country through policies and programmes to arrest these negative indicators; however, there seems to be no significant improvement. Hence, this study assesses the performance of the country in achieving SDG 8 by 2030.

Conceptual Clarification

TThe United Nations broadly conceived SDG 8 as a goal to "Promote inclusive and sustainable economic growth, employment and decent work for all". The Goal is often referred to as "decent work and inclusive economic growth" (Rai et al., 2018), hence, a conceptual clarification of the two concepts (decent work and inclusive growth) is essential (Masdonati et al., 2019).

ILO defines decent work as access to "employment opportunities; adequate earnings and productive work; decent working time; combining work, family and personal life; work that should be abolished; stability and security of work; equal opportunity and treatment in employment; safe work environment; social security; and social dialogue, employers' and workers' representation" (ILO, 2013). UNESCO conceives decent work as employment that "respects the fundamental rights of the human person as well as the rights of workers in terms of conditions of work safety and remuneration, [and] respect for the physical and mental integrity of the worker in the exercise of his/her employment" (United Nations, 2018).

On the other hand, inclusive growth connotes equitable participation in economic opportunities and human capital

development; environmental and social protection; and food and property security for every individual in society (Rai et al., 2018). The IMF opined that inclusive growth embraces sustained extensive distribution of the benefits and the proceeds from economic growth across sectors in per capita terms (IMF, 2017). The inclusive growth cycle in Figure 1 gives more insight into the concept.

Figure 1: Inclusive Growth Cycle
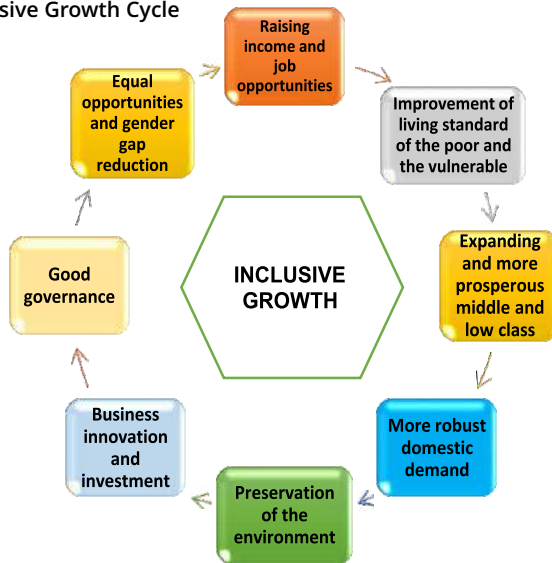
Source: Adapted from MasterCard Centre for Inclusive Growth

Policy Efforts by Government: Past Administrations

The National Directorate of Employment (NDE)

This was statutorily established as an employment agency to tackle unemployment issues in the country through different intervention programmes. NDE intervention programmes are largely: (i) Vocational Skills Development (VSD); (ii) Small Scale Enterprises (SSE); (iii) Rural Employment Promotion (REP); and (iv) Special Public Works (SPW) (NDE, 2010, 2016). Despite its impressive programme, the performance of NDE in fulfilling its mandate remains questionable as unemployment rate continues to rise in the country. There has been a decline in the number of beneficiaries, and most programmes are gender bias (see, Figure 1 and 2).

National Financial Inclusion Strategy (NFIS)

The NFIS was established in 2012 with the target to increase financial inclusion rate to about 80 percent by 2020 (NFIS, 2019). Also, it has the target of increasing access to payment services by Nigerian adults; the number of people with access to savings and credit; the number of financial services channels and providers; and the number of Automated Teller Machines (ATMs) (NFIS, 2019). However, a report by Enhancing Financial Innovation and Access (EFInA) revealed that 60 percent of the adult

Figure 2: NDE Intervention Programme (in '000)

	VSD	SSE	REP	SPW
2010	57.6	5.9	4.4	5.2
2016	15.6	4.5	1.7	4.1
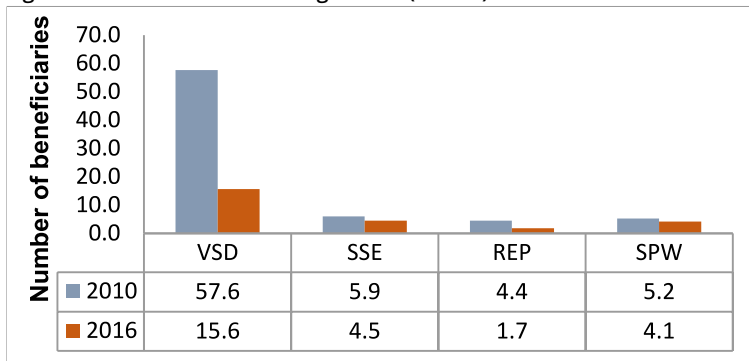
Source: Authors' Analysis using data from NDE Annual Report (2010 and 2016)

Figure 3: NDE Intervention Programme Beneficiaries by Sex, 2016
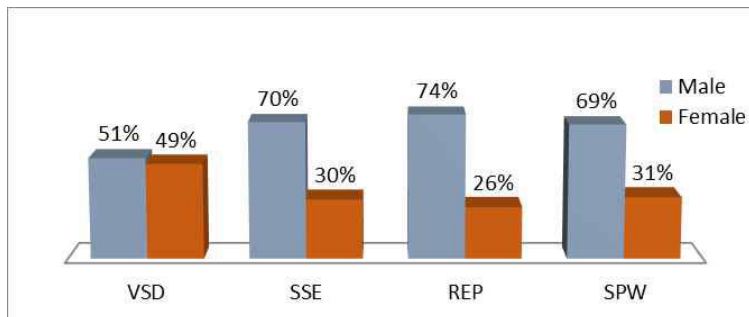
Source: Authors' Analysis using data from NDE Annual Report (2010 and 2016)

population do not have mobile money wallet or bank account in 2018. Also, more females than males are being financially excluded, and exclusion is more in rural areas (78.5%) than in urban areas (21.5%) (EFInA, 2018). These cast doubts on the realization of the NFIS targets. Other interventions by past administrations that intersect with the targets of SDG 8 are the National Enterprise Development Programme (NEDP), Nigeria Industrial Revolution Plan, among others.

Policy Efforts: The Present Administration

The present administration appointed a Senior Special Assistant on SDGs, with the mandate of coordinating SDGs-related interventions, and tracking and reporting progress and performance *(Federal Republic of Nigeria, 2017)*. These interventions target education, health, women, youth and social development, job creation and youth empowerment, etc. Over 15 million direct jobs are expected to be created between 2017 and 2020 *(Federal Ministry of Budget & National Planning, 2017)*.

The principle of "leaving no one behind" is another policy target that is in congruence with the SDGs. This principle is directed towards increasing social inclusion and safety net of vulnerable groups and the poor in the country. Some of the programmes initiated include: Conditional Cash Transfer Programme, Home-Grown School Feeding Programme, N-Power Programme, Government Enterprise and Empowerment Programme (GEEP)/Market Women Money (ibid).

Methodology

The study adapted the methodology of the Sustainable Development Solutions Network (SDSN) and the Bertelsmann Stiftung, for monitoring the performance of countries on the SDGs (Sachs et al., 2019; SDSN, 2019). Due to paucity of data, we focused on eight of the twelve targets of the Goal, with eight indicators as the variables, using data from 2010 to 2017/18. Values for each indicator were normalized using the Min-Max method (Sachs et al., 2019). This is represented as:

$$N_{it} = \frac{X_{it} - Min(X)}{Max(X) - Min(X)}$$

N, i, t, X, Min(X), and *Max(X)* are the normalized value, indicator, period, the original value, minimum and maximum values, respectively. Normalizing the indicators provides a common measuring metric through which performance evaluations becomes possible. The percentage of the normalized scores are further determined, which show the level of achievement of the Goal by the country on the aggregate (Sachs et al., 2019). Threshold values provided in the Sustainable Development Report 2019 and the Africa SDG Index and Dashboard Report 2019 (see Table 4) are used for comparison. Comparing an indicator's threshold value with its actual value shows the performance of the indicator. Data for this study were sourced from World Development Indicator, World Bank; United Nations database, International Labour Organization, and the Central Bank of Nigeria bulletin.

Results and Discussion

Table 1 shows the result of the performance score. Indicators are either "decreasing", "stagnating", or "moderately improving" based on scores below, equal, or above 50 percent, respectively. Indicators with score above 75 percent are considered "on track" (achieving) (Sachs et al., 2019).

Table 1: Normalized Scores of Indicators

S/n	Indicators	Scores		Period
1	Annual growth rate of real GDP per capita (%)	55.1	↗	2010-2018
2	Annual growth rate of real GDP per employed person (%)	54.1	↗	2010-2018
3	Domestic material consumption per capita, by type of raw material (tonnes)	32.9	⬇	2010-2017
4	Unemployment	35.7	⬇	2010-2018
5	Unemployment 15-24 (Youth)	35.6	⬇	2010-2018
6	Number of commercial bank branches per 100,000 adults	50.7	↗	2010-2017
7	Number of automated teller machines (ATMs) per 100,000 adults	53.7	↗	2010-2017
8	Proportion of adults with an account at a bank or other financial institution or with a mobile-money-service provider (% total adults)	41.6	⬇	2010-2017
	Sustainable Development Goal 8 (Aggregate)	**44.9**	⬇	

Note: Decreasing ⬇ Stagnating ⇨ Moderately Improving ↗ On Track or Achieving SDG ⬆
Source: Authors' Analysis

Annual growth rate of real GDP per capita scores the highest (55.1%) while domestic material consumption per capita scores the lowest (32.9%). All the indicators for unemployment are "decreasing". At the national level on the aggregate, the performance score is 44.9 percent, showing that the country is less than half way to achieving Goal 8. This result validates the global and continental rankings of the country in the 2019 SDG index reports; 159th (of 162nd) with 46.4 per cent, and 43rd (of 52nd), respectively (Sachs et al., 2019; SDSN, 2019).

Table 2: Threshold for Indicators

Indicators	Best	🟢	🟡	🟠	🔴
Annual growth rate of real GDP per capita (%)	4	x≥0	0>x≥-1.5 (x = -0.7)	-1.5>x≥-3	x<-3
Unemployment	5	x≤5	5<x≤7.5	7.5<x≤10	x>10 (x = 22.6)
Youth not in education, training and employment	8.1	x≤10	10<x≤12.5	12.5<x≤15	x>15 (x = 21.4)
Proportion of adults with an account at a bank or other financial institution or with a mobile-money-service provider (% total adults)	80	x≥70	70>x≥60	60>x≥50	X<50 (x = 27.3)
🟢 SDG achievement	🟡 Challenges remain		🟠 Significant challenges remain	🔴 Major challenges remain	

Note: Values in parenthesis are for the actual indicators
Source: Authors' Analysis

Also, the performance of the indicators was evaluated using their threshold values. From the result, all the indicators are having challenges in meeting the goal (see Table 2). Unemployment, youths not in education, training and employment, and proportion of adults with an account at a bank have major challenges in achieving SDG 8. This result shows that the country is not making sufficient progress in achieving the SDG 8.

Conclusion and Policy Recommendation

In conclusion, results from the study reveal that the country's performance in achieving SDG 8 is low. Both the performance scores of the individual indicators and the aggregate score show low performance. The threshold results also reveal similar outcome. This implies that the various policies and programmes of the government, directed towards achieving SDG 8, are either inefficient or insufficient. Based on the findings, we offer the following policy recommendations:

1. Government should consciously invest in human capital, technology, and research and development (R&D) to diversify the economy by providing necessary infrastructure to enhance the performance of non-oil sectors. This will help improve labour productivity, and more efficient and innovative production processes and techniques. Hence, will culminate increase in economic growth.

2. Employment and skill acquisition programmes should be more of regional and state specific than centrally designed as "one-cap-fits-all". This will have targeted effect in reducing unemployment in areas with higher rates of unemployment in the country.

3. Technical colleges and craft centres should be established and reinforced to absorb idle youths – not in employment, education, or training. This will enable them acquire the necessary skills and knowledge to create value for their lives and society at large.

4. Stringent requirements to financial inclusion should be relaxed by financial institutions so as to increase the number of adults with access to financial services.

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Economic Growth, Unemployment and Poverty in Nigeria

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Abstract

In an attempt to affirm the theoretical linkage between economic growth, unemployment, and poverty surge in Nigeria, this study relies on Pearson correlation, Granger causality test, and the impulse response function (IRF). The result of the trend and correlation analysis supports a weak negative relationship between economic growth and poverty (-0.21) and then economic growth and unemployment (-0.36). A moderate negative relationship exists between poverty and unemployment rate. Surprisingly, the Granger causality test and impulse response function conducted support the findings above since it reveals that growth is pro-poor; while the latter reveals that unemployment and poverty do not respond to shock in economic growth. In line with the foregoing, the study concludes that output growth is exclusive of the poor. Thus, there is a need for stable macroeconomic policies that would ensure equal distribution of income, which attracts the poor and unemployed into the mainstream, thus promotes inclusive growth.

Introduction

Nigeria like many other developing economies in the world is in the pursuit of sustainable development with focus on attaining a high level of economic growth, providing a conducive macroeconomic environment for both domestic and foreign investments, creation of jobs, and poverty reduction. This has led to the aggressive adoption of poverty alleviation and unemployment reduction policies by the Nigerian government. Some of the policies adopted by the government include the National Home-Grown School Feeding Program for children with the aim of feeding over 24 million school children. This has encouraged poor parents to send their children to school just to enjoy free meals in school. Also, policies like N-Power has helped in poverty and unemployment reduction by creating jobs for the youths.

Other policies include the Conditional Cash Transfer Program and Trader Moni initiatives. These policies have been beneficial and have helped in lifting some of the citizens out of the poverty line, yet, much needs to be done as the economy still shows signs of sluggishness in its growth trajectory since the 2016 recession. Nigeria's growth rate in 2019 stands at 2.3% which is below the projection of 4.5% by the Economic Recovery and Growth Plan (ERGP).

According to the World Bank report, Nigeria was ranked the highest country with poor population in 2018 and has been projected to increase by more than 30 million by 2030 which would account for about 25% of the world's extremely poor population. Similarly, the unemployment rate is on the rise and is estimated at 23.1% as of 2018.

Several other factors such as low inflow of foreign investment, declining foreign reserve, rising inflationary pressure, fiscal indiscipline, and rising debt levels have plagued the economy and have been identified to be equally responsible for the slow recovery growth path of the country. The current position of the Nigerian economy is highly fragile and it is vulnerable to both domestic and external shocks such as oil price fluctuations and tardiness in growth response. This clearly suggests that policymakers and the government need to adopt a different approach from the conventional and existing poverty alleviation and unemployment reduction policies to adequately tackle the social menace. With the poor growth path, financing poverty reduction strategies becomes almost impossible and this renders most of the masses unemployed.

The study thus seeks to examine the relationship between unemployment, poverty, and economic growth in Nigeria. The study seeks to answer the question if Nigeria's economic growth can efficiently reduce poverty and unemployment menace?

Empirical literature documents divergent views on the relationship between unemployment and economic growth in Nigeria. While some studies opined a positive relationship (Ademola & Badiru 2016; Akeju & Olanipeun 2014; Arewa & Nwakanma, 2012); others observed a negative relationship (Njoku & Ihugba, 2011) and others, found mixed evidence (Sodipe, 2008). Similarly, the relationship between poverty and unemployment in Nigeria remains inconclusive (Hassan, 2015; EPAR, 2016; Aigbokhan, 2008; Ijaiya, Ijaiya, Bello, & Ajayi, 2011; Oyegoke & Wasiu, 2018). This study provides new empirical evidence on the actual relationship between these variables considering the recent slow pace in growth. The study further suggests policies that can ensure that the gains from growth translate into unemployment and poverty reduction. The study uses data available for the period 1991 till 2019. The remaining section of this paper reviews relevant literature; thereafter, the methods employed are described, this is followed by findings, policy recommendations, and conclusion.

Review of Relevant Literature

It is very crucial to state that we do not intend to provide an exhaustive review of literature, but rather, we present selected studies considered crucial to our study. Akeju and Olanipeun (2014) tested the validity of Okun's law in Nigeria by examining the relationship between unemployment rate and economic growth, using Error Correction Model (ECM) and Johansen cointegration. Their findings showed a positive relationship between unemployment and economic growth in Nigeria. They also found a short and long-run relationship between unemployment rate and output growth in Nigeria. They, therefore, advocated for increasing foreign direct investment (FDI) attraction that has

the possibility of reducing the high rate of unemployment in the country.

Conversely, Airi, Ounakpo, and Anebi-Atede, (2016) explored the impact of unemployment on the Nigerian economy from 1980 to 2010 using the ordinary least squares method (OLS) and they found that unemployment has a negative effect on GDP of the economy. In the same vein, Imoisi, Amba, and Okon (2017), examined the impact of unemployment on economic growth in Nigeria using the ordinary least square (OLS) multiple regression from 1980 – 2016. They found that unemployment, population, and labour force significantly impact Nigeria's economic growth, while minimum wage has no significant impact. They recommended that job creation should be a primary objective of the government, subsidy should be given to the private sector, and the labour market should be deregulated. Lastly, Onwachuwu (2015) employed the OLS approach to examine the impact of unemployment on economic growth in Nigeria spanning from 1985 to 2010. They found that unemployment has no significant impact on Nigeria's economic growth.

Hassan (2015) examined the impact of gross domestic product (GDP) growth rate on poverty reduction in Nigeria from 1986-2012. They employed the OLS regression and found a positive relationship between unemployment rate (which was used as a proxy for poverty) and GDP. They, therefore, recommended that key sectors like

agriculture and industries should be prioritized in generating more employment and absorb more labour, and thus reduce poverty in the country.

More recently, Dauda (2016) examined the paradox of rising poverty amid high economic growth in Nigeria. They found that jobless growth, a non-pro poor growth, and failure of poverty alleviation initiatives are the reasons for this absurdity. The author recommended that priority should be placed on structural transformation which necessitates good governance, anti-corruption practices, and provision of social protection for the poor and vulnerable.

Research Methods

This section explains the empirical strategy employed in establishing the relationship that exists between economic growth, unemployment, and poverty in Nigeria; three approaches are employed in achieving this. The first method employed is by conducting a correlation statistic among economic growth, unemployment, and poverty. The Pearson correlation coefficient ranges between -1 and 1 with -1 interpreted as a perfect negative relationship between the bivariate variables; 1 is interpreted as a perfect positive relationship; with 0 implying no relationship exists between them. The second approach is by conducting a long-run causality test as developed by Granger (1969), and the short-run causality test between the bivariate variables. The causality test seeks to establish whether economic growth causes a change in

unemployment or the reverse is the scenario; this causality test is also conducted between other variables (economic growth, unemployment, and poverty). The third approach employed is the estimation of the impulse response function (IRF) together with a variance decomposition (VDC) as developed by Sims' (1980) Vector Autoregression model. The IRF and VDC will help to show how poverty and unemployment respond to shocks or sudden changes in economic growth.

Economic growth is measured by estimating the change in real gross domestic product for the Nigerian economy while

unemployment rate is measured using the total unemployed as a percentage of total labour force using the International Labour Organisation's (ILO's) model. Poverty is measured using the poverty headcount ratio at $1.90 a day. All the data are sourced from the World Development Indicator (2019).

Analysis and Findings

This section evaluates the data retrieved, and presents the result of the analyses carried out. The purpose of presenting this analysis is to help in formulating policies that will aid the poverty cum unemployment reduction.

Figure 1: Economic Growth, Unemployment and Poverty Headcount Ratio
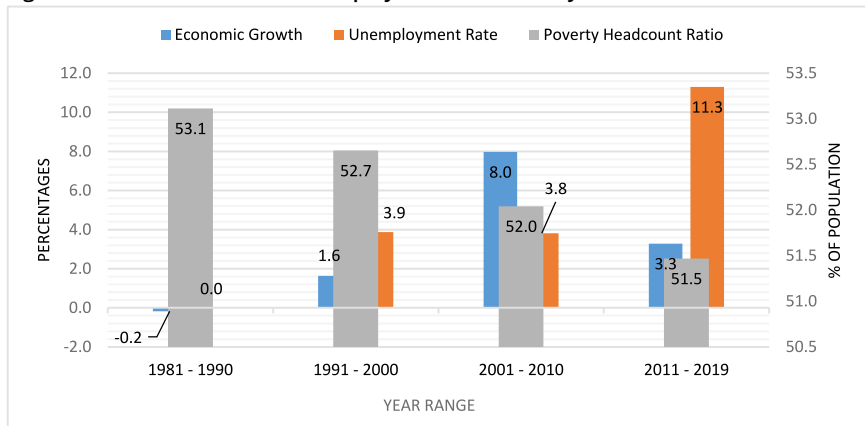
Source: World Development Indicators (2019)

Figure 1 shows the trend of economic growth rate between the periods. It is evident that between the periods 1981 till 1990, the economic growth rate contracted by 0.2% within the decade and as at then, about 53.1% of the citizens were living below

$1.90 per day while no information was available for unemployment rate. The economy experienced positive growth between the period 1991 and 2000 by expanding with 1.6% while this reduced the number of people living below $1.90 per day

by meagre 0.4%. As at the period between 2011 and 2019, the growth declined to 3.3% from 8% recorded between 2001 and 2010; the poverty ratio was 51.5%; while 11.3% of the labour force were unemployed.
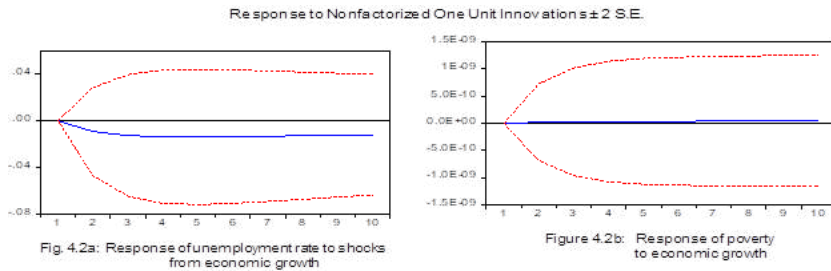
Further test done is the correlation between the measures, and the result shows that there is a weak negative relationship between economic growth and poverty (-0.2); economic growth and unemployment rate (-0.36); while there is a moderate negative relationship between poverty and unemployment rate. The implication of this suggests that economic growth is a weak repellant of unemployment menace and poverty incidence. The Granger causality test conducted reveals that economic growth does not cause a change in unemployment rate or poverty reduction, neither does any of them cause a change in economic growth. This decision was reached as the probability value of the F-statistics were above 5%, thereby failing to reject the hypothesis of no relationship. This result further strengthens the weak relationship found between growth and unemployment cum poverty.

The result from Figure 2 reveals that unemployment responds negatively when there is a shock in economic growth and this is felt mostly after the 4th period while it reveals that poverty does not respond to shock in economic growth for the entire period. The implication of these findings is that poverty headcount ratio does not respond to shocks in economic growth except unemployment rate. Conclusively, the economic growth in Nigeria experienced thus far cannot cause changes in poverty reduction.

Conclusion

Results support the presupposition that economic growth in Nigeria is pro-poor. This is because, the aforementioned results show that unemployment surge and poverty head count respond weakly to increasing output growth. However, it is only employment that moderately influences poverty. Similarly, the impulse response function upholds that unemployment and poverty do not respond to shocks in economic growth. Therefore, the study concluded that within these periods of examination, growth is yet to be inclusive of the poor and unemployed groups. Drawing from this intellectual exposition, it is pertinent for government and other stakeholders to fashion out workable framework, timelines and trajectory through which the poor and unemployed can be driven into the mainstream sectors; hence, transforming economic growth into one that is inclusive via the underlining pathways.

Figure 2: Impulse-Response Function of Poverty, Unemployment and Growth

Response to Nonfactorized One Unit Innovations ± 2 S.E.

Fig. 4.2a: Response of unemployment rate to shocks from economic growth

Figure 4.2b: Response of poverty to economic growth

Note: The first graph shows the response of unemployment to growth shocks, while the second graph shows the response of poverty to growth shocks.
Source: Author's Estimation

Policy Recommendation

Based on the findings from this study, the following recommendations are highlighted:

1. The surge of unemployment and poverty can be ameliorated if the Federal government supports value creation in mainstream sectors of the Nigerian economy which employs large labour forces, such as the agriculture and industry sectors, in order to make growth pro-poor.

2. The monetary and fiscal authorities should ensure a good blend of both sound fiscal and monetary policies aimed at creating a conducive environment for private and public investments to thrive; hence, promoting inclusive and transformative growth.

3. Also, there is a need for policy stability and continuity especially one that would ensure equitable distribution of income and opportunities between the rich and poor.

4. Furthermore, to reap the benefits of a positive external shock, there is a need to improve on the level of competitiveness and productive capacity within the country.

5. It cannot be overemphasized that investment in basic infrastructure such as power and roads especially in the rural settlements would be a tactical strategy at promoting inclusive and sustainable growth in Nigeria.

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Growth and Poverty Dynamics in Nigeria: Evidence from Panel Survey

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Abstract

We examined the relationship between household-level poverty dynamics and patterns of growth using a panel dataset comprising two waves. Analysis reveals that households that cultivated their own land relatively live more in the urban areas. Since households that cultivated their lands and reside in urban areas are associated with reduced likelihood of being chronically poor, the group pattern of growth will be for households to migrate to urban areas to partake in the opportunities created by the Agricultural transformation programmes. In addition to mobility, since households that reside in urban areas with secondary education are associated with reduced likelihood of being chronically poor and impoverished, the growth pattern is for rural dwellers to be educated up to the secondary level and then migrate so as to fully participate in the transformations in the urban sector. Also, there is evidence that growth is constrained by the presence of chronic poverty through non-farm employment, the growth pattern for households in the rural areas will be to improve the activities that do not constitute primary agricultural production so they can benefit from opportunities in the rural non-farm economy. But to benefit from this rural non-farm economy, the poor must overcome many policy and resource constraints. These include limited access to connectivity, education and relevant skills training, finance and legal rights to land. Other constraints are associated with exclusion based on gender, age or identity (World Bank, 2017). The rural non-farm sector can, and often does, contribute to economic growth, rural employment, poverty reduction, and a more spatially balanced population distribution (Lanjouw, 2001). Rural non-farm activities account for 35 to 50 percent of rural income in developing countries, and for the landless and the very poor, sustainable income gains at the household level are associated with additional wages earned from non-farm activities (World Bank, 2017).

Introduction

Nigeria like other countries in Africa has experienced real growth in the past few years but not enough poverty reduction has been recorded. However, countries that do well on poverty reduction take agriculture and the livelihoods of smallholders especially Africa's millions of women farmers seriously – through more relevant agricultural research, smallholder friendly infrastructure and improved marketing. **(Arndt, Demery, Mckay, & Tarp, 2015)** in their study of growth and poverty in Sub-Saharan Africa classified countries into four groups, depending on their response to growth and extent of poverty reduction. Nigeria falls under the second group of relatively rapid economic growth but seemingly limited poverty reduction.

They argued that Nigeria failed to improve non-monetary indicators despite massive oil revenues for much of the period. They also stated that the unfocused state of Nigeria's statistics in relation to monetary poverty prevented solid conclusions to be made as regards the nexus. We were not immediately able to comment on their claims until we are able to establish a relationship between patterns of poverty dynamics and growth incidence amongst the poorest.

This paper seeks to clear the doubts raised above by the authors by answering the following questions:

1. What does the analysis of household panel data tell us about the nature, dynamics and magnitude of growth amongst the chronically poor, those escaping poverty and those becoming impoverished?
2. What relationships exist between patterns of poverty dynamics as measured by panel data, and growth incidence amongst the poorest, as measured through national growth incidence curves?
3. What is the impact on growth of chronic poverty?
4. What are the major policy and non-policy factors which lie behind the patterns of growth incidence and poverty dynamics observed?
5. What policy can be recommended to the government based on the analysis?

In answering the above questions, we employed the Living Standard Measurement Survey (LSMS) data, a nationally representative panel data covering 5,000 households in waves one and two. Generally, we seek to examine the types of poverty dynamics/trajectories and growth that is experienced in Nigeria; what have these dynamics and trajectories been attributed to; why do some households become poorer or why do some households who were non-poor in a period slip into poverty in another period; why are some households able to escape poverty and remain out of it over a medium-term; and why do some remain in poverty at all points in time?

Specifically, we aim to study how different factors explain the trajectories of poverty in Nigeria. Our findings showed that Household with cultivable land not utilised have a greater risk of being chronically poor as some household own land that were not cultivated. Further analysis shows that households living in well-connected areas like the urban areas are all associated with cultivating their own land. In essence, our advice for households with land that are not cultivated — that live in the urban areas — is that they should, by all means, increase the number of persons in their home to make good use of the advantage of large household size for agricultural purposes.

In seeking to answer the questions above on the factors that lead to household's impoverishment and chronic poverty relative to escape, we analysed the data and found that an increase in log of asset value makes household less likely to be chronically poor and descend into poverty relative to escaping poverty. An increase in rooms per person is associated with a reduced risk of chronic poverty relative to poverty escapes. An increase in improved sanitary toilet is associated with a reduced likelihood of being chronically poor and descending into poverty relative to escapees. Also, an increase in potable water for households is associated with a reduced likelihood of descending into poverty. However, households with limited access to electricity have an increased chance of descending into poverty.

Regarding household attributes, an increase in household size is associated with a higher risk of chronic poverty and impoverishment relative to an escape from poverty. Increase in the share of dependents is also associated with an increased risk of being chronically poor and descending into poverty. Head with primary education have a greater risk of falling into poverty in rural areas. In the area of activities, head in non-farm employment have an increased likelihood of descending into poverty and a reduced likelihood of being chronically poor. Households that have taken loan have a reduced likelihood of being chronically poor and descending into poverty. Households that participate in a savings group have a reduced likelihood of being chronically poor in the whole and rural samples.

As regards context, households in all regions except the south-west have the likelihood of being chronically poor and impoverished using the whole sample and rural subset. For the urban subset, households in the north-west and south-east have an increased likelihood of descending into poverty. In looking at the impact of negative poverty dynamics, like chronic poverty and impoverishment, on growth, the study re-assessed the non-oil sector sources of growth associated with these negative poverty trajectories. We found that for the gains in chronic poverty to be achieved and reduced drastically, adequate investments in the education sector, non-farm activities should be prioritized. This is because an increase in investment in education is associated with a reduced likelihood of being chronically poor and an increase in education is associated with reduced likelihood of descending into poverty. Further, an increase in non-farm activities brings about a reduced likelihood of being chronically poor. Also, we found that if those descending into poverty must be drastically reduced, transportation sector must be a priority because an increase in transportation costs is associated with an increase in chances of descending into poverty.

Descriptive Study[2]

Macro level: Growth Incidence Curve (GICs)

We conducted sensitivity tests using the uniform distribution for the data generating part of the graphs. We then created GICs using the data since panel data years overlap with the GIC years. In addition, consumption data are in disaggregated form leaving us to base our decision on this data. The results from the analysis are given in graphical form below as:

Figure 1: Poverty Dynamics in Nigeria (2010-2013)
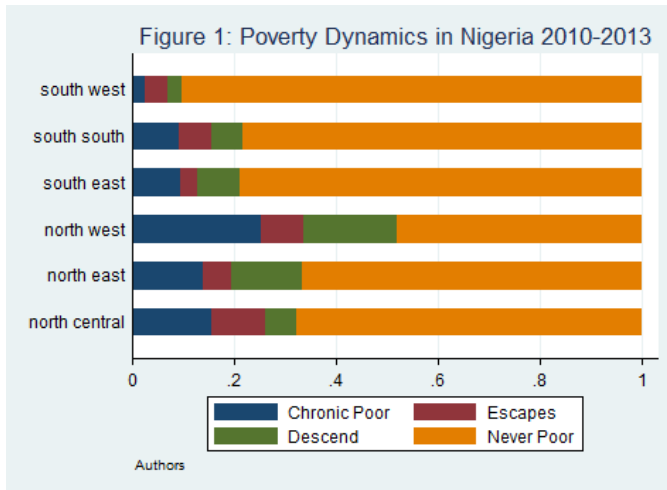

Source: Authors

Table 1: Poverty Trajectories in Nigeria

	Chronic poor	Descents	Escapes	Never poor
National	11.87%	8.72%	6.27%	73.14%
Rural	18.14%	12.41%	8.57%	60.88%
Urban	2.70%	3.33%	2.91%	91.06%
North Central	15.50%	6.02%	10.69%	67.80%
North East	13.80%	13.97%	5.70%	66.53%
North West	25.22%	18.54%	8.33%	47.91%
South East	9.63%	8.37%	3.14%	78.86%
South	9.13%	5.97%	6.50%	78.40%
South West	2.52%	2.78%	4.37%	90.34%

Source: Authors

Figure 2: Poverty Trajectories in Nigeria (2010-2013)
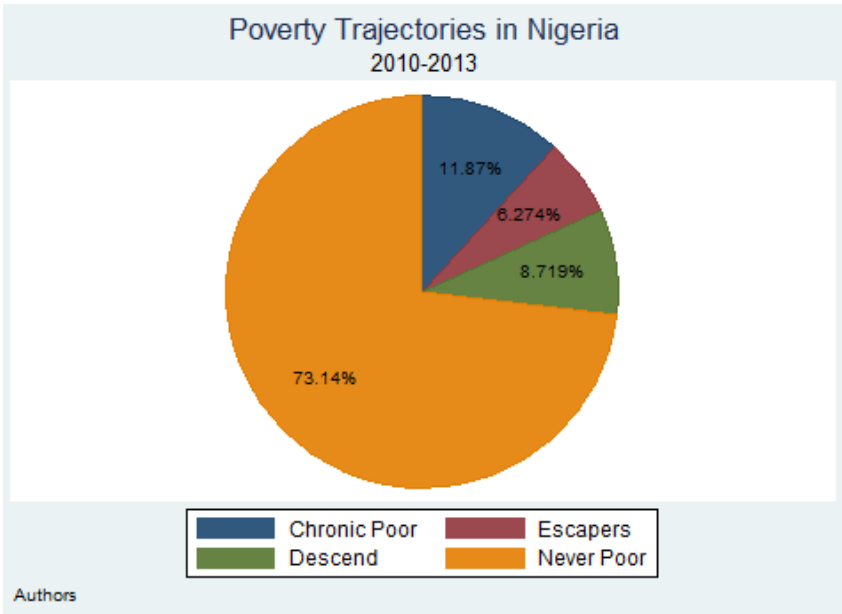
Source: Authors

Macro level: Growth Incidence Curve (GICs)

We conducted sensitivity tests using the uniform distribution for the data generating part of the graphs. We then created GICs using the data since panel data years overlap with the GIC years. In addition, consumption data are in disaggregated form leaving us to base our decision on this data. The results from the analysis are given in graphical form below as:

Figure 3:
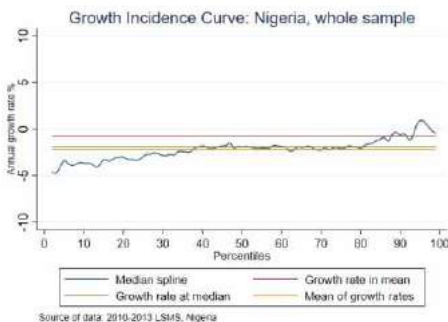
Figure 4:
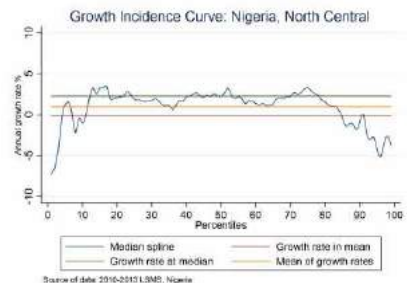
Figure 5:
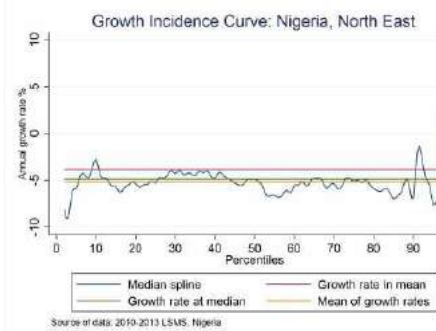
Figure 6:
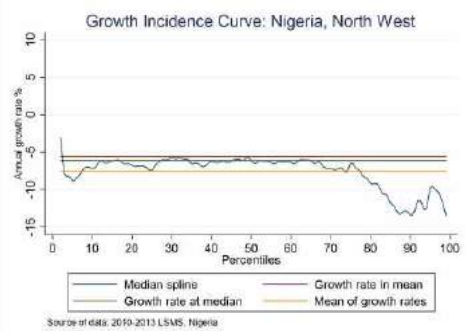
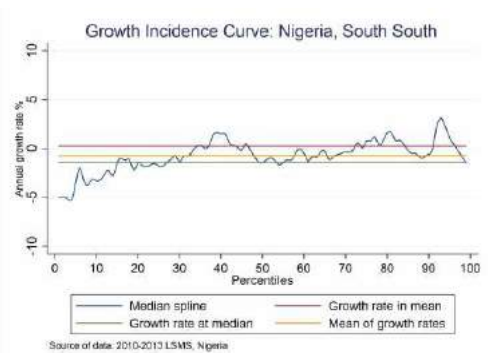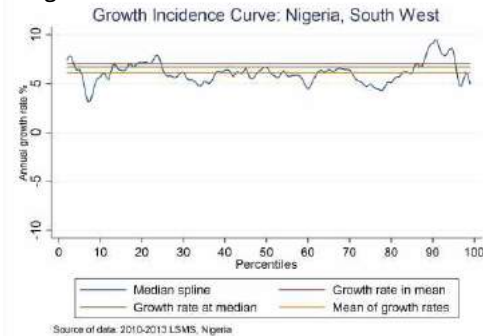**Figure 7:**
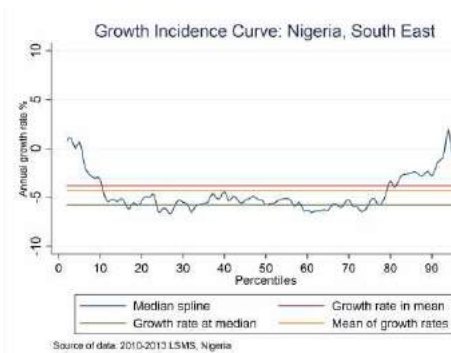
Figure 8:

Figure 9:

Conclusion

In the whole sample, approximately 12 percent of the households are chronically poor, six percent are escapees, nine percent descended into poverty, while 73 percent were never poor. By region, approximately 16 percent of the households in the north central are chronically poor, 11 percent escaped, six percent descended, while 67 percent were never poor. Further, three percent of the households in the south west were chronically poor, four percent escaped, three percent descended, while 90 percent were never poor. In addition, factors that help households move out of the chronic nature of poverty include household size, share of dependants, and region of residence. Factors contributing to low impoverishment include electricity, education, household size, share of dependents, non-farm employment and region of residence (north-east, north-west, south-east and south-south).

Furthermore, Nigeria should not only industrialise[3] but also focus on all key sectors (Education and Transportation)[4] that will not only help reduce the nature of chronic poverty and short-lived poverty escapes experienced by households, but also inequality, thereby spreading the benefits of growth[5] across the country. This leads us to the discussion of structural transformation[6] that allows inclusive growth. Such structural transformation must not be rapid to avoid growth acceleration episodes thereby hindering growth maintenance – which is paramount (Sen, 2014). The process of structural transformation takes place at many levels. At one end, it is the result of decision-making of individual households or even household members. At the other end, government policies can affect the direction and speed of transformation (Beck, 2015). No doubt, Covid-19 related shocks would cause some economic fluctuations that may slow down economic growth in the short term. However, preliminary in-depth study by (Farayibi & Asongu, 2020) on the impact of the pandemic show insignificant[7] decline on macroeconomic variables like inflation, employment, exchange rate, GDP growth, among others. Besides, deliberate policy actions by the Nigerian government like the recently launched Economic Sustainability Plan (ESP) are likely to ensure early and full recovery of the economic growth trend.

Policy recommendations[8]

1. Encourage households in the rural areas to own more assets to facilitate escapes from poverty and prevent descents into poverty. However, their counterparts in the urban areas are encouraged to own less assets since findings show that urban dwellers that own lesser value of assets have a reduced likelihood of being chronically poor and impoverished.

2. Innovate around the power sector so that the protracted problem in the electricity sector can be resolved in a timely manner. This innovation can be through promotion of policies and interventions in the area of access to basic infrastructure services for the poor. In this regard, while the current federal government investments on strengthening and extending electricity transmission infrastructure is commendable, similar efforts should be made in deploying renewable energy sources to the rural communities across the regions. This will encourage communication firms to upgrade and extend internet connectivity facilities[9] to the rural communities as well. This is particularly important given the emerging new ways of doing things occasioned by the current Covid-19 pandemic. The rural communities must not be left behind in the emerging new normal where acquisition and use of more digital skills would be required.

3. Household size is critical to both reducing chronic poverty, and descents into poverty in the whole and rural sample. To this end, we recommend women empowerment and education since studies have shown that highly educated women tend to have less children[10].

4. Education policy makers need to reflect on the association between completing primary education and impoverishment. Deliberate investment[11] in higher levels of education is critical to ensuring human capital development; as households where head has completed primary education alone are more likely to descend into poverty. In light of the unfolding new normal occasioned by Covid-19, there should be greater embedding of digital skills[12] and multi-media technologies across the different tiers of education in the country.

5. Encourage more households to participate in savings groups and take a loan so that the gains in escaping poverty and preventing descending into poverty can be maintained in the long-term.

6. Paradigm shift of focusing on households[13] in all regions except the south-west should be priority so that the reduction of chronic poverty and impoverishment can be achieved in the long run.

7. Massive investments in non-farm activities that are critical sources of additional income for the poor, so that chronic poverty can be reduced. Within the rural population, households that don't have some form of non-farm income tend to be poorer (World Bank, 2017).

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END NOTE

[1]Institut de Mathematiques et de Sciences Physiques (IMSP), Porto Novo and Institute for Development Studies (IDS), University of Nigeria Enugu Campus.

[2]Poverty trajectories examined include Never Poor, Descend (Impoverishment), Chronic and Transitory Escapes. Never Poor refers to households that stayed out of poverty. Impoverishment refers to the process whereby a poor person or household becomes poorer, or where someone who is non-poor slips into poverty. Chronic poverty refers to people or households who remain living in poverty. Transitory poverty escapers are those households that used to live in poverty and succeeded in escaping poverty.

[3]Exchange rate policy that has traditionally been thought of as a macroeconomic policy is also an industrial policy and it is true too of other aspects of macroeconomic policy. Economies that rely on monetary policy for macroeconomic stabilization are, simultaneously, affecting the economies' sectoral allocations, for example, relative to what they would be if the government relied more on fiscal policy (Stiglitz, 2015).

[4]For instance, in the Transportation sector, the uncertainty that brings about increase in descending into poverty when investment in this sector is increased should be clarified by transparently reforming the sector and working towards a transport system that works for all -this can be based on improved technology for this sector. After extensive reform programmes to transform the floriculture industry of Ethiopia, the economy became the second-largest floriculture products exporter from Africa with an export value of nearly a quarter billion USD in 2012 (Gebreeyesus, 2014).

[5]Nigeria can become a major exporter of ore and metal like South Africa that relies relatively more than Malaysia, Philippines and China on exports of ores and metals, insurance and financial services but falls short in innovative or value-added exports (Bhorat, Cassim, & Hirsch, 2014). Since a basket of exported goods are critical to growth, development and international competitiveness (Gallagher, Moreno-Brid, & Porzecanski, 2008).

[6]Emerging research suggests that greater attention is needed to the policy context in countries undergoing rapid structural transformation which may be in some cases exacerbating inequality for the landless and the very poor. For example, in Rwanda, a rapidly modernizing agriculture sector may be leading to increased inequality in the farm and nonfarm economies (World Bank, 2017).

END NOTE

[7]Meaning only statistically significant variables can be said to have a correlation amongst themselves - which can then lead to the study of their cause and effect.

[8]For an extended version of this paper which captures the multinomial logistic regression; further regression analysis; and summary statistics of chronically poor, impoverished and escaped households, please write the authors on their e-mail.

[9]The recent reduction of Right of Way (RoW) charges for telecommunication infrastructures by the state governments of Ekiti, Imo and Anambra is a welcome development as this will help integrate the necessary infrastructure needed for this innovation, improve broadband infrastructure and ease doing business.

[10](Osili & Long, 2007).

[11]Evidence on 'What', 'How' and 'Why' is found in Stuart Cameron's work: Scaling up School Improvement in Nigeria: Findings from a New Survey (www.esspin.org)

[12]Technology should be part of the education system as this will lead to innovation and further competition. This innovation strategies should include strategies for reaching learners (pupils), teachers and parents alike (Kimenyi, Otieno, & Kaye, 2020)

[13]Particularly the north-west, south-east and south-south regions since they happen to be a recurring driver of being chronically poor and descending into poverty for the whole and rural samples. Tailoring interventions to these specific local contexts are key for maximizing development effectiveness. The more we know about the chronic poor and descenders in these environments, the more likely we are able to implement policies and interventions that address the needs of these regions (World Bank, 2017).

[14]Since study shows that the rural economy is a key part of the solution to ending poverty, (World Bank, 2017) recommends that policymakers should in partnership with donors and client countries like Nigeria collect information on both formal and informal rural enterprises, their constraints and performance to help better inform the Systematic Country Diagnostic.

Towards an Inclusive Growth Framework: Critical Issues and Nigeria's Context

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Abstract

This paper explicates an inclusive growth framework with an emphasis on Nigeria. Deploying a non-quantitative approach, it shows that inclusive growth focuses on economic growth which is necessary and crucial for poverty reduction, deals with both the pace and pattern of growth, adopts a long-term perspective, broad-based across sectors (necessitating structural transformation) and above all, the imperative of governmental role in the inclusive growth trajectory. The paper unravels the peculiar factors militating against the realization of inclusive growth in Nigeria and recommends the mechanism to deal with them, in order for the country to address the pandemic level of poverty and unemployment, and thus enjoy the benefits accruable to inclusive growth.

Introduction

Nigeria is an economic tragedy of some sort, and achieving inclusive growth has been a Herculean task. Inclusive growth is used to refer to the pace as well as the pattern of growth, both of which are regarded as intertwined, and therefore must be jointly addressed. Inclusiveness in itself is a generic concept which encompasses equality of opportunity, equity, and protection in markets (Commission on Growth and Development, 2008). Inclusive growth, therefore, connects both macro and micro determinants of growth, with the former embracing structural re-alignment for economic diversification, innovation, and competition.

The imperatives of inclusive growth cannot be gainsaid, dovetailing into rapid and sustained poverty mitigation and employment creation. Consequently, inclusive growth leverages people's ability to both contribute to, and benefit from economic growth. This however is not the same thing as pro-poor growth, which essentially aims at the welfare of the poor, as its concern is with engendering opportunities for the greater part of the labour force including the poor and middle-class. Although the definition of inclusive growth is consistent with the absolute definition of pro-poor growth, it differs in two fundamental ways. First, absolute pro-poor growth can be engendered by direct income redistribution, whereas productivity growth and improvement in new opportunities for employment are germane for growth to be inclusive. Second, focus has traditionally been, in the case of pro-poor growth, on growth and poverty measures, as against inclusive growth which is focused on the ex-ante analysis of the impediments to sustained growth, as well as the sources of high growth and poverty reduction.

According to Ravallion and Chen (2003), growth is considered pro-poor in the absolute if poor people benefit in absolute terms, as indicated by some established poverty indicators, whereas in the relative definition, it is "pro-poor" if and only if there is a decline in inequality, i.e. if the growth in the incomes of the poor is faster than that of the entire population. While rapid pace of growth is a sine qua non for significant poverty reduction, its sustainability regarding long-run horizon necessitates that it should not only be broad-based (i.e. encompassing or cutting across sectors), but inclusive of a considerable chunk of a country's labour force.

From the foregoing, this paper deals with the issues in inclusive growth framework, and the salient issues in Nigeria's context. It is divided into four sections. The critical issues in inclusive growth are presented in section 2. In section 3, Nigeria's context is covered. Section 4 is on policy recommendations and conclusion.

Critical Issues in Inclusive Growth
A critical issue in the inclusive growth framework is that focus is on productive employment rather than on direct income redistribution, as a mechanism for improving the incomes of excluded groups. Although income distribution or transfer schemes could be employed in the short run to mitigate the adverse impact of public policies aimed at growth, they are not suited to the long-run horizon, especially for poor countries which face the double jeopardy of overstretched budgets and dismal average income levels below 700 US dollars per day. It is reasoned that even for the developed world and for some parts of the population, redistribution schemes need to be combined with other measures to address rising poverty rates (OECD, 2008).

Allied to this is that the realization of high growth rates and poverty reduction is underpinned on the preponderance of the labour force taking an increasing share in the growth process. Consequently, growth has to be in such a manner that brings about progressive changes in income distribution. This sort of efficiency in the growth process is capable of inducing a greater impact on poverty reduction than one in which income distribution remains unchanged after growth, as demonstrated in White and Anderson (2001). Thus, for growth to be both inclusive and sustainable, productive employment is assumed to be the main instrument.

New jobs could emanate from the formal or informal sectors, including self-employment. Importantly, there should be productivity growth irrespective of the type of employment as a means of improving wages across sectors, while addressing the issue of underemployment, which is a major problem in many countries, especially low-income economies. In addition, policies are not targeted mainly in favour of labor-intensity in industries, although this might tend to be advantageous for the poor with little education and technical competencies.

Thus a successful inclusive growth framework should take cognizance of productive resources and capacity of the individual on both labor demand and supply sides.

Second, sound policies are a viable strategy for sustainable and inclusive growth. However, such policies should be encompassing or eclectic and should take a longer-term perspective. With long term perspective comes the need to recognize that between reforms and outcomes, there are time lags. Overall, emphasis should be placed on implementing policies in the short run, but if inclusive growth must be sustainable, it has to contend with the future horizon.

Furthermore, when high growth rates extend over a period of time, their benefits are felt in terms of poverty reduction (Bourguignon, 2003). Findings by Kraay (2004) indicate that as much as 70 percent of the variation in poverty reduction (measured by the headcount ratio) was found in the short run to be explained by growth in average incomes, and as much as 97 percent in the long run. Thus, any inclusive growth architecture aims at poverty reduction across sectors.

Additionally, the need for the complete picture of growth and the contexts are critical in any inclusive growth framework. It is important to note that very little guidance is offered in the literature on growth and pro-poor growth to policymakers. In this context, it is important to emphasize that prior to the 2000s, the major focus in the pro-poor growth analytics was on measuring the extent to which growth engendered poverty reductions absolutely or relatively, in addition to the prevalence of statistics on aggregated income and poverty. This focus has however shifted to specific contexts and ex-ante investigation of impediments to future economic development. In this wise, issues relating to sources of growth, poverty and growth decompositions have become critical towards proving remedies in country-specific contexts due to the diversities that exist not only between and among countries, but also within the same country over a period of time. This is because it is known that growth determinants are largely a function of initial conditions, and a plethora of other factors including policies, governance, politics, geography, and demography.

It is also important to note that for broad-based growth to be sustainable, economic transformation is key. According to Imbs and Wacziarg (2003), no country has been able to accomplish significant growth in income and poverty reduction at the expense of structural transformation and economic diversification. This is particularly important for developing countries, especially those suffering from the "Dutch disease", small markets and difficulties in accessing international markets. Lastly, an issue that calls for attention in Nigeria's quest for inclusive growth is the COVID-19. With the declaration as a pandemic by the World Health Organization in March 2020, COVID-19 has become a global emergency

and global growth is predicted to fall by 0.5 for the year 2020. As of 3 April 2020, the virus had spread to 50 African Union Member States. Thus, Nigeria is not immune to the endogenous and exogenous effects of COVID-19.

The exogenous effects include a decline in trade between Nigeria and affected partners, the decline in remittances from Nigerians in the Diaspora, a decrease in foreign direct investment and Official Development Assistance, and falling revenues from crude petroleum. On the other hand, the endogenous effects include the rapid spread of the virus (with its debilitating effects on morbidity and mortality), disruption in economic activities, decrease in tax revenue, and rise in public spending to cushion the adverse effects of the pandemic and support economic activities. The implication is that meeting an inclusive growth in Nigeria becomes more challenging, although COVID-19 can be used to address growth that targets a large segment of the Nigerian population via using suitable public policy.

Country Idiosyncrasies: Nigeria's Context
Achieving inclusive growth in Nigeria would largely depend on a variety of factors including dealing with corruption and weak institutional environment, insecurity, poverty, attracting foreign direct investment, economic diversification, and sound economic policies. Due to space constraints, the first one is explored. For quite a long time, Nigeria is widely considered and perceived as one of the most corrupt countries on earth, with the effect that its stunted development despite the encouraging growth indices is tied inevitably to the many shades of corrupt tendencies which take place in it.

Inclusive growth and corruption can be said to be antithetical. Due to the inert justice system, the subservient appendage of the legislature to the executive arm of government, political opportunism and patronage, weak civil society mechanisms for holding corrupt individuals to account, and largely owing to the heavy reliance by majority of Nigerians on government services, corruption is a major driver of poverty in Nigeria. Although corruption and its associated stealing of public funds are as old as mankind and cut across religious, racial, and ideological divide (Lipset and Lenz, 2000; Dike, 2005), that of Nigeria presents useful dimensions, with high-level political graft exerting monumental financial cost on the economy.

A major effect of corruption is the exacerbation of poverty and this is particularly harmful to lower-income groups because it pulls resources that should have been employed in bridging the gap between the rich and occupants of the lowest rung of society. One of the disturbing paradoxes of the Nigerian economy is the increasing amount of revenues earned and the likewise increase in the level of poverty of the people. Thus, it is implausible to link the high level of poverty in Nigeria to dwindling fortunes. Over the years, the

evidence points to a high positive correlation between revenues and poverty, a paradox explainable by the political-economic architecture, in which political power modulates the flow and direction of resources, and in which quasi-federalism (a unitary form in the garb of federating units) creates a productive base that is mono-cultural without optimally harnessing the huge endowments of states in the federation. A cursory dissection of the factors usually adduced as causes of poverty in Nigeria dovetails to the political and economic undertones of the pandemic.

Iyoboyi (2012) maintained that corruption especially of the public sector variety is largely the result of the political and economic structure of the country. Because Nigeria is basically a government-oriented economy (as most people are reliant on government services to meet most of their basic needs), doing so in an environment of corruption has meant the payment of various forms of regressive taxes. The political instability witnessed over the years can be traced directly to corruption and stealing of public funds, sometime posing a huge challenge to democracy and the survival of the country. The high level of graft in the political space has cast considerable doubt in the minds of ordinary citizens about the relevance of the brand of democracy being practiced in the country. Sycophancy and bootlicking which are prevalent in the political arena are believed by many to be an instant leeway to wealth and affluence. There are several reasons to think that political office holders cannot be responsible and accountable to the people due to the manipulation of instruments of justice by powerful groups and elements within society. The political space is littered with the mosaic of electoral corpses. Elections are generally a do or die affair, while the country has had to pay heavy penalty in the name of political assassinations, electoral violence, and the general destruction of lives and properties of several persons before, during, and after electoral contests. In a nutshell, corruption suffocates inclusive growth.

Conclusion and Policy Recommendation
Following a non-quantitative approach, this paper depicts the tenets of inclusive growth framework and the critical issues in the Nigerian case. It was found that the critical issues hinge on productive employment, public policies, and poverty reduction, in addition to a holistic view and country contexts. In the context of Nigeria, emphasis was placed on corruption and weak institutional environment, which are injurious to the prospects of inclusive growth in the country. Based on the narrative, Nigeria needs to engage policies that put premium on growth that cuts across sectors; takes into account productive resources and capacity of the individual on both the demand and supply sides of labour; and above all, empower the poor through productive employment. This way, the miseries associated with poverty and unemployment can be mitigated and inclusive growth can thus have expected palliative effects on the economy.

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Industrial Clusters in Nigeria:
Waking the 'Sleeping Giant' for Growth and Job Creation
NESG Policy Brief

Abstract

Making Nigeria an industrialised nation has been a key programme of many successive governments towards achieving economic prosperity. Evidence from recent studies on industrial clusters in Nigeria has suggested that employment creation and contribution to economic growth are significantly low. This contradicts results from other emerging countries like China, India, Turkey, etc. This study provides key policy suggestions towards reviving and leveraging the industrial clusters for economic prosperity and inclusive growth in Nigeria.

Introduction

Achieving a significant level of prosperity (economic growth, job creation, and economic development) in a country typically comes with systemic changes in the geographic and sectoral composition of the economy. As the country develops, there is a shift to higher value-added within existing industries for operational efficiency and other business reasons. As a result, industries offering similar and complementary products and services converge at a location (Haussmann et al., 2013; Christian, 2017). This is because the location gap between industries, inputs source, and market negatively impacts the overall prosperity growth in an economy (OECD, 2019).

This mode of inter-sectoral collaboration among firms from diverse industries engenders innovation, knowledge transfer, new product and value chain development (Malacarne, 2013). Therefore, helping to stimulate more investments (both local and foreign) and diversification of sources of economic security, stability, and prosperity in a country. According to Porter (1998; 2000), industrial clusters are the engine for economic growth. Many advanced economies used it as a foundation to achieve inter-sectoral spill-overs of technical knowledge and economy-wide diversification. Notwithstanding, the potentials of industrial clusters to generate economic growth, Nigeria has failed to benefit from the presence of industrial clusters across the country. The adoption of national cluster policy in 2007 could not significantly revive existing industrial clusters from their current comatose state due to crippling challenges — both cyclical and structural issues.

Meanwhile, industrial clusters in Nigeria are developed to reflect the potentials of their immediate environment. On a hand count, they are over 100 products and activities specific industrial clusters across the country. Moreover, each region in Nigeria possesses the potential to advance its

competitiveness and job creation across key sub-sectors of the manufacturing sector (see Box 1). For example, Southeast Nigeria demonstrates considerable potentials for investments in processing and manufacturing activities. This is evident with the widespread of specialised industrial clusters like Ariaria Leather Products Cluster, Abia, Nnewi Automotive Components Cluster, Umuahia/Aba Garment Cluster, Osakwe Industrial Cluster, Onitsha among others. In Southwest Nigeria, there is a mixture of economic opportunities due to the presence of a large consumer market along with many manufacturing hubs.

Many states in the Northern part of the country like Kano, Kaduna, Borno, Zamfara e.t.c. also host many agro-allied and processing clusters. Some of these include Kadawa Tomato Cluster in Kano, Gassol Rice Cluster in Taraba, Makurdi Citrus Cluster in Benu, Agadu-Alapa Cassava cluster in Kogi, Dawanau Processing Cluster, Kano among others. All these provide opportunitiesthat

Nigeria can leverage to establish a robust industrial sector and achieve economic growth.

One of these issues is limited access to modern industrial equipment and technologies. For example, the Aba leather and Nnewi automobile clusters in Southeast Nigeria have over the years relied on locally fabricated equipment and crude ways of knowledge transfer from one generation to the others. This is despite the availability of newer and more modern technologies that can foster productivity and increase outputs; but the adoption of such technologies stays low or non-existent. Also, there is little or no known linkages between industrial clusters in Nigeria and universities as well as institutional research activities. In Kano, the age-long leather processing activities rely solely on traditional technologies use. This is despite the presence of many universities of technology and science in the region. Consequently, there is low value-addition as well as poor quality of leather products from

Box 1: Industrial clusters & job creation potentials in Nigeria
There is widespread key agro-allied, processing, and manufacturing industrial clusters in Nigeria. Specifically, Lagos and Kano have all key industrial potentials and large retail markets. On top of that, Ogun State is reaping the spill-over benefits of the presence of sizeable retail markets in Lagos and Ibadan. Abia, Kaduna, and Anambra are key processing states with massive export potentials. These states have the most considerable potentials for job creation, economic growth, and enhancing inclusiveness. Within the industrial clusters below, agro-allied and manufacturing clusters have the highest potentials to absorb talents. According to the Nigerian Job Creation Strategy 2016, an enhancement of the operations of key agro-Allied industrial clusters could stimulate over 2 million new jobs in three

Figure 1: Distribution of clusters & Job creation potentials

the clusters. (Aremu et al, 2016). All these account for the disappointing performance of many industrial clusters. Therefore, this paper addresses policy suggestions towards reviving and using the industrial clusters for economic prosperity and inclusive growth in Nigeria.

Industrial clusters and economic prosperity: Some conceptual and empirical evidence

There are established shreds of evidence (both theoretical and empirical) on the pivotal roles played by industrial clusters in fostering economic prosperity in many modern development economics literatures. It is claimed that the presence of industrial clusters in many developing countries provides employment opportunities for many low-skills workers. This is because there is a low barrier to entry to the labour market and less external competition for this class of workers (McCormick, 1999).

Several studies have also confirmed the association between the presence of industrial clusters and low poverty rate (Fowler and Kleit, 2013; Mano et al, 2011; Weijland, 1999 among others). The studies argued that industrial clusters had the potential to reduce the isolation that Small and Medium Enterprises (SMEs) face in developing countries. In this way, many SMEs are linked to large-sized companies which bring about a synergy that unlocks employment opportunities for a large number of people (Fowler and Kleit, 2013). On the other hand, an improvement in the performance of industrial clusters through the upgrading of technology will increase labour productivity and provide workers with the opportunities to receive higher wages. With this, workers earn a wage rate that will make them escape the poverty trap (McCormick, 1999). A study by Fowler and Kleit (2013) found growth in industrial clusters is associated with a reduction in poverty rates in the United States of America. In the same way, Kimura (2011) discovered that the transformation of a traditional handicraft village into a modern

industrial cluster in Northern Vietnam. As a result, the per capita income of the village increased from USD 400 in 1995 to USD 2000 by 2005. Along the process, there were increased in employment opportunities in the country as many surrounding agricultural settlements benefitted from the spill-over effects.

In most African countries, including Nigeria, the degree of impact of industrial clusters on economic prosperity is limited. Many of the available industrial clusters are staying too long at stagnation or demise and critical mass effect stages of development (see box 2). Owing to many structural issues, these clusters have failed to achieve significant progress and are staying overly long in this stage. Therefore, making industrial clusters to contribute little to economic prosperity in many African countries (Christian, 2017; Aremu et al, 2016.).

Challenges impeding the growth of Industrial Clusters performance in Nigeria
A couple of challenges have constituted headwinds to the performance of many industrial clusters in Nigeria. Some of these challenges are noted below.

Low government commitment to the execution of industrial policies. In almost all industrialisation policy documents in Nigeria, development or enhancing the growth of industrial clusters remain a key component. However, there has been little commitment by the government at all level to this part of the industrial development plans.

Frequent change of policies by successive governments in Nigeria has led to the discontinuation of projects or procedures kick-started to improve performance of targeted industrial clusters. For example, the National Industrial Revolution Plan of 2012 identified the development of mid-sized logistics hub close to key industrial clusters. But this plan was never mentioned in the New Job Creation Strategy of 2016. Also, both plans identified various categories of industrial clusters as a focus for development. Therefore, creating policy inconsistency risk for the growth of industrial clusters in the country.

Poor market infrastructure.
There is a huge decay of market linkages infrastructure, especially within industrial

Box 2: Evolution of industrial clusters and economic prosperity
The stage of development of industrial clusters reflects the level of economic prosperity in an economy. Thereby demonstrating to the potency of industrial clusters in boosting growth, job creation and effective distribution of resources. There are about six stages of development of industrial clusters – cluster emergence, stagnation and demise, critical mass effects, evolution/growth, constructive force, and demise and re-birth. Having achieved little progress in industrialization, Nigeria has been struggling to transcend beyond the stagnation and demise stage.

Figure 2: Industrial cluster & economic prosperity
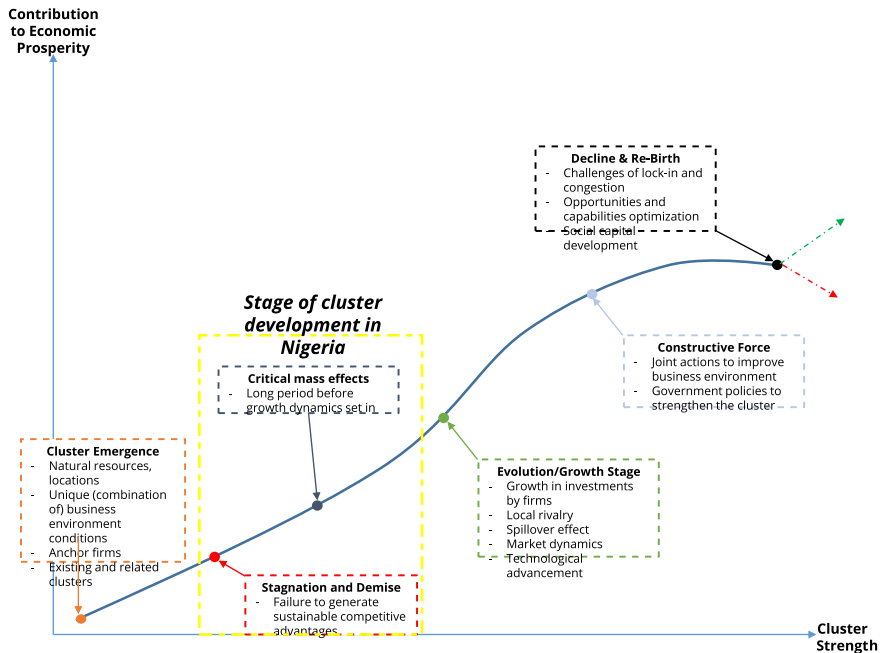
cluster areas. As a result, many clusters are currently performing sub-optimally in terms of job creation and contributing to the overall growth of the economy. Key roads connecting many industrial clusters in Lagos and Ogun are in poor shape, and this has led to the loss of income and shut-down of many industries in Nigeria. For instance, all key roads connecting the Agbara industrial estate in Ogun state are in a terrible state including the Lagos-Badagry Expressway. All these contribute to an increase in the cost of production and distribution, among others. Other key market infrastructure in short supply in major industrial clusters are power supply, social capital like water and sanitation, e.t.c

Insufficient supply of labour with critical skills and talents needed to improve the productivity of industrial clusters. The level of skill of a mass of available workforce is below the required level for the effective functioning of industrial clusters. Owing to this, many industrial clusters concentrate on the primary stage of production. In the case of manufacturing activities, the sophisticated industrial processes are usually managed by expatriates from Asian countries.

With the current level of skills, many industrial clusters in Nigeria are less competitive, innovative and can't enhance the value-chain of their products. This,

therefore, makes many industrial clusters operate at subsistence levels.

Failure to conform to international standards.

Because of the limited use of technology in the production process, goods produced from many clusters in Nigeria are below safety and quality standards set by advanced countries. Many of the products produced by these clusters routinely fail the quality tests of both local and international standard agencies like SON, NAFDAC, Global GAP, NICERT among others. The failure to meet these standards significantly contributes to the poor linkage of industrial clusters in Nigeria to the global value chain of their respective product. Consequently, this resulted in low exports earnings for many manufacturing and processing clusters in the country.

Policy Interventions

In making the industrial clusters work for Nigeria's prosperity and inclusive growth agenda, the following interventions are needed to improve the business environment and enhance growth for firms in the industrial clusters. Thereby, making them properly placed to achieve job creation targets.

Actively engage the private sector to drive market infrastructure provision. A framework for co-operation between public and private sectors to development needed market infrastructures like roads, energy and electricity, water among others. The private sector will provide funds while the government monitors and reinforces the implementation. By doing this, the mobilization of investments and a conducive business environment will be achieved. Also, this will foster the Box 3: Energizing Economies Initiative of the Rural Electrification Agency (REA)

The Energizing Economies Initiative represents a case example of market infrastructure project which is funded by private-sector investors/developers but implemented by the government through the REA. The project is aimed to provide off-grid electricity solutions to over 100,000 MSME's in over 340 economic clusters (like markets, shopping complexes and agricultural/industrial clusters) in Nigeria by 2023.

Under Phase 1 of the project, over 80,000 shops across 16 economic clusters in Lagos, Ondo, Ogun, Abia and Edo states were covered. According to Executive Director of REA, the project has created over 2,500 jobs, while serving over 18 million Nigerians. growth of output and development of many industrial clusters.

Supported by the availability of infrastructural facilities, the output and quality of products of industrial clusters in Nigeria will improve leading to efficiency and better competitiveness. In this case, the problem of access to finance will be minimized as businesses operating in these clusters become more attractive for bank

financing, local and foreign investors.

Strengthen value-chain and linkages to market for industrial clusters with comparative and competitive advantages.

The first step for the government to identify key clusters (products) with substantial comparative and competitive advantages. This will provide the government with key clusters to prioritise in driving economic growth and job creation. There is a need to work on increasing the value addition at the level of processing, packaging and secondary production, of key products. Also, a platform connecting both local and international key stakeholders – operating firms, buyers, investors, off-takers and regulatory bodies, should be developed to increase the performance of the clusters

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while connecting effectively to the global value chain. A one-stop shop like **One-Stop Investment Centre (OSIC) of the Nigeria Investment Promotion Council (NIPC)** can be considered for industrial clusters. Nigeria stands a chance to harness more benefits from the intervention given the country's market size and potentials of having many commodities that can serve as a foundation for global integration.

Provision of information on market opportunities and capacity building on modern production process and technology.

There is a need to provide adequate and timely information on market opportunities to clusters across the country. The government can incentivize the private sector to manage the process. Asides from information, there is an urgent need for capacity building of firms operating in existing industrial clusters across the country on the use of modern technology in their operation. In most clusters, especially in processing, many firms significantly rely on the traditional method or use of hoary equipment thereby reducing the output level, productivity and quality of products. In addressing the situation, the government can enter into PPP arrangements wherein training of workers and other unemployed persons in areas close to the clusters are structured to meet the need of clusters.

Because of this arrangement, the quality of products from many clusters will be enhanced. Therefore, unlocking them to opportunities in the international market while increasing patronage from the domestic market.

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