

The Adequacy of Nigeria, South Africa and Other Sub-Saharan Countries' Response to the COVID-19 Pandemic and Unemployment

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Abstract: The measures taken by the governments of the sub-Saharan states, especially in Nigeria and South Africa, in a bid to curb the spread of the dreaded corona virus (COVID-19) are discussed in this article. It is submitted that measures such as social distancing and lockdown of businesses exacerbated the existing problem of unemployment in sub-Saharan countries. Accordingly, this article analyzes the adequacy of the relevant laws and policies that were adopted by the governments of selected sub-Saharan African countries, namely, Nigeria and South Africa in a bid to stimulate the economy and to reduce unemployment in the wake of the COVID-19 pandemic. Nigeria and South Africa were selected because they are amongst the largest economies in sub-Saharan Africa. The authors argue that the governments of Nigeria and South Africa should adopt and enforce pragmatic policies that are backed by appropriate legislation to combat the huge unemployment rate which was worsened by the advent of COVID-19. The article highlights that the problem of unemployment in Nigeria and South Africa must be addressed through adequate review of the employment policies, finance policies, educational curriculum and other related policies. It further recommends the review of the empowerment and socio-economic policies of these countries in order to prevent restlessness, riots and poverty-related protests that are induced by massive unemployment of the youth, women and other marginalized persons in Nigeria and South Africa.

Keywords: Unemployment; coronavirus (COVID-19); economic policies; Sub-Sahara

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1. Introduction

The novel coronavirus (COVID-19) was first discovered in Wuhan, China in December 2019 and became a global problem, infecting millions worldwide. COVID-19 pandemic is accompanied by devastating health and socio-economic after effects (Zhang, Hu & Ji, 2020, p. 1). Thus, the World Health Organization (WHO) officially declared COVID-19 outbreak as a global pandemic on 11 March, 2020 (Zhang, Hu & Ji, 2020, pp. 1-7; Odigbo, Eze & Odigbo, 2020; Bessa, 2020). The COVID-19 pandemic has reverberated across economies and financial markets and has severely impacted the global economy and financial markets. Accordingly, this status quo has triggered a series of unprecedented government responses and intervention in Africa and elsewhere (Zarembaa, et al., 2020, p. 2). The COVID-19 pandemic is a health crisis, a huge economic challenge and a societal catastrophe that has arguably posed the greatest economic threat to most countries globally (Baker & Judge 2020, p. 111; Dandara, Dzobo & Chirikure, 2020, pp.1-5; Dzobo, et al, 2020, pp. 1-10; Ex parte: van Heerden [2020] ZAMPMBHC, para 1). The policy responses adopted by different governments include workplace shutdown, social distancing, sanitization, restriction of people's movement and banning of social gatherings. These measures helped to curb the spread of COVID-19 but they had a dramatic negative economic impact (Zarembaa, et al, 2020, p. 3). Lockdowns impose extremely high costs on business and individuals, Africa loses up to 2.5% of the gross domestic product (GDP) every month and firms are reported to be operating at only 43% of its capacity. This has culminated into massive unemployment rates in Nigeria and South Africa and other sub-Saharan African countries (United Nations (UN) Economic Commission for Africa, p. v). Moreover, due to multiple and deep various historical reasons, African countries, especially in Sub-Saharan Africa are very poor and have massive unemployment rates (Dandara, et al, 2020, p. 2). In addition, most Sub-Saharan African countries are characterized by poor infrastructure, low level of industrialization, high level of corruption and poverty. As such, the likely impact of COVID-19 on the Africa continent, especially in the sub-Sahara region has attracted emotional debates with some commentators such as Bauer who argued that sub-Saharan African countries will be overwhelmed by the COVID-19 pandemic were shocked that the Africa was the least affected in terms of the COVID-19 infections (Bauer, 2020; Dandara, et al, 2020, p. 2). The authors argue that, notwithstanding the relatively low COVID-19 infection rate in sub-Saharan Africa, countries in sub-Saharan Africa are likely to be adversely affected economically in comparison to other developed countries in regions such as Europe, Australia and North America.

The negative consequences of the COVID-19 pandemic mainly include mass unemployment, deteriorating health systems and poor economic growth. These negative consequences have had a huge impact in Sub-Saharan African countries, especially in Nigeria and South Africa that rely too much on China for their exports and GDP growth. For instance, Nigeria depend mainly on China for the export of its crude oil and other products (Ejiogu, Obiora & Ejiogu, 2020). Similarly, apart from the decline in the export of primary produce, industries such as tourism, entertainment and aviation have been grossly affected by the COVID-19 pandemic (Zhang, Hu & Ji, 2020, pp. 1-7). Thus, the public health crisis posed by COVID-19 has culminated in economic disruption and severe recession in South Africa, Nigeria and many other Sub-Saharan African countries. Policy makers are currently facing difficult challenges regarding the support of small businesses and how to reduce the number of companies that will be forced into bankruptcy and/or retrenchments of employees due to COVID-19 (Baker and Judge, 2020, p. 108). Gondwe (2020), submits that COVID-19 will drag African economies into a fall of about 1.4% in GDP, with smaller economies facing contraction of up to 7.8%. The contraction is a function of export adjustments affecting primary commodity exporters and the consequent losses in tax revenue which reduces the capacity of government to extend public services necessary to respond to the crisis (Gondwe, 2020). The COVID-19-related contraction in the economy translates to huge job losses and unemployment. The unemployment problem in Sub-Saharan Africa may however be understated because of most of the persons are undocumented and not captured by the official statistics (Golub & Hayat, 2014, p.1-3). On the other hand, underemployment occurs when a person does not work full time or takes a job that does not reflect their actual training and financial needs. Underemployment occurs when a person has a job that does not utilise his or her full capabilities, skills and education (National Bureau of Statistics (NBS), 2020, p. 9; Nunley, Pugh, Romero & Seals, 2017, pp. 643-645, Henney, 2020; Akuthson, Messiah & Araf, 2018; Golub & Hayat, 2014, pp. 3-6). Unemployment may also occur when a person is actively looking for a job without getting hired, and as a result, the affected person may be unemployed for an extended period (Nunley, Pugh, Romero & Seals, 2017, pp. 643-644; Todaro, 2000). Notably, underemployment challenges were exacerbated by the COVID-19 pandemic in South Africa and Nigeria.

The article explores the sub-Saharan unemployment problem from the context of using the relevant law and policies to regulate unemployment so as to control the factors that create or magnify unemployment such as employment policies, finance policies, educational curriculum and other related policies. Additionally, the article

affirms that post-COVID-19 employment market will be different from the pre-COVID-19 market since most businesses will be substantially done virtually. Therefore, there is a need for the relevant governments of Nigeria and South Africa to adopt appropriate policies that will curb the effects of unemployment and underemployment during the ongoing COVID-19 pandemic. It is submitted that as opportunities are shrinking in the conventional sectors of the economy, by contrast opportunities are opening up in computing, internet programming, technological businesses and online sales. The inability of most people in sub-Saharan African countries to avail themselves to these opportunities may not be unconnected with the emphasis of the educational system that was titled towards liberal arts rather than Science, Technology, Engineering and Mathematics (STEM) in Nigeria and South Africa.

In the light of the above, the article discusses the legislation, rules, regulations and policies that are employed to combat post-COVID-19 unemployment in sub-Saharan Africa by particularly focusing on the case studies of Nigeria and South Africa. These countries were chosen for three main reasons. Firstly, these two countries are among the biggest economies in sub-Saharan Africa. Secondly, Nigeria and South Africa have national constitutions that were adopted almost within the same period, in 1999 and 1996 respectively. Lastly, South Africa and Nigeria experience similar civil and socio-political activities such as the inhumane apartheid that occurred in South Africa till 1994 while Nigeria had an extended period of military aberration until the adoption of the current Nigerian constitution of 1999.

2. Brief Literature Review

The COVID-19 pandemic is a complex biological, sanitary and economic disaster that has negatively impacted the entire world (Jayaram, *et al*, 2020). There is a relatively rich literature on the clinical and epidemiological aspects of COVID-19 pandemic (McQuoid-Mason, 2020; Moodley & Obasa, 2020; Johns Hopkins University, 2020; Gralinski & Menachery, 2020; World Health Organization; 2020; Li, Guan, Wu, Wang, *et al*, 2020; Al-qaness, Ewees, Fan & Aziz, 2020; Igwe, 2020). Similarly, scholars have started investigating the economic impact of the pandemic. Some scholars have explored the impact of COVID-19 on the global, continental and regional economies (Arndt, *et al*, 2020; McKibbin & Fernando, 2020; Ozili & Arun, 2020; Akanni & Gabriel, 2020; Onali, 2020; Ndedi,

2020; John, 2020). Notably, these scholars focused on the impact of COVID-19 on the various aspects of the economy such as the stock market, debt servicing, food prices, cryptocurrency and inflation, unemployment.

As indicated above, the initial phase of the COVID-19 pandemic was about the clinical and epidemiological aspects. However, there is now a shift towards the effects of COVID-19 on the economy (Lone and Ahmad 2020, p. 1304). It is submitted that the negative impact of the COVID-19 pandemic will be more severe, particularly on sub-Saharan African countries' economies because these countries rely mostly on developed countries for aids, trade and foreign direct investment (FDI). Most of these countries, especially South Africa and Nigeria depend more on China for their exports and these exports were severely restricted by the COVID-19 pandemic. Some economists had initially predicated that Africa's growth in 2020 will increase at 3.9%, but this is likely to drop to between 0.4 to -3.9% due to the effects of COVID-19 (African Development Bank Group, 2020; Jayaram, et al, 2020; Lone and Ahmad, 2020, p. 1304; Center for Global Development). The World Bank's Chief Economist for Africa, Albert Zeufack stated that economic growth in Sub-Saharan Africa may fall to between -2% and -5% in comparison to 2.4% in 2019, with a risk of sliding further into an economic recession (Deutsche Welle-Africa, 2020). It was further stated that Nigeria, South Africa and Angola make up 60 percent of the GDP of sub-Saharan Africa economy but they were almost reaching recession due to COVID-19-related economic challenges (Deutsche Welle-Africa, 2020). Zeufack and Jayaram, et al, 2020, focused on the economic growth and recession that is certain to beset sub-Saharan African countries. Nonetheless, they did not adequately focus on the effects of the COVID-19 pandemic on jobs and possible unemployment. Lone and Ahmad (2020, p. 1304), stated that COVID-19 related factors have affected the sub-Sahara Africa countries' economies in various negative ways. Firstly, the reduction of importation of Chinese goods by African countries to the level that it will increase the prices of local commodities due to the operation of the natural market forces of demand and supply. Secondly, travel bans, border closures, social distancing and lockdowns reduces the demand for oil. This affects the economies of some African oil-producing countries such as Nigeria, Angola, Algeria and Ghana which are dependent upon crude oil pricing, which has sadly been negatively affected by the COVID-19 pandemic (McKenzie, 2020; African Union, 2020). Thirdly, the mining sector is a major industry in Africa and some sub-Saharan African countries such as Zimbabwe, Zambia and South Africa, which derive a substantial amount of their earnings from the extractive mining industry. Travel restrictions and shutdowns

have resulted in decreasing demand for the produce of the extractive mining industries such as platinum and iron ore (McKenzie, 2020). In South Africa, the mining industry alone employs almost half a million workers, with thousands of those employees working underground. This suggests that the mining work environment is more exposed to the COVID-19 pandemic and can become a catalyst for spreading COVID-19 in South Africa (Mining Review Africa, 2020). Thus, on the other hand, unemployment and retrenchments in the mining sector have been worsened by the ongoing COVID-19 pandemic. Fourthly, COVID-19 induced lockdowns, border closures and the rigid compliance with the COVID-19 protocols have somewhat negatively affected the economies of countries such as Nigeria, South Africa, Ethiopia, Kenya and many other countries in sub-Saharan Africa, owing to huge losses in FDI and the tourism sector (McKenzie, 2020; African Union, 2020). Thus, the poor growth of the tourism industry in most sub-Saharan African countries due to COVID-19 related reasons translate to the redundancy of most employees in the tourist industry. Fifthly, the FDI has reduced significantly through disinvestment, delays and/or cancellation of several projects across Africa. This status quo has magnified the unemployment problem in the sub-Saharan African countries such as Nigeria and South Africa, which were already suffering from a high rate of unemployment prior to the advent of COVID-19 (Ward, 2020, p. 3; African Union, 2020; Lone & Ahmad, 2020). Sixthly, the flow of aid and assistance projects have reduced significantly since the donor countries are equally struggling with overcoming the COVID-19 pandemic. The authors concur with the above submissions. The authors further suggest that the expected poor performance of the economy due to COVID-19 related factors will in turn impact negatively on service delivery and exacerbate an already bad unemployment situation in sub-Saharan Africa.

Africa is likely to experience around 20 million job losses because of COVID-19. As a result, thus, governments of the various African countries are under extreme pressure to create a master plan to deal with the consequences of the COVID-19 pandemic (Lone and Ahmad 2020, p. 1304; Africa Union, 2020). The authors argue that the COVID-19-induced lockdowns have caused high unemployment rates which may lead to social unrest and increase in crime rates in many countries in sub-Saharan Africa, especially in those countries that had underlying social problems such as racial inequality and violent sectarian violence like South Africa and Nigeria. The recent ENDSARS protest that commenced on 8 October 2020 in Nigeria was not unconnected with the growing unemployment, poor service delivery and corruption. ENDSARS protest is a potent mix of social media

campaign and street protests in several Nigerian cities against police brutality and bad governance which started on the (BBC, 2020).

3. Methodology

No empirical research methods are employed in this article. However, a doctrinal and qualitative research method is employed in this article. Consequently, the relevant Nigerian and South African statutes, rules, regulations that were adopted to curb the effects of COVID-19 such as health crises, socio-economic challenges and unemployment are discussed.

4. Overview Analysis of the Nigerian and South African Responses to COVID-19

In the light of the above, the article discusses the relevant statutes, rules, regulations and/or policies that were employed in the sub-Saharan African countries of Nigeria and South Africa in a bid to reduce unemployment and other related negative effects of the COVID-19 pandemic.

4.1. The Nigerian Response to COVID-19

The first case of COVID-19 was first identified in Nigeria on 27th February 2020 (Lone and Ahmad, 2020 p. 1300; Ifijeh and Yusuf, 2020). Prior to the COVID-19 pandemic, Nigeria's unemployment and underemployment rates were already high because it was pegged at 23.1% and 28.6% respectively. However, COVID-19 has increased the unemployment and underemployment rate to 27.1% and 28.6% rates respectively (NBS, 2020, p. 2). Moreover, remittances are important for the Nigerian economy. The Nigerian remittances is larger than both FDI and official development assistance (World Bank, 2020a, p. 5; World Bank, 2020b, p. 31). The authors submit that the current reduction in remittances is most likely caused by the contraction of the global and the migrant's host country's economy. Therefore, some of the migrants lost their jobs due to COVID-19. Similarly, World Bank (2020a, p.5) maintained that apart from the pandemic, agriculture in Nigeria is vulnerable to the effects of agro-climatic change which exacerbates the problem of unemployment.

In a bid to combat the spread of COVID-19, the Nigerian President Buhari assumed emergency powers under the Quarantine Act, 1926 (Quarantine Act). Section 4 of the Quarantine Act gives the president sweeping powers towards "preventing the introduction into and spread in Nigeria, and the transmission from Nigeria, of dangerous infectious diseases" and to make regulations in respect thereof. Thus, President Buhari in pursuance of the Quarantine Act issued series of regulations, such as COVID-19 Regulations, 2020 which declared COVID-19 a "dangerous infectious disease" and made lockdown orders in the affected states. These regulations also prohibit inter and intra state movements in the affected areas for an extended period. The lockdown seems effective because Nigeria infection rate is lower than the African average rate, especially in comparison to its large population (Mennechet & Dzomo, 2020; Osseni, 2020).

In order to stimulate the economy and curb unemployment, the Nigerian House of Representatives initiated and passed an Emergency Economic Input (Stimulus) Bill of 2020 (Stimulus Bill), which provide for the following. Firstly, the Stimulus Bill provides temporary monetary relief for companies and individuals. Secondly, the Stimulus Bill provides protection of the employment status of Nigerians that were affected by the economic adversity of the COVID-19. Thirdly, the Stimulus Bill provides a moratorium for the repayment of mortgage obligations for individuals. Fourthly, the Stimulus Bill caters for the overall well-being of Nigerians in relation to the COVID-19. Nevertheless, this bill is yet to be passed by the Senate and as such, it currently has no legal effect. Even if the bill is eventually passed by the Nigerian senate, it may only curb job losses in the formal sector because it contains no provisions that applies to the informal sector where the poor and most vulnerable are adversely affected by the COVID-19 (Moti & Vambe, 2020, p. 528). Thus, the Stimulus Bill does not combat job losses and unemployment in the Nigerian informal sector.

The President Buhari also presided over an Amendment to the 2020 budget in May 2020. The amended budget is aimed at reprioritizing expenditure to ensure that funds are directed towards providing stimulus to the economy (Budget Office of the Federation, 2020a). The amended 2020 budget includes a fiscal stimulus of №500bn designated as a COVID-19 Intervention Fund aimed at upgrading healthcare facilities, supporting state government interventions, financing public works projects and funding social interventions. The Central Bank of Nigeria (CBN) has also reduced the lending interest rate from 9 percent to 5 percent for the year starting from 1st March 2020 and established a №50bn credit facility targeted

at households and small and medium-sized enterprises that were affected by the COVID-19 pandemic (CBN, 2020a). The CBN also introduced a ₹100bn credit intervention targeted at the indigenous pharmaceutical companies and businesses in the health value chain with a view to enabling them expand capacity to meet potential increased demand for healthcare products and services (CBN, 2020b). The monetary policy response also included the devaluation of the Nigerian Naira (Ejiogu, et al. 2020, p. 528). Furthermore, the Nigerian Private Sector Coalition against COVID-19, a public/private-sector initiative organized under CBN's direction, mobilizes private-sector resources to support government's response to the COVID-19 crisis by raising funds and materials (Jayaram, et al, 2020, p. 12). The administration of the COVID-19 initiatives, especially the distribution of palliative to the vulnerable was however marred by lack of transparency and corruption (Beratazegui, 2020; Ndegwa, 2020). The looting of COVID-19 palliatives that were given to the different state governments for the distribution to the vulnerable and the poor by the private sector during the ENDSARS protest is a case in point (Obiezu, 2020). The various state governments hoarded the palliatives as if the states governments probably intended to use the COVID-19 palliatives for political purposes. The different states governments probably intended to distribute the COVID-19 palliatives during the upcoming local government elections. The monetary and material palliatives that were meant for distribution to the vulnerable were corruptly looted and stolen in most Nigerian states (Eranga, 2020).

4.2. The South African Response to COVID-19

On the 23 of March 2020, President Cyril Ramaphosa announced a nation-wide lockdown in order to curb the spread of the COVID-19 epidemic in South Africa. President Ramaphosa invoked sections 3 and 27(2) of the Disaster Management Act 57 of 2002 (Disaster Act) and declared a national state of disaster in South Africa. In addition, social distancing measures, the use of facemask, isolation of individuals infected with COVID-19 and quarantining of those who may have been exposed to or were in contact with an infected person were also enforced in South Africa. In spite of these precautionary measures, South Africa has the highest number of COVID-19 related deaths and infections in Africa (Mukumbang, Ambe & Adebiyi, 2020, pp. 2-3).

The lockdown of businesses, schools, universities and social distancing have put extreme pressure on the livelihood and all jobs related to face-to-face gatherings in South Africa. The prohibition of gatherings of more than 100 people at a time in 44

South Africa has negatively affected travel-related businesses, airlines, road and rail transport companies, events managers, performers, hotels, caterers, and commercial drivers such as Uber drivers (Naudé & Cameron, 2020, p. 25). At the end of 2019, South Africa's official unemployment rate was 29.1% but it rose to 36.85% in 2020 (Mukumbang, *et al*, 2020, p. 22). Furthermore, South African savings rates have been particularly low over the last decade partly due to the contracted economy, over-dependence on credit and poor service delivery ramping up supplementary costs for safety, health, and education (Naudé & Cameron, 2020, p. 28). These and other related factors have made it more difficult for the government, trade unions and relevant persons in South Africa to manage COVID-19 induced unemployment, retrenchments and underemployment.

Naudé and Cameron (2020, p. 29) argue that the COVID-19 related wide scale loss of income and jobs which give rise to poverty and higher levels of unemployment. Unemployment will lead to the disposal of movable and immovable property of affected persons, in order to meet the immediate needs of such persons. The liquidation and bankruptcy of many businesses due to the onslaught of COVID-19 has culminated in unemployment and a subsequent reduction in tax revenue in South Africa (see also Morrison and Saavedra, 2020, p. 127). The aforementioned negative consequences of the COVID-19 pandemic have led to more job losses, retrenchments and contraction of the South African economy. It is noteworthy that the current high debt profile and rising unemployment is worsened by the COVID-19 pandemic in South Africa (Bhorat, et al, 2020). Thus, creating jobs and combating both unemployment and underemployment is one of the most significant challenges for post-COVID-19 recovery in South Africa (Naudé & Cameron, 2020, p.13). Naude (2020) argues that with rising unemployment, the consumption expenditure will decline and households and firms will increase savings to rebuild depreciated assets, and government investment spending will be diverted to more short-term needs. The significance of the demand-side shock in the case of South Africa is particularly evident from the continuous decline in the country's imports and a drop in domestic demand (Naudé and Cameron 2020, p. 14). The demand contraction is likely to exceed the supply-side shock and create job losses and underemployment challenges in South Africa (Eichenbaum, et al, 2020; Andersen, et al, 2020). The South African government is fiscally constrained and this makes it a tall order for government-related export growth measures to stimulate economic recovery in South Africa. Put differently, the growth of export oriented market seems unrealistic given the current shrinking attribute of the world economy (Naudé & Cameron 2020).

To reduce the impact of the COVID pandemic, the South African government has put in place several economic stimuli and social assistance programmes to create more employment on one hand and to alleviate the sufferings of the unemployed on the other hand. The South African Reserve Bank (SARB) lowered the repurchase rate to 3.5% from 3.75% in a bid to promote lending by commercial banks and to bring down borrowing costs in the domestic market (Trading Economics, 2020). Similarly, workers with an income below a certain threshold are receiving a small tax subsidy for four months and the most vulnerable families are receiving temporarily higher social grants for six months in South Africa. A new six-month COVID-19 grant of 350 South African rand per month is given to unemployed workers that were not receiving any grants or unemployment benefits. Moreover, food parcels were distributed to the poor and the vulnerable in South Africa (South African Institute of Race Relations, 2020). Funds are also made available to assist small and middle enterprises (SMEs) that are under stress, mainly in the tourism and hospitality sectors and small-scale farmers. South Africa's entire social and economic support package is worth 500 billion South African rand or 30 billion United States (US) dollars which is equivalent to ten per cent of its GDP (South African Institute of Race Relations, 2020). However, these support measures may not adequately help those that rely on the informal sectors because of the strict formalization requirements that a lot of informal businesses are unable to comply with in South Africa. For instance, the Spaza Relief Fund for small retail businesses for stock purchases will only be accessible to stores that are registered with Companies and Intellectual Property Commission, the tax revenue office and the unemployed insurance fund (South African Institute of Race Relations, 2020, pp. 29-30).

South Africa's private sector coalition-Business Unity-SA is coordinating large-scale private-sector involvement in addressing both the health and economic aspects of the COVID-19 pandemic. Individual companies across all sectors have been helping the South African government in arresting the COVID-19 menace and curbing unemployment (South African Institute of Race Relations, 2020). For instance, beverage producers are switching production lines to hand sanitizer and apparel manufacturers are producing face masks and hospital robes (South African Institute of Race Relations, 2020). Many companies have also made monetary contributions to solidarity funds for the most vulnerable and those worst affected by the COVID-19 pandemic imposed lockdown in South Africa (Jayaram, *et al*, 2020, p 12). Mismanagement and corruption in the allocation and handling of COVID-19 relief funding is also evident in South Africa. For instance, over 600

corruption cases involving the COVID-19 relief grant is currently being investigated in South Africa (Naudé & Cameron 2020, p. 14; Myburgh, 2020). Despite these commendable efforts, the policy makers did not provide any specific COVID-19 provisions under the Labour Relations Act 66 of 1995 as amended (LRA), the Employment Equity Act 55 of 1998 as amended (EEA) and the Basic Conditions of Employment Act 75 of 1997 as amended (BCEA), to curb unemployment, retrenchments and underemployment challenges in South Africa.

5. The Adequacy of Nigerian and South African Responses to the Covid-19 Pandemic

The governments of Nigeria and South Africa have adopted similar measures, programmes, rules, regulations and policies to prevent the spread of COVID-19 as well as to provide relief to the affected persons and to stimulate economic recovery. Such measures include, inter alia, lockdown of businesses, schools, universities, social distancing, COVID-19 testing, quarantining those exposed to the COVID-19, closure of borders and ports of entry and banning of all social gatherings. Both Nigeria and South Africa adopted some measures to reduce the interest rates and provide some stimulus packages to kick start economic recovery and curb further job losses in all sectors of their respective economies. Nigeria and South Africa were also granted International Monetary Fund (IMF) loans of US\$3.4 and US\$4.3 billion respectively, as emergency support to address the problems created by the COVID-19 pandemic (IMF, 2020). Nevertheless, the COVID-19 related policies, rules and regulations, especially the total lockdowns adopted in both Nigeria and South Africa were rigidly enforced without due consideration of the possible negative effects which they could have on their respective economies. Moreover, the management of the COVID-19 related fund in Nigeria and South Africa is marred by corruption (Naudé & Cameron 2020; Myburgh, 2020; Eranga, 2020; Beratazegui, 2020; Ndegwa, 2020). Although, it may be too early to ascertain the effectiveness of the policies enunciated above in reducing poverty, total economic collapse and unemployment in Nigeria and South Africa, such policies will fail unless corruption is completely eradicated.

The adopted COVID-19 policies, rules, laws, protocols and/or regulations have so far failed to prevent job losses and underemployment challenges in Nigeria and South Africa. The Nigerian government created a fine national policy on COVID-19 science-based education but it is not effectively enforced by the relevant persons

(National Policy on Education, 2014; Okoroma, 2006; Akpan, 2010; Osam, 2016). Similarly, in South Africa, the Reconstruction and Development Programme (RDP) was adopted in 1994, in an attempt to balance the contradictory pressures of equality and economic development (Fataar, 2008, p. 99). However, Growth, Employment and Redistribution Strategy (GEAR) was adopted to replace the RDP in 1996. GEAR showed a clear preference for a growth-first strategy in which redress for past social injustice during the apartheid era was the priority (Fataar, 2008, p. 99; Spreen & Vally, 2006). However, this is gradually being replaced by emphasizing more on Science, Technology, Engineering and Mathematics (STEM), multiple technologies (process technologies, manufacturing technologies, agri-technologies and biotechnologies (Ankiewicz, 2021, pp. 939-963; White Paper on Education, 1995; Chisholm, et al, 2000). However, the transition is bedeviled by the dearth of qualified personnel to anchor the programme as well as pedagogical and logistical challenges (Ankiewicz, 2021, pp. 939-963). None of these policies were relevant and/or effectively employed to curb COVID-19 and all its possible negative effects in South Africa. The South African government and its policy have so far failed to adopt viable COVID-19 policies and/or related measures to curb unemployment, health challenges and socio-economic challenges that are associated with COVID-19 in South Africa.

The Nigerian federal government failed to recognize high population growth as a problem until the 1980s, when the price of crude oil in the international market fell, thus the first population policy aimed at reducing population was made in 1988 (Federal Republic of Nigeria, 1988; Michael and Odeyemi, 2017, p. 104). However, the policy has not been effective due to many reasons, such as, religious reasons, the lack of political will on the part of the government to provide incentives for having smaller families and providing enough resources to procure birth control devices (Michael & Odeyemi, 2017). It is imperative to state that this rapid population growth has affected the capacity of Nigeria to provide employment opportunities to all eligible persons. This status quo is now worsened by COVID-19 pandemic. Nigeria's population is estimated at over 200 million with an annual growth rate of +2.5% and a total fertility rate of 5.4 live births per woman (NBS, 2020). In contrast, South Africa has a population of about 59 million with an annual growth rate of +1.28% and a total fertility rate of 2.4 live births per woman as against the global rate of 2.37 per woman (Worldometer, 2020; UNICEF, 2019). The lower growth rate of population in South Africa may be connected with a more commitment stance to the population policy and the legalization of abortion through the enactment of the Choice on Termination of

Pregnancy Act 92 of 1996. Thus, South Africa is more successful at population reduction through family planning than Nigeria. It is submitted that both Nigeria and South Africa should adopt adequate policies and relevant measures that are effectively and pragmatically enforced to revive their economies and create jobs for all eligible persons during and after the COVID-19 pandemic.

6. Concluding Remarks

As indicated above, various approaches and measures taken by the governments of two sub-Saharan African countries of Nigeria and South Africa to curb the spread of the dreaded COVID-19 and its detrimental effects on the economy, particularly, unemployment and underemployment were discussed. The article also analysed the adequacy of the laws, rules, regulations and policies that were adopted to curb COVID-19 and its effects on the economy, unemployment, underemployment and under other related challenges in South Africa and Nigeria. It was noted the COVID-19 response of Nigeria and South Africa is marred by corruption and the adoption of flawed policies that are rigidly enforced in these two countries. Given this background, it is submitted that both Nigeria and South Africa should carefully adopt adequate policies to ameliorate the negative effects of COVID-19 on the economy and health systems. Such policies should also deal with the challenges of unemployment and underemployment that have been exacerbated by the COVID-19 in Nigeria and South Africa.

Both South Africa and Nigeria should take objective and pragmatic measures that are effectively enforced to curb corruption, nepotism, fraud and other crimes that have negatively affected the proper administration of COVID-19 relief aid and palliatives for the poor and vulnerable persons. Thus, Nigeria and South Africa should embark on a vigorous enforcement of their anti-corruption laws to deter and punish those that are stealing COVID-19 relief aid. Nigeria and South Africa should reconsider amending their labour laws and policies to ensure that the youth are considered and provided with employment, relevant training, cash incentives, internships and apprenticeships as a way of combating unemployment rates which have been worsened by the COVID-19 pandemic. Adequate social protection programmes must be provided to all those affected by the COVID-19 pandemic in Nigeria and South Africa. Lastly, Nigeria and South Africa should amend their COVID-19 economic and socio-economic recovery policies to ensure that they are applicable to both the formal and informal sectors of their respective economies.

7. References

African Union. (2020). *Impact of the Coronavirus (COVID-19) on the African Economy*. https://www.tralac.org/documents/resources/covid-19/3218-impact-of-the-coronavirus-covid-19on-the african-economy-african-union-report-april2020/file.html last accessed 21 October 2021.

Akanni, L. O. & Gabriel, S. C. (2020). *The Implication of COVID-19 on the Nigerian Economy*. http://cseaafrica.org/the-implication-of-covid19-on-th-nigerian-economy/ last accessed 22 March 2020.

Akpan, B. B. (2010). Innovations in Science and Technology Education through Science Teacher Associations. *Science Education International*, 21(2), pp. 67-79.

Akuthson, S.; Messiah, A. J. & Araf, Y. D. (2018). The Impact of Unemployment on Economic Growth in Nigeria: An Application of Autoregressive Distributed Lag (ARDL) Bound Testing. *Sumerianz Journal of Business Management and Marketing*, 1(2), pp. 37-46.

Al-Awadhi, A. M.; Alsaifi, K.; Al-Awadhi, A. & Alhammadi, S. (2020). Death and Contagious Infectious Diseases: Impact of the Covid-19 Virus on Stock Market Returns. *Journal of Behavioral and Experimental Finance*, 27, pp. 1-6.

Al-qaness, M. A. A.; Ewees, A. A.; Fan, H. & Aziz, M. A. E. (2020). Optimization Method for Forecasting Confirmed Cases of COVID-19 in China. *J. Clin. Med*, pp. 1-15.

Andersen, A.; Hansen, E.; Johannesen, N. & Sheridan, A. (2020). Consumer Responses to the COVID-19 Crisis: Evidence from Bank Account Transaction Data. *CEBI Working Paper Series* 18/20. University of Copenhagen.

Anderson, R.; Heesterbeek, H.; Klinkenberg, D. & Hollingsworth, T. (2020). How will Country-Based Mitigation Measures Influence the course of the COVID-19 Epidemic? *The Lancet*, 395, pp. 931–934.

Ankiewicz, P. (2021). Technology Education in South Africa since the New Dispensation in 1994: An Analysis of Curriculum Documents and a Meta-Synthesis of Scholarly Work. *International Journal of Technology and Design Education*, 31(5), pp. 939-963.

Arndt, C.; Davies, R.; Gabriel, S.; Harris, L.; Makrelov, K.; Modise, B.; Robinson, S.; Simbanegavi, W.; van Seventer, D. & Anderson, L. (2020). Impact of Covid-19 on the South African Economy: An Initial Analysis. *Southern Africa—Towards Inclusive Economic Development*, https://satied.wider.unu.edu/sites/default/files/pdf/SA-TIED-WP-111.pdf last accessed 23 August 2021.

Baker, S. R. N.; Bloom, S. J.; Davis, Kost, K. J.; Sammon, M. C. & Viratyosin. T. (2020). The Unprecedented Stock Market Impact of COVID-19. *NBER Working Paper* No. 26945. https://www.nber.org/papers/w26945 last accessed 13 May 2021.

Baker, T. & Judge, K. (2020). How to Help Small Businesses Survive COVID-19. *Law in the Time of COVID-19*. K. Pistor (ed.), Columbia Law School Books, New York, USA.

Bauer, G. K. (2020). *Beyond the Western Gaze-Africa Is a Country*. https://africasacountry.com/2020/05/beyond-the-western-gaze last accessed 13 May 2021.

BBC (2020). *How the End SARS Protests Have Changed Nigeria Forever*. https://www.bbc.com/news/world-africa-54662986 last accessed 12 April 2020.

Beratazegui, M. E. (2020). *The IMF, COVID-19 and Anti-Corruption: The Story so far Transparency International*. https://www.transparency.org/en/blog/the-imf-covid-19-and-anti-corruption-the-story-so-far last accessed 12 April 2020.

Bessa, M. (2020). Africa's Disproportionate COVID-19 Pandemic. *E-International Relations*. https://www.e-ir.info/2020/06/02/africas-disproportionate-covid-19-pandemic/MARCELLEBESSA last accessed 12 April 2020.

Bhorat, H.; Kohler, T.; Oosthuizen, M.; Stanwix, B.; Steenkamp, F. & Thornton, A. (2020). The Economics of Covid-19 in South Africa: Early Impressions. *DPRU Working Paper* 202004, University of Cape Town.

Budget Office of the Federation. (2020a). *Addendum to the 2020-2022 Medium Term Expenditure Framework & Fiscal Strategy Paper*. Budget Office of the Federation & Federal Ministry of Finance, Budget and National Planning, Abuja.

Budget Office of the Federation (2020b). *Medium Term Expenditure Framework & Fiscal Strategy Paper*. Budget Office of the Federation & Federal Ministry of Finance, Budget and National Planning, Abuja.

Central Bank of Nigeria (2020a). Circular to Deposit Money Banks and the General Public on: CBN Policy Measures in Response to COVID-19 Outbreak and Spillovers. https://www.cbn.gov.ng/Out/2020/FPRD/CBN%20POLICY%20MEASURES%20IN%20RESPONS E%20TO%20COVID-19%20OUTBREAK%20AND%20SPILLOVERS.pdf last accessed 12 April 2020.

Central Bank of Nigeria. (2020b). Circular to Deposit Money Banks and the General Public on: Guidelines for the Operation of the N100 Billion Credit Support for the Healthcare Sector. https://www.cbn.gov.ng/Out/2020/FPRD/health careintervention.pdf last accessed 12 August 2020.

Chisholm, L.; Volmink, J.; Ndhlovu, T.; Potenza, E.; Mahomed, H.; Muller, J.; Lubisi, C.; Vinjevold, P.; Ngozi, L.; Malan, B. & Mphahlele, L. (2000). A South African Curriculum for the Twenty First Century. *Report of the Review Committee on Curriculum 2005*'. Pretoria, South Africa.

Corbet, S.; Larkin, C. J. & Lucey, B. M. (2020). *The Contagion Effects of the COVID-19 Pandemic: Evidence from Gold and Cryptocurrencies*. https://ssrn.com/abstract=3564443orhttp://dx.doi.org/10.2139/ssrn.3564443 last accessed 12 April 2020.

Corbet, S.G.; Hou, Y.; Hu, B.; Lucey, M. & Oxley, L. (2020). *Aye Corona! The Contagion Effects of Being Named Corona during the COVID-19 Pandemic*. https://ssrn.com/abstract=3561866orhttp://dx.doi.org/10.2139/ssrn.3561866 last accessed 12 April 2020.

Dandara, C.; Dzobo, K. & Chirikure, S. (2020). "COVID-19 Pandemic and Africa: From the Situation in Zimbabwe to a Case for Precision Herbal Medicine". *OMICS-A Journal of Integrative Biology*, 24, pp. 1-5.

Deutsche Welle-Africa. (2020). World Bank: No African Country can face this Crisis Alone. https://www.dw.com/en/world-bank-no-africancountry-can-face-this-crisis-alone/a-53142901 last accessed 12 April 2021.

Dzobo, K., Chiririwa, H., Dandara, C; and Dzobo, W. (2020), "Coronavirus Disease-2019 Treatment Strategies Targeting Interleukin-6 Signaling and Herbal Medicine". *OMICS-A Journal of Integrative Biology*, 24, pp.1-10.

Eichenbaum, M.; Rebelo, S. & Trabandt, M. (2020). The Macroeconomics of Epidemics. *NBER Working Paper* No. 26882. National Bureau of Economic Research.

Eranga, I. O. (2020). COVID-19 Pandemic in Nigeria: Palliative Measures and the Politics of Vulnerability. *International Journal of Maternal and Child Health and AIDS*, 9(2), pp. 220-222

Ex parte: van Heerden (2020) (1079/2020) ZAMPMBHC 10 (27 March 2020).

Fataar, A. (2008). Education Policy Reform in Post-apartheid South Africa: Constraints and Possibilities. In *The Education of Diverse Student Populations: A Global Perspective*, G. Wan (ed.), Springer Science, Durban, South Africa.

Federal Republic of Nigeria (2004). *National Policy on Population for Sustainable Development*. Lagos: Federal Ministry of Health.

Fernandes, N. (2020). *Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy*. http://dx.doi.org/10.2139/ssrn.3557504 last accessed 12 June 2020.

Golub, S. & Hayat, F. (2014). Employment, Unemployment and Underemployment in Africa. *WIDER Working Paper* 2014/014-26, UN University, Helsinki, Finland. https://www.wider.unu.edu/sites/default/files/wp2014-014.pdf last accessed 25 July 2021.

Gondwe, G. (2020). Assessing the Impact of COVID-19 on Africa's Economic Development. *United Nations Conference on Trade and Development*. UNCTAD/ALDC/MISC/2020/3.

Gralinski, L. E. & Menachery, V. D. (2020). Return of the Coronavirus: 2019-nCov. *Viruses*, 12(2), pp. 1-8.

Hale, T.; Petherick, A.; Phillips, T. & Webster, S. (2020). Variation in Government Responses to COVID-19. *BSG Working Paper*-BSG-WP-2020/031, https://www.bsg.ox.ac.uk/sites/default/files/2020-04/BSG-WP-2020-031-v4.00.pdf. last accessed 13 June 2021.

Henney, M. (2020). What is the Difference between Unemployment and underemployment? *Fox Business*. https://www.foxbusiness.com/economy/what-is-the-difference-between-unemployment-and-underemployment last accessed 13 June 2021.

Ifijeh, G. & Yusuf, F. (2020). Covid-19 Pandemic and the Future of Nigeria's University System: The Quest for Libraries' Relevance. *The Journal of Academic Librarianship*, pp. 1-8.

Igwe, P. A. (2020). Coronavirus with Looming Global Health and Economic Doom. *African Development Journal of Research Methodology*, 1(1), pp. 1-6.

IMF (2020). *IMF Press Release*. https://www.imf.org/en/News/Articles/2020/ 07/27/pr20271-south-africa-imf-executive-board-approves-us-billion-emergency-support-covid-19-pandemic last accessed 21 June 2021

Jayaram, K.; Leke, A.; Ooko-Ombaka, A. & Sun, Y. S. (2020). *Tackling COVID-19 in Africa*. https://www.mckinsey.com/featured-insights/middle-east-and-africa/tackling-covid-19-in-africa last accessed 14 June 2021.

John, E. A. (2020). COVID-19 Pandemic, A War to Be Won: Understanding its Economic Implications for Africa. *Appl. Health Econ Health Policy*, pp. 1–4.

Johns Hopkins University. (2020). Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering. https://www.arcgis.com/apps/opsdashboard/index last accessed 14 June 2021.

Li, Q.; Guan, X.; Wu, P. & Wang, X. (2020). Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia. *New England Journal of Medicine*, 382, pp. 1199-1207.

Lone, S.A. & Ahmad, A. (2020). COVID-19 Pandemic – An African Perspective Emerging Microbes & Infections, 9(1), pp. 1300-1308.

McKenzie, B. (2020). *The Impact of Covid-19 on Key African Sectors*. https://www.bakermckenzie.com/en/insight/publications/2020/03/the-impact-of-covid19-on-key-africansectors last accessed 14 March 2021.

McKibbin, W. & Fernando, R. (2020). The Global Macroeconomic Impacts of COVID19 Seven Scenarios. *CAMA Working Paper* 19/2020. https://ssrn.com/abstract=3547729 last accessed 14 June 2021.

McQuoid-Mason D. J. (2020). COVID-19 and Patient-Doctor Confidentiality. *South Africa Medical Journal*, 110(6), pp. 461-462.

Mennechet, F. J. D. & Dzomo, G. R. T. (2020). Coping with COVID-19 in Sub-Saharan Africa: What Might the Future Hold?. *Virol Sin.*, pp. 1–10.

Michael, T. O. & Odeyemi, M. A. (2017). Nigeria's Population Policies: Issues, Challenges and Prospects. *Ibadan Journal of the Social Sciences*, 15(1), pp. 104 117.

Mining Review Africa (2020). *The Impact of COVID-19 on the Mining Sector*. https://www.miningreview.com/investment/theimpact-of-covid-19-on-the-global-mining-sector/. last accessed 14 June 2021.

Moodley, K. & Obasa A.E. (2020). Isolation and quarantine in South Africa during COVID-19: Draconian measures or proportional response? *South Africa Medical Journal*, 110(6), pp. 456-457.

Moore, M.; Gelfeld, B.; Okunogbe, A. & Paul, C. (2017). Identifying Future Disease Hotspots: Infectious Disease Vulnerability Index. *Rand Health Q*, 6(5), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5568150/ last accessed 14 June 2020.

Morrison, E. R & Saavedra, A. C. (2000). Bankruptcy's Role in the COVID-19 Crisis. *Law in the Time of COVID-19*, Pistor, K. (ed). Columbia Law School, New-York, USA.

Moti, U. G. & Vambe, J. T. (2020). Responding to Coronavirus Pandemic in Nigeria: The Policy Dilemma of a Vulnerable Nation-A Review. *International Journal of Health, Safety and Environment*, 6(4), pp. 526 – 533.

Mukumbang, F. C.; Ambe, A. N. & Adebiyi, B. O. (2020). Unspoken inequality: How COVID-19 has Exacerbated Existing Vulnerabilities of Asylum-Seekers, Refugees and Undocumented Migrants in South Africa. *International Journal for Equity in Health*, 19(141), pp. 1-7.

Myburgh, P. L. (2020). Ace Magashule's Sons each bag a Free State Covid-19 Contract. *The Daily Maverick*.

National Bureau of Statistics (2020). Labor Force Statistics: Unemployment and Underemployment Report under Covid-19, pp. 1-90. https://www.nigerianstat.gov.ng/pdfuploads/q2_2020_unemployment_report.pdf last accessed 11 June 2021.

National Policy on Education (2014), Nigerian Educational Research and Development Council Press, Lagos.

Naudé, W. & Cameron M. (2020). Failing to Pull Together: South Africa's Troubled Response to COVID-19. *Institute of Labor Economics Discussion Paper IZADP* No. 13649. http://ftp.iza.org/dp13649.pdf last accessed 14 June 2021.

Naude, W. (2020). Entrepreneurial Recovery from COVID-19: Decentralization, Democratization, Demand, Distribution, and Demography. *IZADP* No. 13436, Institute of Labor Economics, Bonn, Germany.

Ndedi, A. A. (2020). *The Aftermath of the Coronavirus in Selected African Economies*. https://ssrn.com/abstract=3565931 last accessed 14 March 2021.

Ndegwa, A. (2020). Africa: How Billions Worth of Covid-19 Funds Were Stolen in Africa. *Daily Nation*. https://allafrica.com/stories/202009070230. html last accessed 14 June 2021.

NDoe (National Department of education). (1995). White Paper on Education and Training. Notice 196, 15 March. WPJ/1995. Pretoria, South Africa.

Nunley, J. M.; Pugh, A.; Romero, N. & Seals, R.A. (2017). The Effects of Unemployment and Underemployment on Employment Opportunities: Results from a Correspondence Audit of the Labor Market for College Graduates. *ILR Review*, 70(3), pp. 642–669.

Obiezu, T. (2020). *Nigerians Justify Massive Looting of COVID-19 Supplies. VOA*, October 27, https://www.voanews.com/covid-19-pandemic/nigerians-justify-massive-looting-covid-19-supplies last accessed 14 June 2021.

Odigbo, B.; Eze, F. & Odigbo, R. (2020). COVID-19 Lockdown Controls and Human Rights Abuses: The Social Marketing. *Emerald Open Research*, 2(45), pp. 1-7.

Okoroma, N. S. (2006). Educational Policies and Problems of Implementation in Nigeria. *Australian Journal of Adult Learning*, 46(2), pp. 243-263.

Onali, E. (2020). *COVID-19 and Stock Market Volatility*. https://ssrn.com/abstract=3571453orhttp://dx.doi.org/10.2139/ssrn.357145 last accessed 14 January 2021.

Osam, I. (2016). Managing the Role of Science and Technology Education Programs in Promoting Enterprises for National Development in Nigeria. *International Journal of Scientific Research in Education*, 9(2), pp. 97-104.

Osseni, I. A. (2020). COVID-19 Pandemic in sub-Saharan Africa: Preparedness, Response, and Hidden Potentials. *Trop Med Health*, 48. https://doi.org/10.1186/s41182-020-00240-9 last accessed 14 June 2021.

Ozili, P. K. & Arun, T. (2020). *Spillover of COVID-19: Impact on the Global Economy*. https://ssrn.com/abstract=3562570orhttp://dx.doi.org/ 10.2139/ssrn.3562570 last accessed 14 June 2021.

South African Institute of Race Relations (2020). COVID-19: How South Africa Can Save Life and Livelihood. *SAIRR*, Johannesburg, South Africa.

Spreen, C. A. & Vally, S. (2006). Education Rights, Education Policies and Inequality in South Africa. *International Journal of Educational Development*, pp. 1-11.

Todaro, M. P. (2000). Economics of Development. New York University, USA.

Trading Economics. (2020). *South Africa Interest Rate*. https://tradingeconomics.com/south-africa/interest-rate last accessed 14 June 2021.

UN Economic Commission for Africa (2020). COVID-19: Lockdown Exit Strategies for Africa. *Publications and Conference Management Section Economic Commission for Africa Addis Ababa*. Ethiopia.

UN. (2020). *Political definition of Major regions, according to the UN.* https://web.archive.org/web/20100420040243/http://esa.un.org/unpp/definition.html last accessed 14 June 2021.

UNICEF. (2019). Population Dynamics and the Demographic Dividend Potential of Eastern and Southern Africa: A Primer. https://www.unicef.org/esa/media/4961/file/UNICEF-ESA-Population-Dynamics-Demographic-Dividend-Potential-Nov-2019.

Ward, M. (2020). South Africa's COVID-19 Lockdown Dilemma. *Emerald Emerging Markets Case Studies*, 10(3), pp. 1-10.

World Bank (2020a). Nigeria in Times of COVID-19: Laying Foundations for a Strong Recovery. International Bank for Reconstruction and Development, Washington DC, USA.

World Bank. (2020b). Assessing the Economic Impact of Covid-19 and Policy Responses in Sub-Saharan Africa. https://reliefweb.int/sites/reliefweb.int/files/resources/9781 464815683.pdf last accessed 14 June 2021.

Worldometer. (2020). South Africa Demographics. https://www.worldometers.info/demographics/south-africa-demographics/ last accessed 21 October 2021

Zarembaa, A.; Kizysc, R.; Aharond D. Y. & Demir, E. (2020). Infected Markets: Novel Coronavirus, Government Interventions, and Stock Return Volatility around the Globe Finance. *Research Letters*, 25, pp. 1-7.

Zhang, D.; Hu, M, & Ji, Q. (2020). Financial Markets under the Global Pandemic of COVID-19. *Finance Research Letters*, 36, pp. 1-7.