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# THE INFLUENCE OF CHINA'S FOREIGN DIRECT INVESTMENT ON THE ECONOMIC AND POLITICAL FRAMEWORK OF AFRICA (A CASE STUDY OF NIGERIA)

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#### Abstract

China has been spreading its tentacles across continents particularly sub-Saharan Africa and Nigeria. The objective of this paper is to investigate the influence of Foreign direct investment on the economic and political framework of Africa, using Nigerian as a case study. The foreign direct investments from China to Africa and particularly to Nigeria has not been received well in the pool of public opinion. However, the benefits the investment pool has on the economic and political framework is positive. Yet, researchers, believe that caution should be taken to avoid excessive FDI from China. The method of regression analysis was employed to prove the relationship between FDI inflow and annual GDP. The result showed that there is a strong and significant influence of FDI on GDP and vice versa.

**Keywords**: Foreign Direct Investment, Gross Domestic Product, China, Nigeria, Political Framework, Economic Framework.

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#### 1. Introduction

The public's opinion in international affairs holds a significant role. Challenges and opportunities of international affairs must be carefully and strategically forecasted and assessed by policymakers because the opinion of the public can be a deciding factor that changes the course of politics. And as the world becomes more and more globally connected, it is imperative to understand how China is perceived and how this perception affects the world.1 The extent of China's trade with Nigeria and Africa appears to be generally considered as seen in the consistency with China's interaction with other international markets and also her ability to almost produce anything of high quality at low cost which is having a huge influence on the global economy.<sup>2</sup> According to a study conducted by Lawal (2010), there is a probable explanation for the robust relationship that exists between indicators of economic development and corruption level. The relationship is such that development is hinged on good governance as economic development creates the demand for a good institution. Therefore, the world over, the emphasis on good governance is predicated on the output it generates which included but is not limited to 1. higher economic development level, 2. higher quality of life, 3. higher average income, and 4. less corrupt but more democratic society". Based on controlling corruption to re-enforce the need for infrastructural development which will pave way for more economic growth and development, the China-Nigeria relationship became imperatively important. This is because China has characterized itself with its trade relations with Nigeria of 7.6% accounting for \$7.2billion in 2018.<sup>3</sup>

Olugboyega et al, and Adewumi & Akinnuga, suggested that "even though China-Nigeria relationship dates back to 1971, the dimension and nature of economic interactions between them required a careful and detailed analysis of their relationship with the prospect of establishing its

<sup>&</sup>lt;sup>1</sup> Sunday Adiyoh Imanche, Tian Ze1, Moses Chia Ayom, S. G. Dalibi, "An Assessment of Nigerians Perception towards Chinese Foreign Direct Investments and Its Acceptability in Nigeria", in *Open Journal of Business and Management*, 2021, 9, pp. 1151-1168.

<sup>&</sup>lt;sup>2</sup> Ibidem, p. 118.

<sup>&</sup>lt;sup>3</sup> Abada, Chika Felicia, Tobechukwu C. Leo-Nnoli, Abada, Michael Ifeanyichukwu & Omeh, Paul Hezekiah, "Politics of BRICS: Re-engaging Nigeria-China trade relations and development of manufacturing industries in Nigeria", in *University of Nigeria Journal of Political Economy*, 2021, 11, pp. 32-47.

potential impact on the economies".4,5 The political and economic challenges Nigeria is experiencing since its return to democracy has tremendously inhibited the growth of the country.<sup>6</sup> The anticipation that developmental constriction can be resolved by democracy has opened a channel of attraction for analysing the connection between corruption, political instability, and economic growth.<sup>7</sup> Hence, the complementarity economic relationship between China and Nigeria is revealed because of 1. major deficit in infrastructure progress, complemented with huge investment needs, 2. China's ability to have developed one of the biggest and most viable construction industries in the world, with critical consideration on civil works in infrastructural development and 3. China's ability to provide the needed financial assistance to countries and indeed Nigeria.<sup>8</sup> However, a strong recommendation for caution is made that as much as Nigeria develops trade benefits with the Chinese Government, protectionist policies should be swiftly put in place to protect the small and indigenous businesses within the country which is also seen across Africa.9

The objective of this research is to find out the connection the influence the Chinese FDI has on the economic growth of Africa with a specific focus on Nigeria.

# 2. Literature Review

The underlying concern of foreign direct investment (FDI) as a growth and development tool has been comprehensively examined and described in economic development literature; however, the resultant

<sup>&</sup>lt;sup>4</sup> Olugboyega, A. Oyeranti, M. Adetunji Babatunde, E. Olawale Ogunkola and Abiodun, S. Bankole, "The Impact of China-Africa Investment Relations: The Case of Nigeria", in *AERC Collaborative China - Africa Project*, 2010, 8, pp. 1-6

<sup>&</sup>lt;sup>5</sup> Eyitayo Folashade Adewumi, Samuel Oluwatobiloba Akinnuga, "Beyond Rail Revolution: Rethinking Nigeria-China Relations for the Next Decade", in *KIU Journal of Humanities; Kampala International University*, 2021, 6.2, pp. 33-39.

 <sup>&</sup>lt;sup>6</sup> <sup>7</sup> Lawal Rahanatu," Trends of Corruption, Economic Growth and Political Instability in Nigeria-2002-2018", in *SAU Journal of Management and Social Sciences*, 2020, 5.2, pp. 36-44.
 <sup>7</sup> *Ibidem*, p. 118.

<sup>&</sup>lt;sup>8</sup> *Ibidem*, p. 33.

<sup>&</sup>lt;sup>9</sup> *Ibidem*, p. 1.

disagreement lies mainly unresolved.<sup>10</sup> However, substantial study efforts have continued to be directed to finding the main supporting causes of FDI as well as its influences on growth and other related effects. The reasoning behind these mutually joint efforts at the point of academics and policymaking is mainly associated with the possible advantages obtainable from FDI by the host countries.<sup>11</sup> Among the key benefits of FDI is the bridging of the savings-investment gap, particularly in developing countries suffering from a dearth of resources to meet their overall investment obligations. Additionally, its influence on technology transfer, creation of employment, stimulation of domestic competition and economic growth has been well recognized.<sup>12</sup>,<sup>13</sup> But it must be pointed out that GDP has its defects particularly in measuring final output which includes difficulties of distinguishing between final intermediate products that may result in double counting.14 Awareness, in recent years, has been unwaveringly fixated on China's economic progress. China has received much attention as it has appeared in recent years as a key actor on the world economic stage, by expanding relations with other emerging states; this is importantly seen in how the Sino-African relations have increased since 2000.<sup>15</sup> Due to the attraction of the emerging economies to FDI, several studies have examined the role of foreign capital flows to the emerging markets and developing countries. Most researchers agree that foreign capital flows, especially FDI, contribute to domestic savings and investments.16 The demand for economic development has concerned policymakers across the years. Particularly the transnational south such as

<sup>&</sup>lt;sup>10</sup> Fiza Qureshi, Saba Qureshi, Xuan Vinh Vo, Ikramuddin Junejo, "Revisiting the nexus among foreign direct investment, corruption and growth in developing and developed markets", in *Borsa Istanbul Review*, 2021, 21-1, pp. 80-91.

<sup>&</sup>lt;sup>11</sup> Suleiman Zangina and Sallahuddin Hassan, "Corruption and FDI Inflow to Nigeria: A Nonlinear ARDL Approach", in *Journal of Financial Crime*, 2020, 27.2, pp. 635–650.

<sup>&</sup>lt;sup>12</sup> Josef C. Brada, Zdenek Drabe, Ichiro Iwasaki, "Does Investor Protection Increase Foreign Direct Investment? a Meta-Analysis" in *Journal of Economic Surveys*, 35:1, 2021, pp. 34–70.

<sup>&</sup>lt;sup>13</sup> Ibidem.

<sup>&</sup>lt;sup>14</sup> *Ibidem*, p. 68

 <sup>&</sup>lt;sup>15</sup> Carike Claassen, Elsabé Loots and Henri Bezuidenhout, "Chinese Foreign Direct Investment in Africa", in *African Journal of Business Management*, 2012, 6:47, pp. 11583-11597.
 <sup>16</sup> Jian Zhang, Ilan Alon, Yanan Chen, "Does Chinese investment affect Sub-Saharan African

growth?", in International Journal of Emerging Markets, 2014, 9:2, pp. 257-275.

Nigeria, which is tormented with an infrastructural deficit and less foreign direct investment and financial development attraction, has had the attention of stakeholders and government officials drawn for exploration of different ways for sustainable development, which corresponds with the United Nations Sustainable Development Goals-8 (UNSDG's).<sup>17</sup>

According to Mohammed, "For decades, the influence of China in Africa has been growing and has raised many questions on the real intention of the Chinese state; although economic growth in African has been lethargic, China has, however, seen extraordinary economic growth and relative social stability. Furthermore, China has taken on global roles as political and economic power and put its money where its mouth is".<sup>18</sup> Having an economy of over USD 12.0 trillion and a population of 1.39 billion, China has extended its dominance far beyond Asia,<sup>19</sup> by leveraging on global organizations and contracts<sup>20</sup> to wield its presence internationally.<sup>21</sup> To be able to pursue the maximum profit on investment, economists and other experts tend to support the open movement of capital across national borders.<sup>22</sup> Every country of the world, especially developing economies, strives to attract foreign direct investment (FDI) because it is a major source of external finance.<sup>23</sup>,<sup>24</sup>,<sup>25</sup>,<sup>26</sup>, What FDI does is to afford the

<sup>&</sup>lt;sup>17</sup> Lukman A. Olorogun, Monsurat A. Salami, Festus Victor Bekun, "Revisiting the Nexus between FDI, financial development and economic growth: Empirical evidence from Nigeria", in *Journal of Public Affairs*, 2020, pp. 1-10.

<sup>&</sup>lt;sup>18</sup> Abdullahi Mohammed, "China-Nigeria Relations: An Opportunity or Opportunism?", in *Tallinn University of Technology School of Business and Governance Department of Law*, 2019, pp. 1-41

<sup>&</sup>lt;sup>19</sup> Corina Joseph, Juniati Gunawan, Nero Madi, Tamoi Janggu, Mariam Rahmat, "Realising Sustainable development Goals via online integrity framework disclosure: Evidence from Malatsian and Indosesian local Authorities", in *Journal of Cleaner Production*, 2019, 215, pp. 112-122.

<sup>&</sup>lt;sup>20</sup> Abdullahi Mohammed, op.cit.

<sup>&</sup>lt;sup>21</sup> Mohammed Belal Uddin, Md. Riad Hassan, Kazi Md. tarique, "Three-Dimensional Aspect of Corporate Social Responsibility", in *Daffodil International University Journal of Business and Economics*, 2008, 3:1, pp. 199-212.

<sup>&</sup>lt;sup>22</sup> Sergiu Nwannebuike Udeh, John Onyemeachi Odo," Impact of Foreign Direct Investment on the Economic Growth of Nigeria", in *Journal of Global Accounting*, 2017, 5:2, pp.10-17.

<sup>&</sup>lt;sup>23</sup> Panagiotis G. Liargovas, Konstantinos S. Skandalis, "Foreign Direct Investment and Trade Openness: The Case of Developing Economies" in *Social Indicators Research*, 2012, 106, pp. 323–331.

countries with little capital, the opportunity to get finance from wealthier countries. Several experts mentioned that foreign direct investment (FDI) has the potential of turning up the economic growth practice of developing countries.<sup>27</sup> As a country, Nigeria is considered a high-risk market for investment because of such factors as 1. governance, 2. unstable macroeconomic policies, 3. insecurity, 4. policy inconsistency, and 5. increased window dressing in financial statements presentation. Pragmatically re-investigating the relationship concerning foreign direct investment (FDI), financial development, total labour force, gross capital formation, and economic growth using Nigeria an example for Africa and Sub-Saharan countries explicitly, revealed that FDI influences GDP. Thereby suggesting that economic growth is directly influenced by FDI indicative of the policymakers.<sup>28</sup>

#### 2.1 A Case of China's FDI strategy to Africa.

The influence that international trade is having on economic growth remains the major subject of theoretical and policy perspectives. The benevolent influence of the China-Africa trade and the Foreign Direct investment of China on the economic growth of African countries remains dependent upon a suitable strategy to improve the institutional quality of African countries and the synergies between them.<sup>29</sup> The relations between contemporary China and Africa can be traced back to the Bandung Conference in Indonesia – the first important meeting of Asian and African

<sup>&</sup>lt;sup>24</sup> John C. Anyanwu, "Why does foreign direct investment go where it goes? New evidence from African countries", in *Annals of Economics and Finance*, 2012, 13:2, pp. 425–462.

<sup>&</sup>lt;sup>25</sup> Sufian Eltayeb Mohamed, Moise G. Sidiropoulos," Another Look at the Determinants of Foreign Direct Investment in Mena Countries: An Empirical Investigation", in *Journal of Economic Development*, 2021, 35:2, pp. 75-90.

<sup>&</sup>lt;sup>26</sup> Mihaela Peres, Waqar Ameer, Helian Xu," The impact of institutional quality on foreign direct investment inflows: evidence for developed and developing countries", in *Economic Research-Ekonomska Istrazivanja*, 2018, 31:1, pp. 626-644.

<sup>&</sup>lt;sup>27</sup> Ogunjimi Joshua and Amune Benjamin, "Impact of Infrastructure on Foreign Direct Investment in Nigeria: An Autoregressive Distributed Lag (ARDL) Approach" in *Munich Personal RePEc Archive SSRN Electronic Journal*, 2019, 75996, pp. 1-17.

<sup>&</sup>lt;sup>28</sup> Ibidem, p. 1

<sup>&</sup>lt;sup>29</sup> Miao, Miao, Qiaoqi Lang, Dinkneh Gebre Borojo, Jiang Yushi, and Xiaoyun Zhang, "The Impacts of Chinese FDI and China-Africa Trade on Economic Growth of African Countries: The Role of Institutional Quality", *Economies*, 8.3, 2020.

states held in April 1955. Since then, China's commitment to Africa has been growing in terms of trade, aid, and investment, so that by 2019 the People's Republic of China (PRC) had established formal diplomatic relations and has direct investments in nearly all African countries. Investment has played a key role in the growth of Africa's fastest-growing economies but up until recent years, China's contribution was not so relevant because Chinese investment-share in total FDI was quite low in several African countries.<sup>30</sup> In 2018, Chinese President Xi Jinping pledged 60billion USD for development across the boundaries of Africa during the triennial Forum on China-Africa Co-operation, a two-day summit hosting some African leaders. China's influence in Africa at large has seen a significant rise in the past couple of years. China has become the continent's most important economic partner. the partnership extends beyond economic investments to military, information technology and agricultural investment developments. Despite all these, opinions remain divided on the China-Africa relations. The partnership has received a wide range of criticism from the western media and legislators as debt-trap diplomacy.<sup>31</sup> According to Gbadamosi and Oniku, "it is no surprise that China has positioned itself as a country to be reckoned with".<sup>32</sup> The flood of economic activities from foreign investors who are attracted to the presence of a market for their products and services is proof.33 There is also some relationship between China and other countries like those in sub-Saharan Africa that supplied 77% of oil, 13% of metalliferous ore, 3% pear and precious stones, 3% cotton, and 2% wood to the Chinese economy. While on the demand side, the African economy sourced 5% industrial equipment, 7% electrical appliances, 8% telecommunications equipment, 8% transport vehicles, 14% clothing wears, and 16% textiles from the Chinese economy. This positive development about China has been linked

<sup>&</sup>lt;sup>30</sup> <sup>31</sup> Sena Wildan Utama," From Brussels to Bogor: Contacts, Networks and the History of the Bandung Conference 1955", in *Journal of Indonesian Social Sciences and Humanities*, 2016, 6.1, pp. 1-14.

<sup>&</sup>lt;sup>31</sup> Ibidem, p. 7.

<sup>&</sup>lt;sup>32</sup> Ayantunji Gbadamosi, Ayodele, C. Oniku," The Strategic Implications of China's Economic Pacts with Sub-Saharan African Countries: The Case of Nigeria", in *Conference of the International Journal of Arts and Sciences*, 2009, 1:18, pp. 115 - 130.

<sup>&</sup>lt;sup>33</sup> Gloria Claudio-Quiroga, Luis A. Gil-Alana, Andoni Maiza-Larrarte, op.cit.

severally to its open-door policy which took effect from the 1980s and eventually to join the world trade organization in 2001. Between 2000 and 2018, the Chinese Global Power (CGP) database exhibits that Chinese companies and policy banks have invested in 777 power plants overseas at 186.5GW of generation capacity across 83 countries in the world. Of this, 106.2GW is already online, with the remainder planned into the future. Forty per cent of China's overseas power plant capacity is in the form of coal-fired power plants; 27% is hydroelectric and other renewable energy only accounted for 11% of the total capacity. The CGP shows that China's fossil fuel power plants are currently leading to approximately 314 million tons (Mt) of CO<sup>2</sup> emissions per year, which is about 3.5% of the annual CO<sup>2</sup> emission from the global power sector outside of China.<sup>34</sup>

Figure 1. Scope of China's Global Power database.



#### 2.2 Relationship between China and Nigeria

Apart from the influx of investments into China, it also has several other trade deals with other countries including Sub-Saharan African countries such as Nigeria. Perhaps due to the overshadowing effects of the existence of this large consumer market which propels various countries to troop to the Chinese economy, the diplomatic relations between the People's Republic of China and the Federal Republic of Nigeria historically dates over five decades when the bilateral relations between the two countries have been smoothly and consistently developed. This relationship resulted in many more bilateral agreements, in economic, trade, culture, and educational ties. Reports have it that, about 20,000

<sup>&</sup>lt;sup>34</sup> Helen Xinyue Ma, "Understanding China's Global Power", in *Boston University Global Development Policy Center Policy brief*, 2020, 342.2019, pp 335-342.

Chinese live in the major cities of Nigeria.35,36 China has extended its dominance far beyond Asia and leveraged international institutions and agreements to exert its presence globally. China's influence has continued to grow in leaps and bound on the African continent and particularly Nigeria.<sup>37</sup> The poorly managed Nigerian economy and outdated infrastructure have culminated in both countries' sustained alliance to drive growth.<sup>38</sup> However, critics of the Chinese so-called 'win-win' foreign policy have continued to point out that the alliance seem to favour one side, with fragmented evidence suggesting that Nigeria's relations with China, rather than create other social-economic and political problems for Nigeria, thereby stalling the growth. Some levels of decadence in some industries have been ascribed to the growing dependence on China by Nigeria. Thus, there is a certain level of academic legitimacy in asking a question on whether China's relations with Nigeria is about realising a great opportunity or it is simply of opportunistic relations. This discussion is bound by both international trade relations and neo-colonialism frameworks.<sup>39</sup>, <sup>40</sup> The agitation in the oil-rich area of Nigeria meant that sharp growth in the domestic gross product (GDP) was driven by the nonoil sector of the economy. And even with a 3.4% rating in 2000, there was a significant increase that averaged 8.9% in the mid-2000s. But by 2009, the growth performance had fallen to 4.5% because of the global financial crisis. The anxiety the situation created economically was what was needed for the regulatory bodies to promulgate large scale regulatory oversight policies. It was clear that a sector-specific policy was needed to complement

<sup>&</sup>lt;sup>35</sup> Ayantunji Gbadamosi, Ayodele, C. Oniku," The Strategic Implications of China's Economic Pacts with Sub-Saharan African Countries: The Case of Nigeria", in *Conference of the International Journal of Arts and Sciences*, 2009, 1:18, pp. 115-130.

<sup>&</sup>lt;sup>36</sup> Ni Xiaoze," Do the host country's party system and electoral rules influence Chinese FDI? Evidence from Sub-Saharan African countries in the new", in *Online Summer Research Programme*, Pembroke College, Cambridge University, 2021, pp. 1-31.

<sup>&</sup>lt;sup>37</sup> Derrick Anquanah Cudjoe, He Yumei and Hanhui Hu," The impact of China's trade, aid and FDI on African economies", in *International Journal of Emerging Markets*, 2020, pp. 1-22.

<sup>&</sup>lt;sup>38</sup> Matthias Busse, Ceren Erdogan, Henning Mühlen," China's Impact on Africa – The Role of Trade, FDI and Aid", in *KYKLOS*, 2016, 69:2, pp. 228–262.

<sup>&</sup>lt;sup>39</sup> Ibidem, p. 6

<sup>&</sup>lt;sup>40</sup> *Ibidem*, p. 2

fiscal and monetary policy measures to preserve and protect the labour market.  $^{\rm 41}$ 

According to Olusanya, "the impact of Foreign Direct Investment inflow and economic growth in a pre and post deregulated Nigerian economy, between 1970 - 2010 while de-aggregating the economy into three periods; 1.) 1970 to 1986, 2.) 1986 to 2010 and 3.) 1970 to 2010, revealed that there is an interconnecting relationship in the pre-deregulation era that is (1970-1986) from economic growth (GDP) to foreign direct investment inflow (FDI) which means GDP causes FDI; but there is no causality relationship in the post-deregulation era that is (1986-2010) between economic growth (GDP)"42 and foreign direct investment inflow (FDI) which means GDP did not cause FDI.43 However, between 1970 to 2010 it shows that there is an interconnecting relationship between economic growth (GDP) and foreign direct investment inflow (FDI) that is economic growth drive foreign direct investment inflow into the country and vice versa. In 1999, democracy returned with its corresponding economic growth to the entity called Nigeria. Economic reform programs laid out and monitored by the international monetary fund (IMF) and world bank which were implemented brought about the transformation within the macroeconomic framework. Regardless of this transformation on the macroeconomic level of the economy, the microeconomic level has been left wanting. Particularly the manufacturing sector of the economy has been affected adversely, to say the least.44

# 3. Theoretical framework

Classical and neo-classical economics theory projected convergence between poor developing countries and the developed countries in the long

<sup>&</sup>lt;sup>41</sup> *Ibidem*, p. 41

<sup>&</sup>lt;sup>42</sup> Olusanya Samuel Olumuyiwa," Impact of Foreign Direct Investment Inflow on Economic Growth in a Pre and Post Deregulated Nigeria Economy: A Granger Causality Test", in *European Scientific Journal*, 2013, 9.25, pp. 1857–7881.

<sup>&</sup>lt;sup>43</sup> Chinyere Udude Celina, Christian Chibuike Nkwagu, Ogbonna Micheal Agbafor, Igwe Lawrence Oruta," Foreign Direct Investment and Poverty Reduction in Nigeria", in *International Journal of Humanities and Social Science Invention*, 2017, 10.5, pp. 28-35.

<sup>&</sup>lt;sup>44</sup> Joseph Nnanna," Is China's investment in Africa good for the Nigerian economy?", in *Journal of Chinese Economic and Foreign Trade Studies*, 2015, 8:1, pp. 40-48.

run largely due to the transfer of technology and capital from the developed countries to the developing countries. One of the ways capital and technology are transferred from developed countries to developing countries is through the inflow of foreign direct investment.<sup>45</sup> Most findings on foreign direct investment and growth are cross country pieces of evidence, while the role of foreign direct investment in economic growth can be country specific. Further, only a few of the country-specific studies took conscious note of the endogenous nature of the relationship between foreign direct investment and growth in their analysis, thereby raising some questions on the robustness of their findings. The relationship between foreign direct investment and growth is conditional on the macroeconomic dispensation the country in question is passing through.<sup>46</sup> Therefore, it is important to note that according to Olusanya, "the degree to which foreign direct investment impacts growth, hangs on the economic and social condition or, the quality of the new environment of the recipient country".47 The connection between Foreign Direction Investment (FDI) and the state of the economy have been extensively discussed both from the empirical and theoretical point of view in other economic works of literature with mixed assumptions. Macroeconomic theory on FDI shows that a functional relationship exists between FDI and the state of the economy. There are proofs in other works of literature that the inflows of FDI have a substantial influence on macroeconomic variables.<sup>48</sup> Previous studies have also focused on examining the impact of FDI in driving the aggregate economy, with very few studies examining the impact of pull factors in attracting FDI inflows. Besides, most of the studies that inquire into the impact of FDI inflows on home economies focus on Asia with very few on Africa, Nigeria inclusive. There are vague theoretical forecasts

<sup>&</sup>lt;sup>45</sup> Orogwu C. David, Fakayode, B. Segun, Mohammed H. Itopa, and Ahmed Abdulbasi," Sectoral analysis of foreign direct investment and growth in Nigeria", in *Applied Journal of Economics, Management, and Social Sciences*, 2021, 2:1, pp. 33–41.

<sup>&</sup>lt;sup>46</sup> *Ibidem*, p. 344.

<sup>&</sup>lt;sup>47</sup> Olumuyiwa Samuel Olusanya," Impact of Foreign Direct Investment Inflow on Economic Growth in a Pre and Post Deregulated Nigeria Economy: A Granger Causality Test (1970-2010)", in *European Scientific Journal*, 2013, 9.25, pp. 335-356.

<sup>&</sup>lt;sup>48</sup> Babajide Abiola Ayoopo, Lawal Adedoyin I," Macroeconomic Behaviour and FDI Inflows in Nigeria: An Application of The Ardl Model", in *British Journal of Economics, Finance and Management Sciences*, 2016, 11:1, pp. 84-107.

about the impacts of FDI on economic growth. Foreign investment helps transfer technology and business know-how from rich countries to poor countries, which may help poor countries improve their productivity and hence benefit economic growth. Using a model with adverse selection and costly state verification, argue that FDI may affect the current allocation of investment capital and slow down economic growth.<sup>49</sup> Under certain policy conditions however, other models suggest that FDI will lead to economic growth.<sup>50</sup> The pivotal role of capital and labour as a driver of growth has generated many documented debates in the macroeconomic literature through the neoclassical Solow's growth model.<sup>51</sup> The fact is that the existence of FDI induced growth hypothesis has witnessed a glut of documentation with no agreement in the existing body of knowledge. There are diverse opinions of positive and negative impacts of Foreign Direct Investment (FDI) on the global economy, that are acceptable theories among researchers, policymakers, and corporate entities.<sup>52</sup>

Udeh and Odo observed that the "impact of foreign direct investment on the economic growth in Nigeria among others showed that there is a significant strong positive relationship between foreign direct investment and gross domestic product between 1981-2013 in Nigeria. This implies that an increase in foreign direct investment in Nigeria, if well managed could be used to enhance the gross domestic product. Their study recommended among others that the Nigerian government should create a conducive business environment that will attract more foreign direct investment into the country".<sup>53</sup> Also, Orogwu et al, further emphasise the fact that "foreign direct investment not only exert a direct positive effect on the aggregate growth rate of Nigeria economy but also exert a positive

<sup>49</sup> Ibidem, p. 259.

<sup>&</sup>lt;sup>50</sup> Zhang Jian, Alon Ilan, Yanan Chen," Does Chinese investment affect Sub-Saharan African growth?", in *International Journal of Emerging Markets*, 2014, 9:2, pp. 257-275.

<sup>&</sup>lt;sup>51</sup> <sup>51</sup> Ayres U. Robert, Warr Benjamin, "The Economic Growth Engine: How Energy and Work Drive Material Prosperity", 2009, pp. 1-393.

<sup>&</sup>lt;sup>52</sup> Babajide Abiola Ayoopo, Lawal Adedoyin I.,"Macroeconomic Behaviour and FDI Inflows in Nigeria: An Application of the ARDL MODEL", in *British Journal of Economics, Finance and Management Sciences*, 2016, 11:1, pp. 84-107.

<sup>&</sup>lt;sup>53</sup> Sergius Nwannebuike Udeh, John Onyemaechi Odo," Impact of Foreign Direct Investment on the Economic Growth of Nigeria", in *Journal of Global Accounting*, 2017, 5.2, pp.10-17.

indirect effect through labour". The benefits and the impact associated with the inflow of FDI are inexhaustible; the benefits include the affordability of developing countries to have access to modern technology and key administrative ingenuity that can increase domestic output, creating more jobs, lowering the cost of production, and raising worker's wages and standard of living among others.<sup>54</sup> Direct Foreign Investment can be illustrated in numerous ways. It may involve a parent company injecting equity capital by purchasing shares in foreign affiliates; it could also take the of reinvesting the affiliates earning or it may entail short-or-foreign investment as a share of Gross Domestic Product has grown rapidly, becoming the large source of capital moving from developed nations to developing nations.<sup>55</sup> The theories of capital market and portfolio investments were used to describe the initiation of FDI initially. Direct investment originally was an international capital movement only. FDI was regarded as a subset of portfolio investment before 1950. It can therefore be asserted that the most important reason for capital flows lay in the differences in interest rates accordingly. This approach stated that when there were no uncertainties or risks, capital tended to flow to regions where it gained the highest return. But this context failed to incorporate the fundamental difference between the portfolio and direct investment. Direct investment involves control.<sup>56</sup> Hence the theoretical shortcomings of the interest rate theory are that it does not explain control. Therefore, if interest rates are higher abroad, an investor will consider lending money abroad, but there is no logical necessity for the investor to control the enterprise to which will lend money.57

<sup>&</sup>lt;sup>54</sup> Ibidem

<sup>&</sup>lt;sup>55</sup> Oyatoye, E. O., Arogundade, K. K., Adebisi, S. O, Oluwakayode, E. F.," Foreign Direct Investment, Export and Economic Growth in Nigeria", in *European Journal of Humanities and Social Sciences*, 2011, 2:1, pp. 66-86.

<sup>&</sup>lt;sup>56</sup> <sup>53</sup>Nayak Dinkar, Rahul N. Choudhury," A selective review of foreign direct investment theories", in *Asia-Pacific Research and Training Network on Trade (ARTNeT)*, 2014, 143, pp. 1-35.

<sup>&</sup>lt;sup>57</sup> Ibidem, p. 13.

#### 3.1 The Keynesian and Acceleration Theories of investment.

The Keynesian theory of investment referred to the term investment as a real investment that adds to capital equipment that consequently leads to an increase in income and production by increasing the production and purchases of capital goods.<sup>58</sup> There are types of investment to be noted in this literature, 1. Induced investment is profit or income motivated. It shows that as factors such as prices, wages, interest change, there is a corresponding effect on the profit hence influencing the induced investment; 2. Autonomous investment is independent of the level of income and is thereby income elastic. It is influenced by exogenous factors such as innovations, population growth and labour force growth, and is thereby not influenced by changes in demand but by the demand.<sup>59</sup>,<sup>60</sup> The accelerated theories of investment, on the other hand, based their principle on the reality that the demand for capital goods is derived from the demand for consumer goods which the capital goods help to produce. Furthermore, the accelerated theories of investment described the process by which an increase or decrease in the demand for consumption goods leads to an increase or decrease in investment in capital goods. In this case, the accelerator coefficient will be the ratio between induced investment and the initial change in consumption expenditure.<sup>61</sup> Figuratively,  $\beta = \Delta I / \Delta C$  or  $\Delta I=\beta\Delta C$ , where  $\beta$  is the accelerator coefficient,  $\Delta I$  is the net change in investment and  $\Delta C$  is the net change in consumption expenditure.<sup>62,63,64</sup>

<sup>&</sup>lt;sup>58</sup> Olusanya Samuel Olumuyiwa, "Impact of Foreign Direct Investment Inflow on Economic Growth in a Pre and Post Deregulated Nigeria Economy: A Granger Causality Test", in *European Scientific Journal*, 2013, 9:25, pp. 335-336.

<sup>&</sup>lt;sup>59</sup> *Ibidem*, p. 345.

<sup>60</sup> Ibidem, p. 349.

<sup>61</sup> Ibidem, p. 345.

<sup>&</sup>lt;sup>62</sup> Lawal Muhammad, Victor Ushahemba Ijirshar," Empirical Analysis of the Relationship between Foreign Direct Investment and Economic Growth in Developing Countries-Evidence from Nigeria", in *International Journal of Business Administration and Management Research*, 2015, 1:1, pp. 15-25.

<sup>63</sup> Ibidem, p. 345.

<sup>64</sup> Ibidem, p. 350.

## 3.2 Harrod-Domar

According to Boianovsky" the conception that physical capital build-up is the main cause of economic growth, have frequently been attributed to Harrod's and Domar's proposal that the amount of growth is the product of the saving rate and the output-capital ratio".<sup>65</sup> Nevertheless, neither Harrod nor Domar fits in this idea referred to as capital fundamentalism. In the 1950s, development planners adapted the growth formula to their agenda. During this period, a lot of development economists have been conscious that the growth models addressed economic instability issues and not long-run growth. Eventually, the application of the concept of the natural growth rate to economic development was made by Harrod concept asserting that the growth of emerging markets is defined by their capability to execute technological development. Likewise, Domar noted that the incremental capital-output ratio was more likely a passive result of the interaction between the tendency to save and technological progress, not a causal factor.<sup>66</sup>

Hochstein stated that "Harrod-Domar model of economic growth is the first to use the Keynesian framework to examine the conditions necessary for continuous full employment equilibrium income growth. This is because it focuses on the full employment of capital, with labour assumed to be in infinite supply".<sup>67</sup> Furthermore, the model argues that should there be any deviation in investment from the critical growth rate, full employment is doomed to degenerate into hyperinflation or depression which is referred to as the knife-edge growth rate. The Harrod-Domar growth model designates a key responsibility to invest in the development of economic growth while placing prominence on the dual elements of investment. The theory demonstrated that investment generates income which can also be referred to as the demand effect and then also enhances the productive capacity of the economy through increasing its capital stock which is also referred to as the supply effect of investment.<sup>68</sup> Tarasov and

 <sup>&</sup>lt;sup>65</sup> Mauro Boianovsky," Beyond capital fundamentalism: Harrod, Domar and the history of development economics", in *Cambridge Journal of Economics*, 2018, 42, pp. 477–504
 <sup>66</sup> *Ibidem*, p. 477

<sup>&</sup>lt;sup>67</sup> Alan Hochstein, "The Harrod-Domar Model in a Keynesian Framework", in *International Advances in Economic Research*, 2017, 23, pp. 349–350.

<sup>&</sup>lt;sup>68</sup> *Ibidem*, p. 345.

Tarasova (2019) noted that "the model illustrates the dynamics of national income Y<sub>(t)</sub>, that is determined by the sum of non-productive consumption C<sub>(t)</sub>, the induced investment I<sub>(t)</sub> and the autonomous investment A<sub>(t)</sub> over a period. The balanced equation of the model is written as: 1.)  $Y_{(t)} = C_{(t)} + I_{(t)}$ +A<sub>(t)</sub>; in the standard Harrod–Domar model of growth without memory, the following assumptions are used.<sup>69</sup> (a) In the Harrod–Domar model, the autonomous investment A(t) is deemed as an exogenous variable, which is independent of national income Y(t). (b) In the model without memory, the consumption C(t) is a linear function of national income that is described by the linear multiplier equation: 2.)  $C_{(t)} = c Y_{(t)}$ , where c is the marginal propensity to consume (0 < c < 1).<sup>70</sup>, and (c) In the standard Harrod–Domar model of the growth without memory, it is assumed that induced investment I(t) is determined by the rate of the national income.<sup>71</sup> This assumption is described by the linear accelerator equation: 3.)  $I_{(t)} = v Y_{(1)(t)}$ where v is the positive constant, which is called the investment coefficient indicating the power of accelerator or the capital intensity of the national income, and Y(1)(t) = dY(t)/it is the first-order derivative of the function Y(t). Equation (3) means that the induced investment is a constant proportion of the current rate of change of income. Substitution of Equations (2) and (3) into (1) gives; 4.)  $Y_{(t)} = c Y_{(t)} + v Y_{(1)(t)} + A_{(t)}$ . This equation can be written as  $v Y_{(1)(t)} = sY(t) - A_{(t)}$ ; where s = 1 - c is the marginal propensity to save  $(0 < s < 1)^{".72}$  The economic dynamics, which is represented by Equation (5), can be qualitatively described in the following form. If independent investments A(t) grow, for example, due to the sudden appearance of large inventions, the multiplier gives rise to a corresponding increase in A(t)/(1 - c) output where c is the marginal propensity to consume (0 < c < 1). The expansion of output drives the accelerator and is accompanied by the appearance of other (induced) investments. In turn, these additional investments, increase the products

<sup>&</sup>lt;sup>69</sup> Vasily E. Tarasov, Valentina V. Tarasova," Harrod-Domar growth model with memory and distributed lag", in *Axioms*, 2019, 8.9, pp. 1-15.

<sup>&</sup>lt;sup>70</sup> *Ibidem,* p. 2.

<sup>&</sup>lt;sup>71</sup> Ibidem.

<sup>&</sup>lt;sup>72</sup> Ibidem.

due to the economic multiplier, and a new cycle begins. In general, the result is a progressive increase in national income.<sup>73</sup>

## 3.3 The New Growth Theories

In the 1980s, as a response to the criticism of the neoclassical growth model, the new growth theory was developed. The endogenous theory of the growth model proposes that policies can have a long-run impact on the growth rate of an economy. This means that policies that embrace openness, competition, change and innovation, promotes growth and vice versa.<sup>74</sup> The new growth model is an endogenous growth theory that works with a simple model: 1.) Y=AK, where Y is national income, K is the capital stock and A is the constant assumption of constant returns to capital.<sup>75</sup> It should also be noted that the constant returns to capital assumption stem from additional physical capital to other forms of reproducible capital such as human capital. And if the idea of a global absence of diminishing returns may seem unrealistic, but the idea becomes more credible if K is considered in a broad sense to include human capital, 2.) dY/Y = A(dK/Y) - A(I/Y).

# 4. Methodology

Kinnear and Taylor on "Research Methodology" defined it as the basic plan which guides the data collection and analysis phases of the research work. It is the framework, which specifies the types of information to be collected, the sources of data and the date of collection/procedure.<sup>76</sup> For this study, the working standards deal extensively with the methods and designs used in this paper. It includes the following: research design, sample and sampling technics, instrumentation, validity, reliability, data collection procedure and method of data analysis. The data employed is secondary data. The data was sourced from the World Bank databank base

<sup>&</sup>lt;sup>73</sup> Ibidem.

<sup>74</sup> Olusanya, op. cit., p. 346

<sup>&</sup>lt;sup>75</sup> Khaled Hussein, A. P. Thirlwall," The AK Model of "New" Growth Theory Is the Harrod-Domar Growth Equation: Investment and Growth Revisited", in *Journal of Post Keynesian Economics*, 2000, 22:3. pp. 427-433.

<sup>&</sup>lt;sup>76</sup> Charles Blankson, Stavros P. Kalafatis, "The Development and Validation of a Scale Measuring Consumer/Customer-Derived Generic Typology of Positioning Strategies", in *Journal of Marketing Management* 2004, 20:1-2, pp. 5-43.

and the Central Bank of Nigeria databank base. The following questions are formulated to guide this investigation; 1. What is the foreign direct investment? 2. What is the need for foreign direct investment, 3. Does foreign direct investment positively influence economic growth? 4. Does economic growth influence foreign direct investment? The research work is tested using regression analysis; the specifically ordinary least square approach is used in analysing the data used for this study. The model assumes that the variable has a linear relationship. The model used are estimated using Nigeria data on Foreign Direct Investment net inflow (FDI) and some macroeconomic indicators like the Gross Domestic Product (GDP) and for the period 1990 – 2020.

The method of estimation is based on the use of multiple regression techniques using the regress and regressor terminology. The ordinary least square regression techniques explain the relationship between an explained variable (regressor) and two or more explanatory variables (regressed). The relationship between Y and variables a<sub>1</sub>, a<sub>2</sub>, a<sub>3</sub>, a<sub>4</sub>.....a<sub>n</sub> is in econometric form. It can be expressed mathematically as

 $Y = f(a_1, a_2, a_3, a_4, \dots, a_n)$ 

If we want to change it to linear form, it then becomes

 $Y = \beta_0 + \beta_1 a_1 + \beta_2 a_2 + \beta_3 a_3 + \dots + \beta_n a_n$ 

For us to explain and show the factors that can influence real output per head "a," denotes the value of factor that can determine or affect Y. The coefficient  $\beta_0$  represents the intercept of the "function while co-efficient  $\beta_1$ ,  $\beta_2$ ,  $\beta_{3}$ ,  $\beta_{4}$ ... $\beta_{n}$  denotes the marginal effect of "a" on Y. Economic theory does not allow for random fluctuations or random elements which might affect the relationship between the independent and independent variables. But in the econometric model, the fluctuation in the random element is taken care of. A random variable "U" known as stochastic, error term is introduced into the model. This is because other important variables can be left out or not included in the model. With this modification and the introduction of stochastic error term or disturbance term (U), we have a functional form model in this form  $Y = \beta_0 + \beta_{1a1} + \beta_{2a2} + \beta_{3a3} + \dots + \beta_n a_n + U$ . The least-square techniques will be used to estimate the structural parameters  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4...,\beta_n$ . This is because the least square technique is the best linear unbiased estimate, and the result will lie unbiased. An estimator is preferred to others because it has the least-square property. This least

square estimator has been chosen because it is an estimator that generates a set of parameter estimates with the smallest error of the regression. There are some assumptions of ordinary least square which must hold or else the above assertion will not hold. Therefore, the following must be assumed for "U" for the estimation techniques to hold. The assumption of OLS is based on the distribution of stochastic error terms.

i) Error term (U) is random and normally distributed

ii) The error term has zero i.e., E(0) = 0

iii) The error term has a constant variable i.e., E (U)<sup>2</sup> =  $\sigma^2$ 

Assumption i to iii above can be combined into one mathematical formula: U N (q. $\sigma^2$ ).

iv) The error term (U) in one period is uncorrelated with the error in the other period, that is, COV (Ui, Uj) = 0 for  $I \neq j$ . The implication of assumption four shows that our Y depends only on the aggregate of  $\beta$  and not on any other variables.

v) The explanatory variable independent variable assumes fixed values so that they are uncorrelated with the error term.

Mathematically COV. (a, U) = 0. In this paper, we shall use monetary and fiscal variables. Under the monetary policy variables, the following shall be employed, investment, capital market volume of trade. While both Government expenditure and taxation policy shall be employed under the fiscal policy. The econometric analysis of the estimate will be carried out using a statistical test for significance. These statistical tests include t-ratio, co-efficient of multiple determination; F Statistics and Durbin Watson statistic (DW). The R<sup>2</sup> measure is to examine the explanatory power of the independent variable. It will determine how effective the independent variables are in explaining the variables in the dependent variables. The F- statistic will also be used to determine the significance of the parameter of the estimates or simply, it will be used to check for the precision of the regression. Durbin-Watson statistics will also be used to test whether there is a presence of autocorrelation or not.

# 4.1 Hypotheses, Model Specification and Econometric Model Specification

Considering the statement of the problem and the purse of the study, the following hypotheses were formulated to guide the study:

- A. H<sub>0</sub>: That there is no significant relationship between Foreign Direct Investment and the gross domestic product.
   H<sub>1</sub>: That there is a significant relationship between Foreign Direct Investment and the economic and political framework.
- B. **H**<sub>0</sub>: That Foreign Direct Investment has a positive influence on the annual gross domestic product.

**H**<sub>1</sub>: That increase in Foreign Direct Investment has a negative influence on the annual gross domestic product.

FDI = f(GDP), where FDI = FDI Net inflow to Nigeria f(GDP) = Nigeria's Total GDP under the hypothesis that:

**H**<sub>0</sub>: =  $\beta_0 = \beta_1 = \beta_2 = 0$  and **H**<sub>A</sub>:  $\neq \beta_0 \neq \beta_1 \neq \beta_2 \neq 0$ .

From the above, the null hypothesis  $(H_o)$  states that the values of the estimated parameters are not significantly different from zero, while the alternative hypothesis  $(H_A)$  states that the values of the estimated parameters are significantly not equal to Zero, which is the theoretical expectation. This study will employ the use of multi-regression analysis to examine that:

$$FDI = \beta_0 + \beta_1 GDP + U$$

This model will be regressed following a stepwise regression with the expectation that the  $H_A$  is expected to be positive since the higher the gross domestic product the more economic growth increases; also, that  $\beta_2$  is also expected to be positive since it has a direct positive relationship with FDI.

#### 4.2 Empirical Result and Interpretation of the Regression Results.

In the above, the models to be used for macro-economic policy and economic development were stated, discussed in detail, and analysed in detail. In presenting the estimated equations, the figures in parenthesis represent Model 1: FDI =  $\beta_0 + \beta_1$  GDP + U and Model 2: GDP =  $\beta_0 + \beta_1$  FDI + U. In model 1, the result showed that there is a significant relationship between foreign direct investment inflow and annual gross domestic product. The value of R, the coefficient of correlation is 0.721 mean that there is a strong relationship between FDI and GDP. The value of R<sup>2</sup>, the coefficient of determinants (0.519) shows that 51.9% of the variables that influences the FDI inflow rate is caused by total annual GDP. On the test

hypothesis, the t-calculated at 0.296 level of significance is -1.065 while the t-tabulated is 5.400 at 0.001 level of significance shows that the t-tabulated is greater than the t-calculated. The Durbin Watson test of autocorrelation while is 0.464 shows that there is no autocorrelation in the model. The Fstatistic is 29.161 at a 0.001 level of significance mean that H<sub>0</sub> is rejected while H1 is accepted; showing that there is a significant relationship between Foreign Direct investment inflow and annual gross domestic product. In model 2, the result showed that there is a significant relationship between foreign direct investment inflow and annual gross domestic product. The value of R, the coefficient of correlation is 0.721 mean that there is a strong relationship between GDP and FDI. The value of R<sup>2</sup>, the coefficient of determinants (0.519) shows that 51.9% of the variables that influence GDP is caused by total annual FDI inflow. The Durbin Watson test of autocorrelation while is 0.253 shows that there is no autocorrelation in the model. The F-statistic is 29.161 at a 0.001 level of significance mean that H<sub>0</sub> is rejected while H<sub>1</sub> is accepted showing that there is a significant relationship between annual gross domestic product and Foreign Direct investment inflow.

Models	R	R <sup>2</sup>	F	DW	Р	t	Hypothesis
1	0.721	0.519	29.161	0.464	< 0.001	-1.065	Accepted
2	0.721	0.519	29.161	0.253	< 0.001	6.049	Accepted

Table 1 Models

# 5. Summary, Conclusion and Recommendations

The outcome of the investigation was consistent in showing a remarkably high, positive, and significant relationship between foreign direct investment and gross domestic product, capital expenditure and government revenue. The implication of this is that FDI could be channelled for the all-around growth of the country. Based on this investigation, therefore, the following suggestion is proffered: 1.) the federal government of Nigeria should do everything possible to create a conducive business environment that will attract more FDI into the country, 2. the) government should make deliberate efforts to prevent and manage domestic violence and conflicts in a way that will repel foreign investors or compel them to repatriate their earnings to their host countries. 3.) the struggle against corruption should not only be sustained but

extended to all sectors of the economy to make the impact of FDI on government revenue and capital expenditure more meaningful. Therefore, these subjects will be suggested for further review in the light of some constraints encountered during this investigation: 1. similar research that will make use of more indices of economic growth within the economic framework; 2. Comparative research on the topic will include Nigeria and other African countries that are comparable and the history.

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