COVID-19 Pandemic And Its Economic Shocks In Nigeria

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Abstract: Emerging infectious diseases are a major challenge in the 21st century, in recent years, worldwide outbreaks of Ebola and Middle East Respiratory Syndrome caused great health and economic losses. The ongoing new coronavirus pneumonia (Corona Virus Disease 2019, COVID-19) outbreak is now a global public health problem. This research paper considered COVID-19 Virus spreading shocks on Nigerian economy and adopted a historical-analytical approach to study the interplay of factors deepening the impact of the shocks, the new phenomenon of demand-shock effect alongside a supply-side shock effect implies that the length and cost of these shocks could significantly inflict a colossal economic downturn on the economic outlook in emerging and developing economies like Nigeria. Thus, as of May 9, 2020 with the results of statistical data processing, it is difficult to predict the future spread-reduction variables of the pandemic.

Introduction

The novel coronavirus COVID-19 originally identified in December 2019 as a severe case of pneumonia in Wuhan province of China and since then, it has become a global pandemic, affecting greatest nations around the whole world. Following the few days after diagnosing the first case of this previously unknown pneumonia, a novel coronavirus and its contributing agents have been identified by several independent laboratories. For the time being the causative virus has been named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the relevant infected disease has been named as coronavirus disease 2019 (COVID-19) by the World Health Organization respectively. Emerging infectious diseases are major challenge in the 21st century. In recent years, worldwide outbreaks of Ebola and Middle East Respiratory Syndrome caused great health and economic losses. [1,2] The ongoing new coronavirus pneumonia (Corona Virus Disease 2019, COVID-19) outbreak is now a global public health problem. The COVID-19 outbreak is highly similar to the severe acute respiratory syndrome (SARS) outbreak that occurred in 2003; both outbreaks were caused by new coronaviruses during time periods overlapping with the Chinese Spring Festival. [3] On December 31, 2019, the Wuhan Municipal Health Committee reported 27 cases of pneumonia with an unknown cause, and many cases were traced to the Wuhan Southern China Seafood Market, which was subsequently closed on January 1, 2020. [4] On January 7, 2020, laboratory tests showed that the pathogen causing the previously unexplained pneumonia was a new type of coronavirus; this pneumonia was then officially named COVID-19 by the World Health Organization. [5,6] The COVID-19 outbreak started in Wuhan and spread rapidly to other provinces and countries. [7,8] As of January 30, 2020, a total of 34 provinces and regions in China had reported 9692 cases, and nearly all imported cases were derived from Wuhan in Hubei province. [9,10] According to the daily report of the World Health Organization, the epidemic of SARS-CoV-2 so far registered 118 319 cases and 4292 deaths to 113 countries that reported by March 11, 2020 and the World Health Organization declared the outbreak a pandemic (https://www.who.int/docs/default-source/coronav) On March 30 reported 693,224 confirmed cases, including 33 106 deaths in more than 200 countries (9).

COVID-19 has been defined as a class B infectious disease but has been managed as a class A infectious disease by the Chinese government. Daily

case reports are being released, and any omission or concealment is punishable by law. Currently, the number of cases is still increasing, and the epidemic has not yet reached its peak; however, the situation differs from province to province. Information on the temporal and spatial distributions of cases is important for developing targeted treatment and prevention strategies. Because the return peak of Spring Festival travel is approaching, information on the possible changes in the incidence of COVID-19 in different cities will help in better preparation for disease prevention and management.

Recession is an economic event triggered by exogenous and endogenous forces. These forces could be driven by economic and non-economic shocks. The 2020Q1 shock is exogenously calibrated (Shambaugh, 2020). However, the length of the recession is dependent on the resilience of the economies to absorb shocks (Carlsson-Szlezak, Reeves & Swartz, 2020). The transmission path of a shock on economic outlook could manifest on the economy either through supply-side affecting investment and productive forces or demand-side weakening aggregate demand and capital formation. The prediction of many economic experts on the global recession seems apt based on the ravaging economic disturbance caused by the supply-side forces e.g. slump in the global oil prices and by the demand-side forces e.g. Covid-19 in 2020Q1 (IMF, 2020). The lockdown policies adopted to quell the pandemic effect of covid-19 look to be reducing daily economic agents' activities by about 20% from normal levels (Coulton, 2020). Due to the global interdependency amongst economies, these two phenomena occurring concurrently could inevitably summersault market fundamentals in emerging and developing economies. The trend in economic activities in 2020Q2 looks disillusioned. Economists predict forthcoming recession to be deep (Coulton, 2020), great (Borge, 2020), and depression (Blanchflower and Bell, 2020). There are indications that global economic activity could decline to 1.9%, 3.3% in the US, 4.4% in the Eurozone, and 3.9% in the UK and China's growth would be fewer than 2%. "Our baseline forecast does not see GDP reverting to its pre-virus levels until late 2021 in the US and Europe" (Coulton, 2020). Specifically, the Federal Reserve predictions, put US unemployment could be at about 32%. Unemployment could be about 50% in the UK (Blanch flower & Bell, 2020).

Therefore, in this study, we investigated the temporal and spatial distributions of the early COVID-19 epidemic to reveal the dynamic changes and trends in reported cases as well as its economic implication on Nigerian viz-a-vis Education, Agriculture, Industry, Technology, Taxation, Building Construction, Manufacturing, Information and Communication and Trading. This result provides valuable information for disease prevention at both the local and global levels.

Review Of Related Literature

Statistical analysis, embracing modelling, parameter estimation, hypothesis testing and the design of studies, plays an essential role in connecting the gap between the mathematical theory and public health practice, and it is this aspect that motivates the present discussion. In other words, the world attempts to promote the use of statistical analyses that provide practical insight and guidance for the disease control, with emphasis on identifying issues that have not been addressed sufficiently (12). Hong, Lee & Tang (2009), defined a recession based on the classical business cycle model as a decline in the economic activity between separate periods of relative prosperity and relative decline. NBER (2010) refers to it as a substantial fall in economic activity over some time noticeable in GDP, household income, employment, industrial production and wholesale-retail sales (Jiri & Elena, 2013). Jiri & Elena (2013) states it is a time when there is a decline in GDP for not less than two inter-period quarters in a quarter-to-quarter analysis. The period is also associated with substantial changes in credit volume and asset prices, large scale balance sheet problems; severe disruptions in financial intermediations and large scale government support (Stijn & Kose, 2013). Keynes believes in the visible hand of the government to influence macroeconomic performance. Fiscal policy is the use of tax, transfers and fiscal spending to influence economic variables in a predetermined direction to achieve predetermined goals. Keynes advocated for the use of fiscal policies to stimulate an economy and grow an economy out of recession. This theory was an aberration to the view that the market is self-regulating and corrects itself and pulls the economy out of recession without interference from the government or its fiscal policy. There are several empirical studies across the world on economic recession.

Governments are rapidly mobilizing to minimize transmission of coronavirus disease 2019 (COVID-19) through social distancing and travel restrictions to reduce fatalities and outstripping of healthcare capacity. The pandemic's progression and impact are strongly related to the demographic composition of the population, specifically, population age structure. Demographic science can provide new insights into how the pandemic may unfold and the intensity and type of measures needed to slow it down. Currently, COVID-19 mortality risk is highly concentrated at older ages, particularly those aged 80+ y. In China, case fatality rate (CFR) estimates range from 0.4% for those 40 y to 49 y jumping to 14.8% for those 65+ y (1). This age pattern has been even more stark in Italy, where, as of March 30, 2020, the reported CFR is

0.7% for those 40 y to 49+ y, and 27.7% for those >65 y, with 96.9% of deaths occurring in those aged 60+ y and over (2). Current CFRs are likely overestimated due to under ascertainment of cases. In South Korea, with broader testing and strong health care capacity (only 158 deaths), the current CFR for those 80+ y is still an alarming 18.31% (3) Population age structure may explain the remarkable variation in fatalities across countries and the vulnerability of Italy. Many Nigerian prefer to live close to the extended family Intergenerational interactions, co-residence, and commuting may have accelerated the outbreak in Nigeria through social networks that increased the proximity of elderly to initial cases.

The age structure of initial cases, along with early detection and treatment, likely explains the low numbers of fatalities in South Korea and Germany. The Korean outbreak was concentrated among the young Shincheonji religious group (3), with only 4.5% of cases thus far falling into the >80-y group (8). This contributed to a low overall CFR in South Korea relative to Italy (1.6% vs. 10.6%). Germany has, likewise, few deaths (583 out of 61,923 cases to date), with the median age of confirmed cases at 48 y compared to 62 y in Italy (9). COVID-19 transmission chains that begin in younger populations may go undetected longer (10), with countries slow to raise the alarm. The initial low CFR in England may have reflected the relatively young age structure of early infections, including Greater London, which has a small fraction of residents over 65 y compared to more rural areas (11). COVID-19 was only detected in King County, WA, once it reached the Life Care Center in Kirkland, where 19 out of 22 of the state's first reported COVID-19 deaths occurred, with virus genetic sequence estimates suggesting it circulated for several weeks prior (12). Once community transmission is established, countries with high intergenerational contacts may see faster transmissions to high-fatality age groups, as seen in Italy and Spain, leading to higher average CFR (13). The overall burden of serious cases and mortality reflects linkages between the age distribution of early cases, age structure of the population, and intergenerational connections.

In Nigeria, the recession is entirely not a new phenomenon. However, the recession in Nigeria is the archetype of the slump in global oil prices. Thus, the recession in Nigeria could be predicted. Conversely, the length and dimension of shocks on macroeconomic behaviour motivate the study to undertake a robust analysis to determine the impact of global covid-19 and oil price glut shock on the economy. How do economies recover from shocks? Nigeria is heavily affected both by the plummeted global oil price and health-crises. Nigeria's recession of 2016 came to a halt after the 0.55% growth in the Gross Domestic Product (GDP) in the 3rd quarter (Q3) of 2017. Challenges in Nigeria are due to the weak supply base; excessive foreign exchange demand and continued exposure of the economy to the volatility of crude oil price in the global market, poor business environment fueled by poor infrastructures and inconsistent policy directions by the political class, a restrictive fiscal approach called Single Treasury Account which has to reduce the credit distribution of the Deposit Money Banks (DMBs) in Nigeria. These factors cumulatively caused the loss of confidence in the economy, which has, in turn, lowered business expectancy and opportunities. The historical antecedent of Nigeria shows that the country is often exposed to the shocks in the global oil price because of its monoculture economic structure. Most policy actions of government are often stop-gap measures and are inconsistent. This causes distortions in macroeconomic processes. It is also argued that there was over-centralization of government in Nigeria, which does not encourage entrepreneurship, productive and ingenuity. Thus unemployment in Nigeria rose from 13.3 % 2016Q2 to 17.8 % Q3 and 17.1 % inflation rate 2016Q2 (NBS, 2016). These problems imply that the Nigerian macroeconomic fundamentals are unable to sustain the shocks from the global oil market. The effect is the fall in government spending, inflation among others. Before 2016, the macroeconomic structure and microeconomic structure maintained a positive trend. In 2015, the heyday of Nigeria's rebased GDP; the economy of the country grew at about +2.79% and grew at a higher rate at 6.22% in 2014. This status made it possible for the country to embark on projects that had an impact on macroeconomic development.

Nigeria is a monocultural economy with heavy dependence on petroleum. The neglect agricultural sector further fastened the fortunes of the economy to petro-dollar more so given the relative ease of access to this wealth. The price of the product in the global market is highly volatile e.g. Brent averaged $52/b in 2015, 53% below the level in 2014 and 49% below the average price over 2010-2014 (eia.gov). The slump affected many developing economies including Nigeria leading to recession. The volatility often affects the GDP, creates low market demand, the decline in capital formation, slump in the economic environment, etc. At the micro-level, such volatility causes a fall in savings and among others. Thus, threatening the overall macroeconomic performance by the spiral impacts on production, distribution, and consumption. According to Onuchuku (2016) the Nigerian problem was more of stagflation given the presence of both recession and inflation. See figure 1, shows that GDP in 2013 grew from 5.49% to 6.22% in

2014, but dropped to 2.79% in 2015. From then it consistently dropped on all quarters of 2016. Unemployment increased, inflation jumped to 17.1 percent in the Q2 of 2016 and remained at the double-digit growth rate (NBS, 2016).

Table 1: RGDP and Inflation for 2011-2016

Year	Inflation	RGDP
2011	5	10
2012	4	13
2013	2.5	13
2014	5	7
2015	2.5	8
2016Q1	0	16
2016Q2	-5	17

Source: National Bureau of Statistics, 2016

From Table 1 above, there is a wide divergence between economic growth and inflation in Nigeria. The inflation rate is represented by higher movement while GDP is denoted by a nose-diving trend, showing up a negative trend in both the Q1 and Q2 of 2016. From the trend, it may be deduced that the Nigerian economy was unable to withstand shocks, global competitiveness, and the harsh global politico-economic system its capital outflow greater than its capital inflow.

Therefore, the critical issues at stake is the lesson to draw from the Nigerian economic crises as the implication towards the declining economic indices it suggest to Nigeria and what implications do declining economic indices suggest to Nigeria?

Demographically informed projections will better predict the COVID-19 burden and inform governments. While population age structure is crucial for understanding those at the highest risk of mortality both across and within countries, it is also vital for understanding social distancing measures to reduce critical cases that overload the health system—aka "flattening the curve." Our investigations show that countries with older populations must take aggressive protective measures. For these to be effective, special attention should be devoted to high-risk population groups and intergenerational contact. Within countries, mapping of age-related spatial clustering can improve hospital and critical care forecasts (15). Consideration of population age structure also necessitates understanding the interlink age of policy measures and how policies might create unintended consequences. While schools may be a hub of virus transmission, school closures may inadvertently bring grandparents and children into contact if grandparents become the default careers. In aged populations with close intergenerational ties, governments need to facilitate childcare solutions that reduce contact. In a pending decree, the Italian government introduced a special leave for parents with children at home from school, and a voucher for babysitting.

The age structure of populations also suggests that the squeezed "sandwich" generation of adults who care for both the old and young are important for mitigating transmission. Beyond introducing sick pay for those who need to self-isolate or care for family members, joint government and industry emergency policy measures should seek to counter family economic crises, particularly for vulnerable and precarious workers who are less able to comply with policies that allow social distancing. The rapid spread of COVID-19 has revealed the need to understand how population dynamics interact with pandemics. Population aging is currently more pronounced in wealthier countries, which, mercifully, may lessen the impact of this pandemic in lower-income countries with weaker health systems but younger age structures. It is plausible that poor general health status and co-infections such as HIV and tuberculosis will increase the danger of COVID-19 in these countries, along with intergenerational proximity and challenges to physical distancing. Thus far, the lower than expected number of cases detected in Africa (despite extensive trade and travel links with China) suggests that the young age structure may be protective of severe and thus detectable cases. Beyond age structure, demography can shed light on the large sex differences in COVID-19 mortality that need to be understood—with men at higher risk. Distributions of underlying comorbidities such as diabetes, hypertension, and chronic obstructive pulmonary disease will likewise refine risk estimates. Until more data are available, the concentration of mortality risk in the oldest old ages remains one of the best tools to predict the burden of critical cases and produce more precise planning of availability of hospital beds, staff, and other resources. Few countries are routinely releasing their COVID-19 data with key demographic information such age, sex, or comorbidities.

Analytical Approach
Likely nature of the economic shocks
It is important to distinguish three sources of the shock, two of which are tangible.
• First are the purely medical shocks where workers in their sickbeds are not producing [GDP].
• Second is the economic impact of public and private containment measures – things like school and factory closures, travel restrictions, and quarantines.
• The third is literally 'all in our heads'. Belief-based economic shocks, individual behaviour depends upon beliefs, and these are subject to the usual cognitive biases; Human brains evolved in a walking-distance world, where future increments could reasonably be predicted by past increments. Using

increments to predict increments is 'straight-lining the future' (i.e. linear approximation). It is natural, for example, to make guesses on the *number* of future COVID-19 cases based on the number of new cases that appeared in the recent past. This can lead to grave mistakes. The psychological or beliefs-based elements of the shocks are also founded, in part, on the beliefs and actions of others. When beliefs are based on others' beliefs, multiple equilibriums are likely. There can be good and bad equilibrium – and very 'nonlinear dynamics' in transition. If everyone trusts the authorities to do the right thing, people may not rush out to hoard hand-sanitizer since they believe no one else will. But a mad scramble is likely if many think others will hoard. If beliefs switch from the good to the bad equilibrium, due say to loss of confidence in their government's ability to contain the spread, the result can be chaotic or to put in more directly, beliefs that depend upon others' beliefs can produce herd behaviour and panic – just as it so often does in economic settings ranging from bank runs to panic buying of toilet paper.

The supply-side shocks are more tangible.

Tumbling oil prices

Nigeria has already reduced its projection of 2.1 million barrels a day of oil production to 1.7 million and has cut a record $35bn budget for 2020 based on an oil price of $57 a barrel, down by about 15%. As the financial woes increase in oil-rich Nigeria, the country's main crude export, Bonny Light, fell below $13 per barrel last week and millions of barrels remain unsold, while Brent stood at about $28 per barrel on Friday. Crude export remains Nigeria's largest source of revenue, energy and foreign exchange for the past three decades, contributing to more than 90% of aggregate foreign exchange earnings for the country and 80% of federal government revenue, according to government records. "Nigeria has been talking about diversifying away from oil but it has been slow to effect this pivot. It is once again vulnerable," said analysts at Rennaissance Capital (Rencap). "Oil may only account for 9% of GDP, but petrodollars are to the non-oil economy what diesel is to Nigeria's multitude of generators. It is an important facilitator of economic activity. A sharp decrease in oil revenue implies a significant deceleration of GDP growth. Given how fragile the economy is, we expect it to fall back into recession in 2020. "The consumer was still in recession – as indicated by its proxy, wholesale and retail trade – which has contracted in the last three quarters. It is in part due to the fragility of the economy coupled with the double hit from the lower oil price and COVID-19, that we are significantly cutting our growth forecast for Nigeria to -0.4% and 1% in 2020 and 2021, respectively, from.

Supply-side shocks

The direct supply-side impacts of human reactions to the virus are obvious and abundant; authorities and firms in several nations have shuttered workplaces and schools. Nigeria presents clear and early example. After sporadic reports of COVID-19 infections, many large Nigerian companies ordered their employees to work from home in late February. This practice is spreading rapidly. From an economic perspective, these closures and travel bans reduce productivity directly in a way that is akin to temporary drops in employment. The size of the resulting output contraction may be attenuated today thanks to digital technology and cloud-based collaborative software and databases. Other public health measures aimed at slowing the spread – like school closures –temporarily reduce employment, indirectly, as workers have to stay at home to work and look after children. Nigeria closed all schools since march,2020 and this trend is likely to accelerate since child-to-child infection is a major transmission vector in, say, the seasonal flu. People staying away from work to tend to sick relatives are another indirect, temporary employment reduction. The same type of shock arises from the now common policy of imposing quarantines on the family of infected people, and those they have come in contact with. The severity of these shocks are amplified when they concern health workers. For example, a hospital in the Nigeria prefecture with the largest number of COVID-19 patients was forced to stop accepting outpatients due to absent nurses (who stayed home to take care of their children). Data are already reflecting these supply shocks, the April 2020 read out on Nigerian key index of activities.

Health-shock propagation uncertainty COVID-19 is not the first supply shock the world has seen. A unique feature of COVID-19's supply shock concerns its propagation pattern. In the case of past supply shocks – like the Thailand floods of 2011 – the impact by factory was almost completely understood within days if not hours; it all depended upon the altitude of the factory. Likewise the supply shock that arose from the Great East Japan Earthquake in 2011 was simple to dimension. Distance to the epicentre was a quite reliable determinant of the damage to factories. By contrast, the spread of the new virus is not necessarily dictated by the geographical

distance from Wuhan in China – as the outbreak in northern Italy shows. The routes of airplanes and cruise ships appear to influence the dissemination of the virus in the early phase. Moreover, since it involves people, and human behaviour is hard to predict, uncertainty about the size and location of the shock is highly uncertain and is likely to remain so for many weeks, if not months. Lastly, the duration of the supply-shock depends upon the virus's lethality and is

thus highly uncertain for reasons having to do with the nature of the virus and public health policy reactions. In the more extreme scenarios considered by some economic forecasters (extreme in the sense that they involve death rates outside the ranges seen in the last half century), the shock could much more directly and much more permanently reduce employment by reducing the labour supply – due to deaths; the likelihoods of such scenarios involve medical judgments that we are not qualified to make.

Supply-chain shocks

As of early April 2020, the COVID-19 epidemic was very much centered in Lagos, Nigeria with over 90% of reported cases located there. The two next hardest hit states in Nigerian is Ogun state and Abuja, the capital city. Lagos is the network hub in Nigeria; it is also the most-hit state in Nigeria (as of 5th March, 2020).

Demand-side shocks

When it comes to COVID-19's immediate aggregate demand shock, two aspects are worth distinguishing: practical and psychological. Practical since some consumers are or will be prevented from getting to stores, so their demand disappears from the market. Likewise, some home delivery services are suspended, so goods and consumers are coming together less frequently In past crises – like the Great Trade Collapse of 2008-09 – people and firms postponed purchases and delayed investments. This effect can be particularly pernicious since international media and personal communications can unintentionally synchronize such beliefs.

The demand-side shock need not travel along the traditional trade and financial bilateral connections. This was abundantly demonstrated during the Global Crisis of 2008-09. People and firms from around the world looked on with shock at the financial crisis unfolding in Nigeria.

While few nations were directly implicated in the subprime mess, the psychological shock led them to postpone purchases and investments. This turned what started as a North Atlantic financial shock into a massive and synchronised global demand shock volumes collapsed at the same time in all nations and almost all products at a pace never seen before. It is impossible to know if history will repeat this pattern in reaction to the COVID-19 shock, but it is a possibility.

Each of these first-round demand shocks are likely to be subject to Keynesian multiplier like amplification. For many people and companies around the world, not working means not getting paid – and that puts an additional damper on their demand. On the duration of the crisis, we could seek some clues again from past shock experiences. The negative impacts of COVID-19 on domestic demand for non-tradable services will become substantial if it takes a long time to contain the infection. Previous epidemic shocks were short and sharp. Today, the duration is less clear. Nigeria import and export enormous amount of industrial goods, so the duration of interruption may depend as much on whether firms can find substitutes for these goods as it does on the speed of the health recovery in China. In the worst case of demand shrinkage aggravated side-by-side by supply disruption, one might even imagine a situation somewhat analogous to the oil shock in the 1970s, when almost all the industrialised countries fell into persistent stagflation.

Governmental reactions create more and longer-lasting disruptions than the virus. As a lesson from history, much of the economic problems from the 1970s oil shock came from the inflation sparked by inappropriate macroeconomics policy responses, not just the actual oil shortage. In a more recent episode, the tariff hike by the Trump administration resulted in reduced imports from China, but US imports from other sources, such as Mexico and Vietnam, largely offset the effects. Globally, economies are connected by cross-border flows of goods, services, knowhow, people, financial capital, foreign direct investment, international banking, and exchange rates.

Economies are also connected – but not physically – by beliefs. All these things are also mechanism for the propagation of economic shocks. Some of these flows within nations are also likely vectors connecting the medical and economic aspects of COVID-19. Related linkages between medical and economic effects of the virus which are not necessarily international but are likely to be important are defaults or financial distress among firms that are not banks. Almost all businesses borrow as part of 'business as usual'. They count on incoming revenue to service the debt. If a shock like COVID-19 leads to a sudden stop in revenue, 'business as usual' can turn to bankruptcy. This has already happened to known companies in the world and Nigeria in particular which had been struggling to meet its debt obligations.

Deglobalisation policy reactions

There are mechanisms of immediate transmission, but policy reactions might put in place policies that could hinder the flow of goods, service and especially people. As Weder di Mauro points in her chapter, this could well make the economic effects more persistent. Companies, individuals and governments are experiencing disruptions which may lead to sudden deglobalisation. Companies are learning the lesson that global supply chains can be abruptly broken by a health shock and will adjust accordingly. Financial intermediaries and regulators are likely to incorporate pandemic shocks into their future risk assessments and stress tests. Societies may learn that other countries react with xenophobia and closing borders. Overall, in

times of rising nationalism and populism, people's fears and suspicions of 'others' might become a force for disintegration and deglobalisation. Finally, the virus might become endemic – that is to say, a disease that reappears periodically – in which case COVID-19 could become one of humanity's constant companions, like the seasonal flu and common cold.

Analysis And Results

The early work on the mathematical theory of epidemics was invariably of a deterministic nature and assumed that for a given number of susceptible and infectious individuals, and given attack and removal rates, a certain definite number of fresh cases would occur in any specified time. However, it is widely realized that an appreciable elements of chance enters into the conditions under which new infection or removals take place. So we know very little about this pathogen, except that everyone is worried. And, with the number of cases rising each day as shown in the table below considering the Nigeria context, intensifying concerns will probably lead many people to behave in ways that undermine economic activity; they will shy away from places where the virus can be transmitted. Moreover, many people will stay away until they are confident that the disease is manageable. That confidence probably requires an effective treatment or a very low likelihood of infection, or both. Not surprisingly, many observers are reducing their projections for economic growth this year, while financial market participants anticipate easier monetary policy to cushion the shock. The challenge of re-establishing public confidence that it is safe to vigour out and embark on their natural style of living which depends on the ability to identify and quarantine people infected with COVID-19.

Table 2a: Showing the Monthly Report of Covid 19 in Nigeria by Geopolitical Zones (April 25 - May 9, 2020)

	NORTH CENTRAL			*NORTH EAST*			*NORTH WEST*		
	CON	*DIS*	*DEA*	*CON*	*DIS*	*DEA*	*CON*	*DIS*	*DEA*
Week 1	0	0	0	0	0	0	0	0	0
Week 2	0	0	0	0	0	0	0	0	0
Week 3	0	0	0	0	0	0	0	0	0
Week 4	3	0	0	0	0	0	0	0	0
Week 5	17	0	1	2	0	0	1	0	0
Week 6	44	0	2	6	0	0	4	0	0
Week 7	60	11	2	6	0	0	11	0	1
Week 8	93	25	2	6	0	0	52	4	2
Week 9	153	37	3	72	5	2	123	8	2
Week 10	298	38	3	249	6	12	502	20	23
Week 11	423	97	11	475	16	17	1094	63	45

Key- Confirmed Cases [Con], Discharged Cases [Dis], Death [Dea]

Table 2b: Showing the weekly Report of Covid 19 in Nigeria by Geopolitical Zones (April 25 - May 9, 2020)

	North Central			North East			North West		
	CON	DIS	DEA	CON	DIS	DEA	CON	DIS	DEA
Week 1	0	0	0	0	0	0	0	0	0
Week 2	0	0	0	0	0	0	0	0	0
Week 3	0	0	0	0	0	0	0	0	0
Week 4	3	0	0	0	0	0	0	0	0
Week 5	17	0	1	2	0	0	1	0	0
Week 6	44	0	2	6	0	0	4	0	0
Week 7	60	11	2	6	0	0	11	0	1
Week 8	93	25	2	6	0	0	52	4	2
Week 9	153	37	3	72	5	2	123	8	2
Week 10	298	38	3	249	6	12	502	20	23
Week 11	423	97	11	475	16	17	1094	63	45

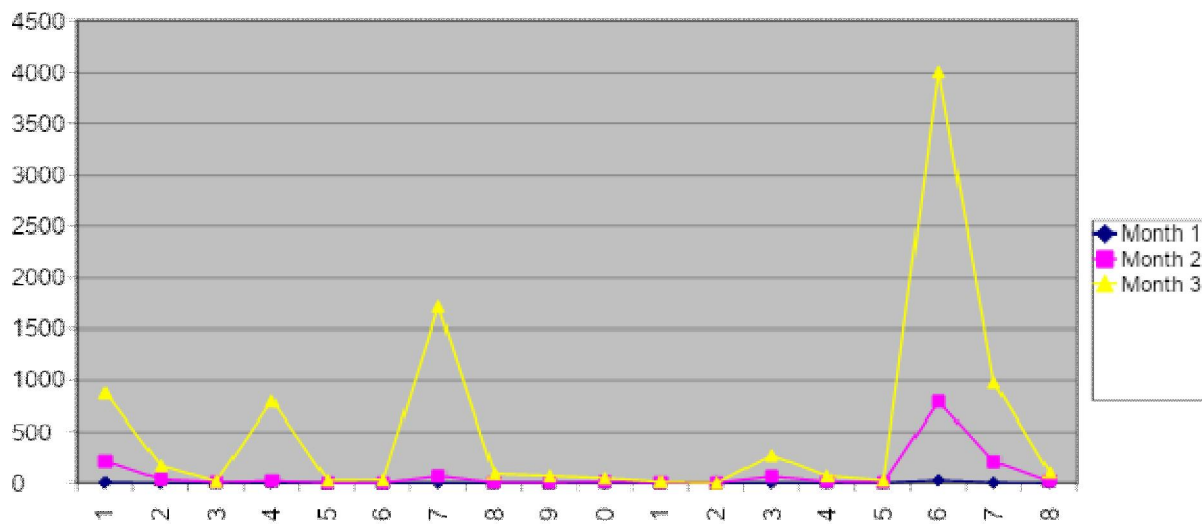**Key- Confirmed Cases [Con], Discharged Cases [Dis], Death [Dea]**

Figure 1: Summary Of Monthly Distribution of Covid -19 Report According to Geopolitical Zone In Nigeria

Before the COVID-19 outbreak, the global economy was struggling to regain a broad-based

recovery as a result of the lingering impact of growing trade protectionism, trade disputes among major trading partners, falling commodity and energy prices, and economic uncertainties in Nigeria. Individually, each of these issues presented a solvable challenge for the global economy. While the level of economic effects will eventually become clearer, the response to the pandemic could have a significant and enduring impact on the way businesses organize their work forces, global supply chains, and how governments respond to this global health crisis. Our government estimates that increased direct and indirect economic costs through global supply chains, reduced demand for goods and services, and declines in tourism and business travel mean that, "the adverse consequences of these developments the country are significant. "Global trade, measured by trade volumes, slowed in the last quarter of 2019 and was expected to decline further in 2020, as a result of weaker global economic activity associated with the pandemic, which is negatively affecting economic activity in various sectors, including airlines, hospitality, ports, and the shipping industry.

Conclusion

Generally, Nigeria's economic recession of post 2020Q1 should be time for rethinking and re-strategizing economic solutions to birth a new economic and political direction for the country. The present globally-driven covid-19 health crisis and global supply glut are exogenous economic recession. This implies that the government ought to pursue a far reaching development plan and policy to re-diversify

and restructure the economic base of the nation. To reposition the economy away from over-dependence on oil and foreign goods to agriculture and home-goods which will help stimulate the economy, stabilize the country foreign reserve and increase government fiscal revenue through tax reforms from local producers and local consumers. Due to the weak economic productivity base of the Nigerian economy, recovery would be around 2021Q1 ceteris paribus. Thus, as of May 9, with the results of statistical and mathematical data processing, it is difficult to predict the future spread-reduction variables of the pandemic.

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Appendix 1
Monthly Report of Covid 19 in Nigeria by Geopolitical Zones (April 25 - May 9, 2020)

	Week1 (Feb. 28, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	0	0	0	0	0	0	0
North East	0	0	0	0	0	0	0
North West	0	0	0	0	0	0	0
South East	0	0	0	0	0	0	0
South South	0	0	0	0	0	0	0
South West	1	0	0	0	0	0	1
	Week 2 (Mar. 7, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	0	0	0	0	0	0	0
North East	0	0	0	0	0	0	0
North West	0	0	0	0	0	0	0
South East	0	0	0	0	0	0	0
South South	0	0	0	0	0	0	0
South West	1	0	0	0	0	0	1
	Week 3 (Mar. 14, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	0	0	0	0	0	0	0
North East	0	0	0	0	0	0	0
North West	0	0	0	0	0	0	0
South East	0	0	0	0	0	0	0
South South	0	0	0	0	0	0	0
South West	2	1	0	0	0	0	2
	Week 4 (Mar. 21, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	3	3	0	0	0	0	3
North East	0	0	0	0	0	0	0
North West	0	0	0	0	0	0	0
South East	0	0	0	0	0	0	0
South South	0	0	0	0	0	0	0
South West	22	20	2	2	0	0	20
	Week 5 (Mar. 28, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	17	14	0	0	1	1	16

North East	2	2	0	0	0	0	2
North West	1	1	0	0	0	0	1
South East	2	2	0	0	0	0	2
South South	3	3	0	0	0	0	3
South West	72	50	3	1	0	0	69
	Week 6 (April 4, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	44	27	0	0	2	1	42
North East	6	4	0	0	0	0	6
North West	4	3	0	0	0	0	4
South East	2	0	0	0	0	0	2
South South	13	10	0	0	1	1	12
South West	145	73	25	22	1	1	119
	Week 7 (April 11, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	60	16	11	4	2	0	47
North East	6	0	0	0	0	0	6
North West	11	7	0	0	1	0	10
South East	3	1	0	0	0	0	3
South South	22	1	1	0	2	0	19
South West	216	11	58	8	5	3	153
	Week 8 (April 18, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	93	33	25	2	2	0	67
North East	6	0	0	0	0	0	6
North West	52	41	4	4	2	1	46
South East	3	0	2	2	0	0	1
South South	27	5	11	10	2	0	14
South West	361	145	123	65	13	8	225
	Week 9 (April 25, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	153	60	37	12	3	1	113
North East	72	66	5	5	2	2	65
North West	123	71	8	4	2	0	113
South East	6	3	3	1	0	0	3
South South	42	15	15	4	6	4	21
South West	786	425	154	31	22	9	610

	Week 10 (May 2, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	298	145	38	1	3	0	257
North East	249	177	6	1	12	10	231
North West	502	379	20	12	23	21	459
South East	18	12	3	0	0	0	15
South South	104	62	26	11	9	3	69
South West	1217	431	292	138	38	16	887
	Week 11 (May 9, 2020)						
Geopolitical Zone	Total Confirmed Cases	New Confirmed Cases	Total Discharged Cases	New Discharged Cases	Total Deaths	New Deaths	Total Active Cases
North Central	423	125	97	59	11	8	315
North East	475	46	16	10	17	5	442
North West	1094	592	63	43	45	22	986
South East	23	5	5	2	0	0	18
South South	127	23	29	3	11	2	87
South West	2009	792	535	243	44	6	1430

6/25/2020