

Foreign Capital Inflow And Industrial Sector Growth In Nigeria 1985-2019

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Abstract

This study determined the impact of foreign capital inflow on industrial sector growth in Nigerian. The dependent variable is industrial sector contribution to the gross domestic product (ISGDP) while the independent variables were: foreign direct investment (FDI), foreign portfolio investment (FPI), foreign loan (FL), foreign technology (FTI), and trade openness (TOP). The study sourced data from the Central Bank of Nigeria Statistical Bulletin for a period of 1985-2019. The study adopted the Autoregressive distributed lag (ARDL) method in the estimation. The findings show that: foreign direct investment has positive and significant impact on industrial sector growth; foreign portfolio investment has negative impact on industrial sector growth; foreign loan has negative impact on industrial sector growth; foreign technology import has positive but insignificant impact on industrial sector growth in Nigeria; trade openness has positive but insignificant impact on industrial sector growth in Nigeria; and Exchange rate has negative and significant impact on industrial sector growth in Nigeria. Following the findings, the study conclude that foreign capital inflow has mixed impact on industrial sector growth in Nigeria. Based on the findings, the study recommends: that Government trade policies should target FDI growth and channel it towards industrial initiatives that will stimulate the sectoral output; government should continuously ensure the ease of doing business to encourage foreign investors in the industrial sector; the federal government should review its economic policy direction and encourage private sector participation and market based economic reforms; there is need for a review of trade policies that put excruciating pains on imports and export activities, so that there is no barrier to trade in industrial items. The recommendations are policies that will encourage capital inflows.

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I. Introduction

The pursuit of industrial growth by national economies especially the yet-to industrialize African economies, is hinged on the widely accepted notion from empirical studies that; there are huge gains by the aggregate economy derivable from a developed industrial sector. The economically strong nations of the world especially the 'big five' United States, China, Japan, Germany, United Kingdom, India (IMF 2018); had passed through phases and periods of 'industrial-push' in search of growth of their economies. The fruits of such big-push are what keeps them and still sustain them at the Zenith of global economic power play. The growth of the industrial sector is broadly determined by the regular flow of investments which guarantees steady industrial production that will lead to employment generation, technological advancement, and human capital development. More evidently, industrial growth is driven by global economic interactions which facilitate the movement of capital over and across national boundaries, perhaps because foreign capital inflows have proved a lead in industrialization policies of the developing economies. United Nations Industrial Organization (UNIDO 2017), Belhadji and Beji (2014), Keyun (2012), Steve and Renard (2015) and Kalim (2014) have emphasized that foreign capital act as a trigger for industrialization. Capital flows whether it is economic or financial capital

influence industrial growth jointly and in isolation of each other. Economic capital relates to goods which are used for further production while financial capital is a long-term financial stock sold in the capital markets.

The classical economists hold strongly that the movement of capital into low income economies provides the financial and technical resources needed to close the evident savings – investment gap in those countries. This idea forms the most held economic thought of many developing countries, hence they churn out trade policies and strategies that keep sizeable inflow of foreign capital steady, mention of this economic thought of developing countries is made by Yang-Yung (2013). In the mould of other developing countries, Nigeria has implemented relevant policies to encourage foreign capital inflow into the country beginning with effort made in the mid-1950s and which have undergone stages of revision and improvement to date. Foreign capital inflow into Nigeria could be traced to the colonial era with the influx of automobile and manufacturing equipment. World Bank most recent report of this inflow of offshore capital into Nigeria was N7.7 billion (only foreign direct investment and portfolio investment in 2010). Nigeria has constantly ranked high among the largest recipient of foreign capital in Africa, particularly, foreign direct investment (Ernst and Young 2018). Over the last decade, Nigeria made about \$120 billion as proceeds of foreign investments (Udoimem and Udofot 2014). Over time, the government's plan to stimulate the inflow of capital resources was with the expectation to speed up growth and transform the economy following economic prescriptions.

The economic happenstances of the early eighties sparked off the debate hinging on how desirable FCI is and its ability to engineer rapid industrial sector transformational growth. This pits scholars on two sides, while some have advanced notable reasons in support of it, others have doubted the prescription. Critics evidenced the lack of corresponding growth in industrial activities despite sizable FCI inflows to support their position. However, different government administrations have continued to rely on stimulation of foreign capital inflow as a strategy for growth in activities of the entrepreneurs. Foreign capital flow is what majority of African economies rely on in order to boost industrial activities. These capitals include human and material capital. In their observation, Gui-Diby and Renard (2015) avers that for several decades, sizeable quantities and values of raw materials and commodities have been exported by African countries; however, they have generally failed to diversify their international trade and their economy. According to UNECA (2013), the index of diversification shows that the structure of international trade for all African countries is highly concentrated compared with the structure of the world average.

The trans-border flow of both economic and financial capital across international boundaries could have taken a leap from the United States policy of encouraging reconstruction and sufficiency among war-torn nations. This may be based on the economic thought which elevates foreign capital inflow as an indispensable component of economic growth and development based on the empirical evidences of its potential as the core driver of the fast and effective transfer and adoption of best practices from one economy to another. Foreign inflows are mostly adapted to transfers and its transformation into global growth, precisely in making the most of human capital development in low income economies (Beaunan and Lahnet 2013).

Despite foreign capital inflows, the growth experience of developing countries like Nigeria has not been encouraging and they languish in external debt problem and poverty. The need for foreign capital as an important complement for the deficiency in domestic resources in the economic growth process is understood in the light of its potential to catalyze industrial growth and a central element in the process of rapid socioeconomic development. The experience of a small number of fast growing East Asian newly industrialized nations has strengthened the belief that foreign capital is the central element of the process of economic development as it bridges the resource gap of these economies and avoids further buildup of debt while tackling the causes of poverty directly through industrialization (Emeka and Allen 2012). In this context, capital flows is a broad term which includes different kinds of financial transactions such as lending by governments and international organizations, bank lending, short and long term investments in public or private bonds, investment in equities or foreign portfolio investments and foreign direct investment, foreign aids, and workers remittances in productive capacity (Obadan 2004).

As the net inflows of investment accompanied by long-term management share to the tune of about 10 percent or more of voting stock in an enterprise operating in an economy other than that of the investor; foreign direct investment holds some promising returns for such investors. It is made up of reinvested earnings, equity and other long- term capital, and short-term capital in the balance of payments. Orji and Nchege (2016) have provided an insight into how FDI affects manufacturing in most developing countries; they noted that one of the major channels of achieving a rapid economic development is to attract Foreign Direct Investment (FDI) in different sectors of the economy, most especially in the manufacturing sector because of its well-known economic advantages. FDI enables the acquisition of the needed resources to developing countries such as capital, technology, managerial skills, entrepreneurial ability, brands, and access to markets, as they are essential for developing countries to industrialize, develop, and create jobs attacking the poverty situation in their countries. There is no abyss in terms of meaning between refining and manufacturing except for the type of activity subsector they address and national economic classifications.

The contention of whether foreign capital inflows explain industrial sector growth is made more distinctly clear by the conflicting position of scholars who have investigated this subject. Comparative survey of available statistical data on industrial sector GDP and the inflow of capital spring up more questions as to whether inflows actually explain industrial growth in Nigeria. For instance, as seen in CBN (2017) the total value of capital inflows (FCI) in 2010 was ₦4479.88 billion while industrial sector contribution to GDP for the same year was ₦12033.20 billion. Thus, one may wonder whether the industrial sector has developed such dexterity in capacity utilization to have tripled output more than total inflows even though it may not be the case that all inflows have been directed to industrial sector.

Apparently clearer now is the realization that non-industrial countries are lacking in the absorptive capacity to receive foreign capital, though particular forms of foreign capital such as FDI may be useful. Viewed from another angle, foreign capital is in relative low use in successful developing countries, owing more to their low demand for foreign capital than a willingness of developed country creditors to supply it. One reason for low demand may be that their financial system is underdeveloped so that when they have growth opportunities, the extra domestic savings they generate are largely adequate to cover the investment that can profitably be financed.

Statement of the Problem

After more than 58 years of independence, Nigeria is yet to attain industrialization status; it remains a net importer of productive inputs accompanied by nearly 90% of export earnings plus over 70% of government revenues which are heavily derived from crude oil export. Public policy analysts assessed that Nigeria has been made indolent by crude oil. Foreign capital inflow into Nigeria is under the influence of constraints that are making investors gradually to lose confidence in the stock market in the economy. These constraints were a signal to the delisting of Nigeria by JP Morgan from the list of emerging markets bond index in 2015 (Ventures Africa, 2016). On 8th September 2015, the United States-based lender, stated in strong terms to the effect that Nigeria would be phased out of its Emerging Market Government Bond Index (GBI-EM) by the end of October 2015 due to alleged lack of liquidity and transparency in the nation's foreign exchange market. This announcement comes after JP Morgan earlier in 2015, placed Nigeria on a negative index watch on its Government Bond Market Index. This has created a black veil over the investment position of Nigeria as many foreign investors surveyed in 2013 to 144th.

Certain policy measures were adopted by African economies but which however was ineffective in improving the expected modeling relationship that have been achieved as with transnational corporations (TNCs) and the domestic businesses. These measures as pointed out by UNECA (2011) include unfriendly industrial policies such as domestic market exclusivity, extension of exclusive exploration rights, etc. following this, UNCTAD (2017) poses the argument that government has failed woefully in the design and implementation of a sound industrial policy that is inevitable in the pursuit of industrialization; this owes to inadequacy or complete absence of technical and analytical capacities, coupled with poor management in the public sector.

Those countries which possess sizeable endowments of natural resources receive large FDI inflows, this assertion is shared by Gui-Dibby (2015); Stein (1992) has also strongly emphasized that Sub-Saharan Africa are facing industrial crises as a result of the noticeable expansion in the industrial sector, which was brought about by import substitution industries and remarkable ineffective government interventions in productive activities. The implementation of the World Bank's prescriptions channeled through the instrument of the Structural Adjustment Programme (SAP), has contributed to the destruction of the manufacturing strength of most African countries; consequently, manufacturing activities began declining or stopped increasing owing to low income levels, and lack of an entrepreneurial class; the result was de-industrialization at the early stage. UNCTAD (2017) in support of this argument states that, "structural adjustment programme besides leading to the restoration of macroeconomic stability, failed to contribute to structural transformation and diversification.

The foreign loan profile of Nigeria has reached an alarming rate as foreign loans have become a big issue of concern to all stakeholders. Moghalu (2017) describes Nigeria's foreign debt profile as worrisome; this came on the heels of the recent request for \$5.5 billion from China among others. He maintained that more than 60% of revenues earned in Nigeria is channeled into servicing of foreign loans, thus driving the nation into what he called "dangerous territory". Following this background, this study aims to determine the impact of foreign capital inflow (FCI) on the growth of the industrial sector in Nigeria. And specifically answer some questions that will help in achieving the objectives (to what extent does foreign direct investment impact on industrial sector growth in Nigeria? to what extent does foreign portfolio investment impact on industrial sector growth in Nigeria? What is the extent to which foreign loan impacts on industrial sector growth in Nigeria? How does trade openness impact on the industrial sector growth in Nigeria?

Research Hypotheses

As tentative answers to the research questions, the study formulated the following hypotheses in null form:

H01: Foreign Direct Investment has no significant impact on industrial sector growth in Nigeria

H02: Foreign Portfolio Investment does not impact significantly on industrial sector growth in Nigeria

H03: Foreign Loan does not significantly impact on industrial sector growth in Nigeria

H04: Trade Openness has no significant impact on industrial sector growth in Nigeria.

This study on the impact of foreign capital flows and the industrial sector growth in Nigeria will have a multi-faceted significance on various economic units and key players in the industrial sector: domestic and foreign investors, manufacturers, the federal government in particular and the economy in general, as well as academics and the researcher. By relying on the contributions from the outcome of this study, the federal government through the trade and investment ministry will put measures in place to ensure that favourable trade policies are effected, barriers which inhibit inflow of foreign capitals removed, and the ease of doing business continues to improve and give investors the assurance of safety and profitability of their investments. The economy requires stimulants of which foreign capital inflow is a promising and significant option; with this study the government will be able to devise the combination of trade and investment policies that will help to place the economy on the path of sustainable growth.

Domestic and foreign investors will find this study important as the outcome will help to ease their investment decisions especially in the capital markets where fixed income investments are derived. The relationship and pattern of foreign portfolio investments have bearings on the size and profitability of the stock market, hence investment decisions will hinge on this factor. The study is also important to manufacturers and other industrial sector players. A strong, significant and positive impact of foreign capital inflow into the country will imply that production decisions will include all the inflow components of foreign direct investment, foreign portfolio investment, foreign loans, aids and technology.

II. Review Of Related Literature

Conceptual Review

The conceptual review is done in a variable-by-variable sequence to expose scholarly views on the sub components of the topic; other subsections rest on the relational operation of the explanatory variables and the explained variable

Industrialization

The term industrialization is not a new literature especially in economics, politics, development and finance disciplines, it is found in elementary, intermediate and advanced economics literatures since it has found a platform in economic discussions. Industrialization is the process by which an economy is transformed from primarily agricultural to one based on the manufacturing of goods. Perhaps, it could be taken that manufacturing strength (output) and manufacturing capacity utilization (MCU) are the simplest indicators of industrialization in any economy. For Phyllis (1984) industrialization means the replacement of hand tools by machine and power tools, and it also involves vast economic and social changes, e.g., a tendency toward urbanization, a growing body of wage earners, increased technical and advanced education.

Aderinto, Akande, Anyawuocha and San,(2008) defines industrialization as “a deliberate policy by government to create many industries in a country: the process of industrialization involves the production, increasing use of machinery and power tools, as well as the use of improved technology in production; all of which lead to a higher level of output of goods and services. According to Amechi and Azubuike (2004) industrialization in the third world sense is a process of catching up with the technological and economic status of developed countries of the world. This view affirms the earlier notion that industrialized nations are seen as developed. They went further to state that it is regarded as the process of changing the indigenous technological structure for the foreign technological structure to achieve large scale production and an improvement in the living standard of the average person in the country.

In the general sense, industrialization can be defined as the transformation of raw material into consumer goods, or producer goods, with the help of machines and human efforts. They also note that “among the factors that promote growth in any economy includes technological progress”. The technological progress implies improved methods of production of goods and services which increase output, and is possible by the transition from agrarian to industrialized structures or a combination of agriculture and industry such that the share in total output of industry significantly outweigh that of agriculture. A good number of economists share the view that industrial policies are important growth stimulating policies.

According to Udabah (1999) “this is a situation where government would take a direct active role in shaping the structure and composition of industry so as to promote growth. Government industrial policies may be in form of hastening the expansion of high productivity industries or to speed up the movement of resources out of low productivity industries.

Economic growth and development remain key goals desired by underdeveloped and developing nations. It is the process of transformations in national attitudes, structure and system of production and the distribution of output that leads to improvement in standard of living. According to Wilson (2002), industrialization dates back to the 18th and 19th centuries when the industrial revolution took place. This period was marked by the invention of machines and the setting up of factories and other industrial changes of that period. Industrialization is the bed rock of economic development to the extent that the process of economic development usually begin with industrialization and impossible without it. The pursuit of industrialization by developing economies is hinged on the theoretical and empirical evidences that development nations themselves are highly industrialized.

In the mould of other development effort, industrialization flows from national planning and the efforts are usually deliberate as it aims at certain macroeconomic goals beginning with economic growth. Industry is usually grouped into primary and tertiary production. Primary production has to do with the mining and extraction of deposits of mineral resources while tertiary production anchors on manufacturing the conversion and transformation of raw materials or primary products into finished consumable or tertiary products. CBN (2012) classifies industrial output in the Nigerian economy into three namely: crude petroleum and natural gas, solid mineral mining, and manufacturing. Industrialization is synonymous with manufacturing - the process of building up of a nation's capacity to convert raw materials and other input into finished goods either for further production or for final consumption.

Foreign Capital Inflow (FCI)

The channeling or redirecting of financial resources from one country or its citizens to another country or businesses held by the citizens defines foreign capital inflows. In this context, FCI broadens to include different kinds of financial transactions: lending by governments and international financial organizations, short and long term investments in public or private bonds, investment in equities or foreign portfolio investments and foreign direct investment, foreign aids, and workers remittances in productive capacity (Obadan 2004). (Idoko and Taiga, 2018) defines foreign capital inflow is "an investment made by a country, in the form of either establishing business operations or acquiring business assets in another country such as ownership or controlling interest in a foreign company". Foreign capital inflows is also defined as "the movement into a country of capital resources for investment, trade or business production, it has significant role for every national economy, regardless of its level of development" Chigbu, Ubah and Chigbo (2015). Foreign capital flow is the distribution or movement of economic and or financial capital among countries either by governments or her Nationals. This shows that the usefulness of FCI in the developed countries is to support sustainable development; whereas for the developing economies, it serves the aim of increasing capital accumulation and increase in the rate of investments which accelerates economic growth. following the authors above, we define foreign capital inflows as the streaming of monetary assets into a country by citizens of another country for the purpose of investment, trade transactions, other productive activities, including the flow of capital within corporations in the form of investment capital, capital spending on operations and research and development. FCI is a significant factor in the economic growth; and economic development of every nation. For the developed countries it is necessary to support sustainable development while for the developing economies it is used to increase accumulation of and rate of investment to create conditions for accelerated economic growth. Capital inflow can help developing countries in economic development by furnishing them with necessary capital and technology which will be utilized in the process of achieving industrial transformation of local resources. In those countries where domestic saving is grossly inadequate, it also contributes in filling the resource gap.

Capital flows generate overturns in net foreign assets. Therefore, an analysis of the impact of foreign capital inflow on industrial growth in Nigeria will be more fruitful using multivariate approach which will include foreign capital inflow which is disaggregated into foreign portfolio investment (FPI), foreign direct investment (FDI), imports of foreign technology (IFT), foreign loans (FL) and foreign aids (FA). Industrialized nations of the world financed their current account balances primarily with financial flows other than direct investment or reserve flows. Hence, as the industrialized countries are importing capital in the form of other financial flows, they are correspondingly exporting capital as investors in the form of foreign direct investment and foreign portfolio investments. The stream of investment from industrialized countries is nearing \$115 billion; this is directed basically to the less developed countries. Such outflows are an important component of resources needed to finance investments in the LDCs, where the inflows are averaging \$154 billion.

Foreign Direct Investment

Foreign direct investment (FDI) is a component of foreign flows, it is defined as an investment from one country into another (normally by companies rather than governments) that involves establishing operations or acquiring assets including stakes in other businesses (Financial times 2018). In a similar line of thought, the

IMF (2008) posits that FDI is one of the bulks of cross-border transactions whereby a resident of a country acquires absolute or significant with some degree of influence on the management of an enterprise that is resident in another country. It is physical investments made by foreign investors in the domestic country such as investments into building, machinery and equipments. In this process, resident(s) of one country (i.e. home country) acquires ownership for the purpose of controlling production, distribution and other activities of a firm in the another country.(i.e. the host country), and is then regarded as a direct investor. The direct investor can be an individual, public or private enterprises (referred to multinational corporations or MNCs)) or Government. When viewed in a narrow sense as noted by (CIA, 2012), foreign direct investment may just be seen as the building of new facility, and a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. Hence, the sum of equity capital, long-term capital, and short-term capital as shown in the balance of payments represents FDI. The concept is one tree with many branches in terms of definition, thus the use of different vocabularies by scholars does not alter the meaning. For instance, the views shared by Dunning and Pitelis (2008); Orji et al (2016); Idoko and Taiga (2018); Adigun (2015) are not divergent to those above.

Foreign Portfolio Investment

Foreign portfolio investment refers to the short-term investments by foreign entity in the financial markets; these are indirect investments and include investment in tradable securities, such as shares, bonds, debenture of the companies. Foreign Portfolio investors don't exert management control on the enterprise in which they invest, thus clearly distinguishes it from foreign direct investment. The important objective of FPI is the appreciation of the capital investment regardless of any long-term relationship with enterprise. Usually, they are made with short-term speculative gains, and may include foreign institutional investment (investments made by foreign institutions like pension funds, foreign mutual funds etc. in the financial markets), off-shore funds, etc.

Trade Openness

The debate on whether a causal relationship exist between trade openness and economic growth as well as the direct of causation, has lingered. Most of the works supporting this empirical evidence suffer from serious shortcomings that make their results to be questioned, such as the way trade openness is measured. For many authors, trade openness implicitly refers to trade policy orientation and what they are interested in is to assess the impact of trade policy or trade liberalization on economic growth. For other authors however, trade openness is a more complex notion covering not only the trade policy orientation of countries but also a set of other domestic policies (such as macroeconomic policies or policies related to law and institutions for instance) which altogether make the country more or less outward oriented. In such a case, what the authors are interested in is to measure the impact of global policy orientation on economic growth. Finally, one may adopt an even more global view of trade openness covering not only the policy dimension but also all other non-policy factors that clearly have an impact on trade and on the outward orientation of countries. Factors such as geography and infrastructures, for instance, do affect trade and the outward orientation of countries, whatever their policy orientation.

Historical development of Industrialization in Nigeria

The history of industrialization in Nigeria must as a matter of necessity begin with the entrance of petroleum into the Nigerian economy, acting as precursor for industrial activities. Literatures on the evolution of the industrial sector in Nigeria are in handfuls as can be found in Daibi (2014), Chete Adeoti, Adeyinka and Ogundele (2016), Udo (2014), Amakom (2008), Bennett, Anyanwu and Kalu (2015), and others. Exploration of crude oil began commercially in 1957 following decades of prospecting activities by Anglo-German Dutch giants SHELL-BP. The expansion in petroleum activities and the accompanying advancement in the economy triggered other industrial production activities beginning with refining, distribution and marketing of petroleum products which led to the building of the refineries and the gas pipelines. The refining manufacturing activities implied the availability of fuel and energy to power other industrial units, it is of note however, that prior to the oil spell the Nigerian economy was significantly agrarian and produced only primary agricultural products that were export to Europe and imported finished goods.

The industrial structure of the Nigerian economy captures many activity economic clusters which according to CBN (2017) includes three (3) major subsectors namely: manufacturing, crude petroleum and natural gas, and solid minerals among others. Thus, discussions on industrial growth in Nigeria will consider their outputs as important variables especially for performance and evaluation analysis. The manufacturing activities opened the door for other industrial production especially the solid mineral much as a result of the availability of machines and materials from manufacturing whether domestically fabricated or imported. The solid mineral and mining industry had received a boost as attention began to gradually shift from the oil craze

and following the policy of economic diversification strategy to improve growth of the economy. Every state in Nigeria can boast of a least one mineral resource especially gold, lignite, zinc, limestone, salt, bauxite etc.

Thus, industrial growth in Nigeria can be said to be driven by three sub-sectors indicated earlier. Following this, it is safe to assert that petroleum refining manufacturing activities preceded manufacturing in activities in agricultural product which is only expanding as a reaction to the growing population and the increasing demand for finished food commodities. Foreign direct investment started flowing into the Nigeria especially in the oil and gas sector because of the discovery of crude oil, Adigun (2015). Makola (2003) noted that immediately after Nigeria civil war, foreign direct investment inflow into the country also jumped up because of the need for massive reconstruction and rehabilitation of infrastructure. Also, income inequality gap has already been created immediately after independence because the few educated those who own big farmlands and business men took the lead, thereby having an edge over the illiterate masses, Bamidele (2003).

FDI Inflows and Industrial Growth in Nigeria

The economic activities of manufacturing provides for the availability of consumer goods and also capital goods that support further production. The synergy between manufacturing and the economy builds on the planning and building of industrial establishment based on the availability of financial capital with which other productive resources are pulled together. The availability of such capital within the domestic economy as relates to developing economies is usually in short supply, hence the need for foreign direct investment. The prospect of returns which industrial sector shows entices foreign investors who bring in their economic capital (machines, expatriate labor, specialists knowledge and raw materials) to build industries for the production of goods and services with demand.

According to Asiedu (2002), FDI is increasing at an extra ordinary speed in modern times, and the United States of America, France, the Netherlands, Britain, as well as China; are among the major countries that supply foreign capital to Nigeria. The bulk of these FDI flows go into the oil sector. The oil industry continues to receive a large chunk of all foreign direct investment coming into Nigeria at least as long as the business environment remain attractive. FDI inflow into Nigeria in recent years is probably a factor that has placed it as the largest economy in Africa. This however has been a mixed fortune as other components of the industrial sector wallow in neglect. UNCTAD (2016) observed that the receipt of FDI by Nigeria began to decline in 2015 by 27% (\$3.4 billion), as the nation was hard hit by the global drop in oil price, against this backdrop she accounted for about 6% of FDI inflow to Africa and received approximately 31% of the sub-regional total, with the oil and gas sector alone receiving about 70% of the FDI inflow. In essence, FDI over the years domiciled mainly in the now gloomy oil sector in Nigeria is contributing to the underdevelopment of the industrial sector.

Foreign direct investment into a country opens up its industrial sector to new production techniques that enhance the competitiveness of consumer goods through quality assurance. Apart from enlarging the size of the industrial sector, foreign direct investment facilitates the building up of local content in the industrial sector which enables the development of the domestic productive resources for economic growth and development. The influx of foreign direct investment triggers a kind of destructive innovation and growth by replacing substandard domestic input and technique with globally competitive resources considering technology, manpower, and other competitiveness indices.

Empirical Review

Idoko and Taiga (2018) in their examination of the effect of Foreign Direct Investment (FDI) on manufacturing sector output growth in Nigeria for the period of 1981 to 2015, adopted the Vector Auto Regression (VAR) technique and Johansen Co-integration test in the data analysis. The impulse-response function test and the variance decomposition test shows that FDI had a positive but minimal effect on the manufacturing sector output in Nigeria. The Co-integration test results show that there exists a long-run relationship between FDI and the manufacturing sector output growth in Nigeria. To improve on the gains of FDI on the manufacturing sector, the study therefore recommended that government should carryout infrastructural development, like power supply to improve the absorptive capacity of manufacturing firms; and effort should be made to increase productivity in the manufacturing sector by upgrading its technologies.

For Hammed, Musibau and Agboola (2017), their study on the impact of foreign capital inflows, corruption, and infrastructure on economic growth among ECOWAS members over the period 1980 to 2016 could not find a concordant traction between the regressand and the regressors. They adopted the Two-Gap model using ECM method, the findings indicated the existence of long run causality running from the explanatory variables to economic growth. Also, they found short run causality between FDI, infrastructure and corruption on growth but Political stability does not cause growth in short run. Findings of the study also established a negative relationship between FDI, Infrastructure and real growth while ODA, corruption, political stability have positive impact on real growth among ECOWAS members. The study recommended policy across the ECOWAS countries that will attract foreign capital inflow, and that policy makers should look

inwards, re-strategize and begin to formulate and implement sound and credible economic policies that will be aimed at attracting productive capital inflows into the region.

Akpan and Eweke (2017) in an extended study investigated the impact of foreign direct investment (FDI) and industrial sector performance on economic growth in Nigeria; this was for annual time series data spanning 1981-2015. Elaborate econometric analysis tested the sensitivity of GDP to shocks in FDI and Industrial Sector Output, using the Impulse Response Functions (IRFs) and Variance Decomposition (VDC) techniques within a Vector Autoregressive (VAR) framework. The findings reveal the absence of a long-run relationship between FDI, Industrial Sector Output and GDP, and also the existence of a bidirectional relationship between FDI and Industrial Sector Output, GDP and Industrial Sector Output, with a unidirectional causality running from FDI to GDP. The VAR output indicate that FDI had a slight significant positive impact on GDP, while Industrial Sector Output had a small significant positive impact on GDP at present, with a negative relationship observed at previous periods.

Okonkwo (2016) investigated the effect of foreign portfolio investment on industrial growth in Nigeria. The major aim of the study was to establish empirical relationship among foreign portfolio investment and industrial productivity in Nigeria. The ordinary least square (OLS) estimation technique was employed in this study, and the findings revealed that there is statistically significant positive relationship existing among foreign portfolio investment, gross fixed capital formation, market capitalization and industrial growth proxied by industrial production index (IPI) in Nigeria. Hussain and Haque (2016) indicates the growing interest in the studies of how inflows of foreign capital trigger the growth and development of the industrial sector. They investigated foreign direct investment, trade and economic growth in Bangladesh using annual time series data from 1973-2004 within the VECM framework. The finding show that FDI has a positive significant impact on industrial growth. The scope, data and methodology employed in researches explaining relationships and impact of foreign capital flows and industrial growth has continued to vary depending on the prevalent economic and even socio-political indicators of each economy or region. This in effect means that outcomes in all the cases will not always be the same

Orji and Nchege (2016) studied the impact of foreign direct investment on the Nigerian manufacturing sector over the period of 1970 to 2010. In evaluating the objectives, the study employed the classical linear regression model and discovered that within the period under review, FDI impacted negatively on the manufacturing sector. they noted however that the unhealthy relationship can be reversed if the country receives increased FDI inflows into critical sectors that support the necessary inputs and raw materials needed by the local industries. They recommended that competitive policies should be enacted by the government that will ensure proper functioning of the markets necessary to attract well targeted foreign investors in Nigeria.; and foreign companies that kill local productive and manufacturing efforts should not be allowed to operate in Nigeria's local business environment. Okoli and Agu (2015) employed the OLS and VECM techniques to assess the impact of foreign direct investment flow on the performance of the manufacturing firms in Nigeria spanning a period of 40 years, with data sourced from World Bank and CBN statistical bulletin, which revealed that FDI inflows had a positive impact only in the long-run. The results obtained suggest the need for government actions to be put in place to strategically maintain and sustain policies that will help encourage FDI inflows to promote an efficient and enabling macroeconomic environment on which manufacturing firms can thrive.

For Mensah, Ofori-Abebrese and Pickson (2016) researching for evidence(s) in Ghana; set out to ascertain the relationship between industrial performance and macroeconomic factors such as foreign capital inflows. They employed the ARDL (Autoregressive Distributed Lag) framework, the findings indicate a cointegration relationship between industrial output and macroeconomic factors, they opined that the major macroeconomic factors affecting industrial performance in Ghana were lending rate, inflation, employment and government expenditure. Based on the findings, they recommend that the government of Ghana stabilize the macroeconomic environment in order to achieve industrial growth and development. Tang (2015) examined the foreign capital flow effects on the European Union (EU) economic growth during 1987-2012 and found that the higher foreign direct investment (FDI) and portfolio investment (FPI) triggered by the European Monetary Union (EMU) have not contributed to growth. The lack of the FDI effect is surprising as they bring enormous benefits.

The result of this study has provided the basis for understanding the economic implications of policies regarding foreign capital flow. It further enhances strategic combinations of trade policies that booster sectoral performance for industrialization. Additionally, it has laid the foundation for the practice seeing foreign capital flow as comprising foreign aid, foreign portfolio investment, foreign aid, foreign loans, foreign technology and remittances; as against the practice of lumping them together as foreign direct investment. It therefore makes for more comprehensive research when the component variables are separately treated in a model where industrial sector growth and performance is the explained variable. Finally, the study will hence serve as a point of reference for empirical investigations seeking to x-ray how foreign capital flows trigger and drive

industrialization of developing economies where indigenous technology is almost nonexistent, and domestic capital inadequate to finance industrial policies.

Theoretical Framework

The Location Theory

Theories which seek to explain how foreign capital inflow (FCI) propel industrial growth in the economies of developing countries abound in literatures. FCI theories are primarily based on imperfect market conditions while a few among them are based on imperfect capital market. Others consider non-economic factors. Still others explained the emergence of Multi-National Corporations, (MNCs) exclusively among developing countries. The theoretical framework adopted in the study is the location theory. This theory as propounded by Hoover (1937) is concerned with territorial allocation of resources within a country. The location theory explains FCI in the context of the location specific factor differentials. Location theory assumed that supply (cost factors) and demand (market factor) variables that affect the distribution processes of firms. The comparative advantage, the availability of raw materials and transportation cost are main determinants of foreign capital flows in this theory. The assumptions are: availability and cost of inputs can explain the existence of FCI; marketing factors are the main factors that stimulate foreign firms to invest abroad, and Thirdly, direct investment is stimulated by the existence of trade barriers.

The location theory's explanation for foreign capital inflow can be discussed by the following factors: Firstly, availability and cost of inputs can explain the existence of FCI. A firm considers the source of input and cost of production in order to choose the location. Therefore, a firm investing abroad may be attracted by the availability in another country of some inputs, which are scarce at home, or by the lower cost of inputs abroad such as lower labor cost. The lower labor costs can be the main reasons for direct investment in developing countries. Secondly, marketing factors are the main factors that stimulate foreign firms to invest abroad. A firm can get many advantages by locating a production plant near the market. Firms can conduct business smoothly due to locating the firm abroad, because the firm can better exploit the local market, tariff barriers can be avoided and transportation cost can be reduced. Moreover, the production via the setting up of subsidiaries in a host country may be more accepted by the local people than direct exporting. Thirdly, direct investment is stimulated by the existence of trade barriers. Subsidiaries of foreign firms are often set up in another country that is not yet subject to trade restrictions. Then the products are exported to those markets that have imposed restrictions on the exports of the investing country. Finally, the factor of government of host countries has an effect on FCI, such as lower tax rates, better infrastructure, and greater political stability. These create a favorable investment climate. A firm is often attracted to invest abroad because another country offers advantages.

III. Methodology

The study is empirical and focuses more on time series analysis of the variables. The study adopted the *ex-post facto* research design due to its suitability in forecasting time series variables. The analytical techniques employed in the study include, the Autoregressive distributed lag method (ARDL), Augmented Dickey Fuller Unit Root test, the Bounds approach to Cointegration, and the Breusch-Godfrey test of serial correlation.

Sources of Data

Time series data on the variables (industrial sector output of GDP, foreign direct investment, foreign portfolio investment, foreign loans, imports of foreign technology, and trade openness) were collected from various sources such as the Central Bank of Nigeria (CBN) statistical bulletin, the Nigerian Stock Exchange (NSE), and the Debt Management Office (DMO) Annual Reports for the period 1985 to 2017.

Model Specification

To estimate the impact and test the hypotheses, the study adopted the model by Okoli and Agu (2015) that makes manufacturing output a function of foreign direct investment flows, labour supply (proxy by the secondary school enrollment). The functional relationship between the dependent and independent variables were established as follows:

$$\text{MOPT} = f(\text{HCS}, \text{DI}, \text{FDI}, \text{LS}) \dots 1$$

Where;

MOPT= Manufacturing sector output

FDI = Foreign Direct Investment Flows

LS = labour supply (proxy by the secondary school enrollment)

HCS = Human Capital Skill (proxy with budget on education and health)

The model above is modified by using industrial sector contribution to gross domestic product as a function of foreign direct investment, foreign portfolio investment, foreign technology, foreign loan, inflation rate, and exchange rate. Hence the model for the study is specified functionally as:

$$ISGDP = f(FDI, FPI, FL, IFT, ECHR, INFLR, TOP) \dots (2)$$

Where;

ISGDP = industrial sector contribution to the GDP,

FDI = foreign direct investment

FPI = foreign portfolio investment,

FL = foreign loans,

FTI = imports of foreign technology

ECHR = exchange rate

INFLR = inflation rate

The econometric form of the model is:

$$\text{LOGISGDP} = \beta_0 + \beta_1 \text{LOGFDI} + \beta_2 \text{LOGFPI} + \beta_3 \text{LOGFL} + \beta_4 \text{LOGFTI} + \beta_5 \text{ECHR} + \beta_6 \text{INFLR} + \beta_7 \text{TOP} + \mu_t \dots (3)$$

β_0 = constant term

U_t = the error term

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 are the coefficients of the parameter estimate

The a priori assumptions of our model are: $\beta_1, \beta_2, \beta_3, \beta_5$ and $\beta_6 < 0$, while $\beta_4 > 0$.

Description of Model Variables

Industrial Sector Output of GDP (Dependent Variable): is the share of the industrial sector in the gross domestic product. According to the CBN statistical bulletin (2016), it is the total outputs of all the productive activities by firms in the industrial sector.

Foreign Direct investment (Independent Variable): represents Investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor. Opaluwa et al (2012) examined the effect of Foreign Direct Investment (FDI) on the Nigerian manufacturing sector. According to Opaluwa et al (2012), most countries strive to attract Foreign Direct Investment (FDI) in the manufacturing sector because of its acknowledged advantages as a tool of economic development. For this study, we expect FDI to be positively related to manufacturing output.

Foreign Portfolio investment (Independent Variable): refers to the short-term investments by foreign entities in the financial markets; these are indirect investments and include investment in tradable securities, such as shares, bonds, debenture of the companies. Okonkwo (2016) used this variable in his study of Foreign Portfolio Investment and Industrial Growth in Nigeria.

Foreign Loans (Independent Variable): is the total debt a country and her citizens owes to foreign creditors, whether individuals, corporate organizations of governments, Ubom (2014) employed this variable in the study of Economic Implications of Foreign Loans on Real Sector Development in Nigeria.

Exchange rate (Control Variable): represents the value of one currency expressed in terms of another currency; it simply means how much it will cost to obtain one currency using another. The exchange rate of the naira is expressed in terms of major World currencies especially the dollars (\$).

Inflation rate (Control Variable): the persistent increase in the general prices of a basket of goods and services in an economy over a period of time. It is a fluctuation in the business cycle characterize by high prices, rising profits, investments and output.

IV. Results And Discussion

Descriptive Statistics of the Dependent and Independent Variables

This subsection contains results obtained for selected central measures and dispersion, graphical trend of the variables.

Table 1: Selected measures of central tendency and dispersion

	LOGISGDP	LOGFDI	LOGFTI	LOGFPI	LOGFL	TOP	EXCHR	INFLR
Mean	9.16	5.08	5.53	4.81	6.89	0.325	97.74	19.94
Std dev	0.245	0.14	0.29	0.516	1.21	0.11	9.55	1.15
Skewness	0.19	0.04	0.47	0.06	0.39	0.16	0.28	1.63

kurtosis	1.84	1.61	2.23	1.59	2.47	2.81	2.83	3.01
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Source: Author's computation (E-views 10)

The table 1 shows the selected statistical summary of the data employed in this study. As seen, the industrial sector gross domestic product has the highest mean value and the movement of other variable cluster around it. With FDI, FPI and TOP having the least mean deviations, it means that they are more effective in explaining variations in ISGDP since the farther the standard deviation is from the central point, the less the effect. The total observation 33years which is a long enough period to make conclusions regarding the industrial sector in particular and the aggregate economy as a whole.

Graphical trend of growth and relationship of the variables

The first step in any empirical analysis is an overview of the data itself. In particular, the subsequent analysis makes use of data on industrial sector contribution to the gross domestic product (ISGDP), foreign direct investment (FDI), foreign portfolio investment (FPI), imports of foreign technological equipments (FTI), foreign loans (FL), trade openness (TOP), exchange rate (EXCHR) and inflation rate (INFLR). Consider their individual graphs below:

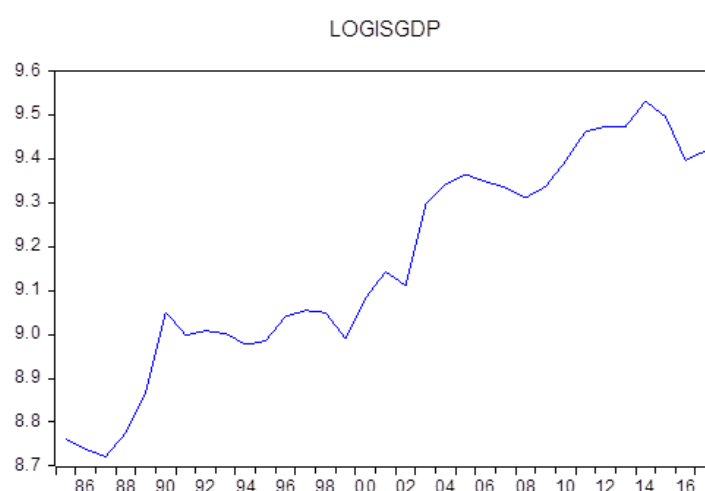


Fig 1: Industrial sector growth trend

In the graph above, the trend line for industrial sector growth showed a sharp growth between 1986 and 1990, it crawled from then till another sharp shoot was witnessed in 2002. There was a leap from 2003 which kept on an increasing upward movement up to 2013. The leap made by the year 2003 could be attributed to the fact that the assumption of democratic governance in 1999 only began to manifest in 2003 when government began some strong policy actions regarding economic management. A close look at the graph also reveals the sharp and steep downward slope in industrial sector output growth in 2014, this could probably be as a result of the oil price misfortune which saw both private and public sectors struggling to catch up with the difficult economic realities that set in.

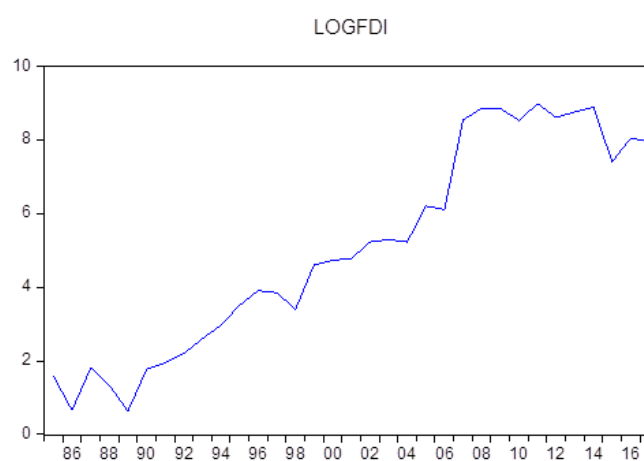


Fig 2: Graphical trend of foreign direct investment

The figure above reveals the movement situation of foreign direct investment into Nigeria. It could be seen that there was a sharp growth in three periods: 1989-1992, 2006-2010, and 2010-2012. The last two periods which ended in 2010 and 2012 respectively explains the huge inflows of FDI as a result of government industrial policies especially the Automobile Industry Bill (AIB).

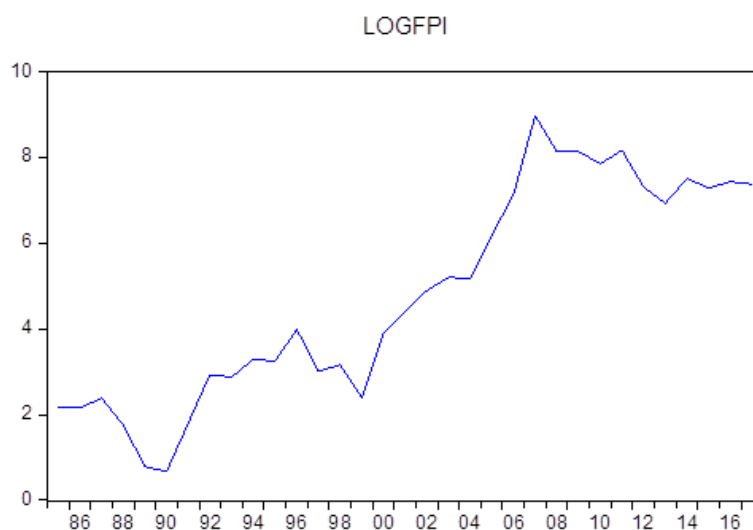


Fig 3: Growth trend of Foreign private investment

Foreign private investment showed an erratic movement pattern which of course could be attributed to the unstable political activities of government and some unfavorable policy statements by various administrations. Foreign portfolio investments which follow the stock exchange situations always depend on market environment in terms of all share index, market capitalization and equities; hence the graph shows very sharp successive crests and troughs.

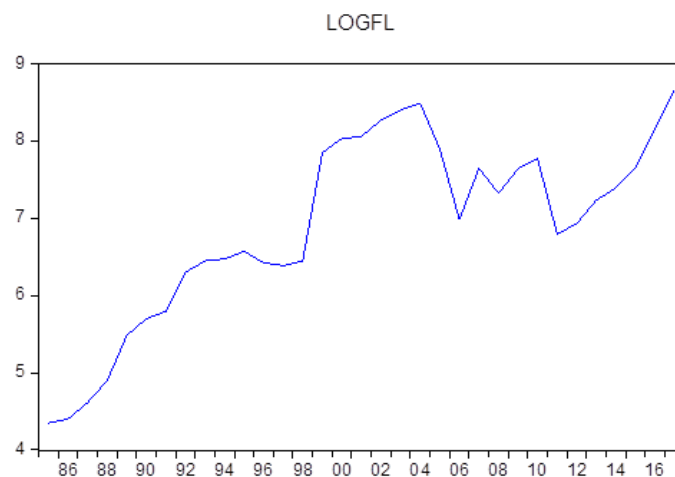


Fig 4: Growth trend of Foreign Loans

Foreign loans were no much of concerns until 1998 when there was a sharp push in government demand for foreign credit facilities. This sharp thrust in growth of foreign loans reoccurred in 2004 before slowing steeply down in 2006 as a result of the debt forgiveness on Nigeria by the Paris Club of creditors in 2005 negotiated by the then minister for finance, Dr. Ngozi Okonjo Iweala. The loan status maintained a modest posture until 2015 when on assumption of office the new government embarked on a loan spree with China. In fact, as Moghalu (2018) had stated, the loan for 2017 alone was more than the aggregate value for 1985-2004, and the three year value for (2015-2017) was more than the value for (1999-2014).

Openness of the economy to international trade as seen reflects the business cycle movement. It also shows that there has been an alternation between restrictions and liberalizations, an indication that government has been active in the foreign sector of the economy regarding imports and exports. The sharp thrust in 1994 may have been a counter measure remedy the trade restrictions of 1986.

Table 2: Unit Root Test for Stationarity

Variable	@Level	@ 1 st Diff	Critical value	Order	Remark
LOGISGDP	2.180117	5.242045	3.562882		1(1) Stationary
LOGFDI	3.068791	7.059082	3.562882		1(1) Stationary
LOGFPI	3.897551	-	3.557759		1(0) Stationary
LOGFL	1.918470	5.080626	3.562882		1(1) Stationary
LOGFTI	2.745407	8.969629	3.562882		1(1) Stationary
INFLR	3.382557	5.314370	3.562882		1(1) Stationary
EXCHR	3.035778	5.38674	3.562882		1(1) Stationary
TOP	2.699218	7.929593	3.562882		1(1) Stationary

Source: Author's computation (E-views 10)

The test for stationarity conducted using the Augmented Dickey Fuller Test (ADF) shows the data on foreign portfolio investment (FPI) became stationary at level 1(0) while others (industrial sector gross domestic product (ISGDP), foreign direct investment (FDI), imports of foreign technology (FTI), foreign loan (FL), trade openness (TOP), exchange rate (EXCHR) and inflation rate (INFLR), all achieved stationarity at first differencing. Differencing is done when the data set fails to be stationary at level, Stationarity is concluded if the ADF statistic is greater than the 5% critical value or if the probability value (P-value) is less than (0.05). Hence, stationarity and integration was achieved at order 1(0) and 1(1).

Cointegration Test of Long run Relationship

The data were not all stationary and integrated of the same order in which case the Johansen cointegration no longer holds. The most suitable long run test is the Bounds test of long run relationship, the result is presented below:

Table 3: Bound Test Results.

Null Hypothesis: No long-run relationships exist				
Test Statistic	Value	K		
F-statistic	10.63816	7		
Critical Value Bounds				
Significance	I0 Bound	I1 Bound		
10%	2.03	3.13		
5%	2.32	3.5		
1%	2.96	4.26		

Source: Author's computation (E-views 10)

As seen in table 3 above, the test statistic of the Bounds test of long run relationship indicates the presence of a long-run relationship among the variables at 5% level of significance, thereby leading to the rejection of the null hypothesis of no long-run relationship and acceptance of the alternative. There are three options for the decision criteria when using the Bounds approach to cointegration: if the calculated F-stat is greater than the critical value for the upper bound 1(1) then we can conclude that there is long-run relationship; if the calculated f-stat falls below the critical value for the lower bound 1(0), there is no cointegration, hence no long-run relationship; and the test is considered inconclusive if the f-stat falls between the lower bound 1(0) and the upper bound 1(1). The obtained f-stat of 10.63816 is greater than the critical value for the upper bound 1(1) at 5% level of significance ($10.63816 > 3.5$), hence it is concluded that the variables show evidence of long-run relationship.

Estimation Result

This section displays estimation results of the impact of the independent variables on the dependent variable using the autoregressive distributed lag (ARDL) method; this became necessary since the data did not achieve stationary status at the same order.

Table 4: ARDL estimates

Variable	Coefficient	T-statistic	P-value
LOGFDI	0.153030	4.43501	0.0030
LOGFPI	-0.034403	2.31149	0.0423
LOGFL	-0.096115	2.718155	0.0298
LOGFTI	-0.151130	5.018871	0.0015
TOP	-0.342740	2.534928	0.0390

EXCHR	0.055877	1.511402	0.1744
INFLR	-0.0070	0.551673	0.5983

Source: Author's computation (E-views 10)

Table 4 above shows the estimated coefficients of the variables using the system equation estimation of the vector error correction equation. As seen, the t-statistic and the corresponding probability (p-value) are matched showing that foreign portfolio investment (FPI), foreign loan (FL), foreign technology equipments import (FTI), inflation rate (INFLR) and trade openness (TOP) bear negative sign while foreign direct investment (FDI) and foreign exchange rate (EXCHR) are positive.

Table 5: Test of Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	7.744530	Prob. F(2,5)	0.0294
Obs*R-squared	23.43499	Prob. Chi-Square(2)	0.0000

Source: Author's computation (E-views 10)

Serial correlation is concluded when observed data appear to have a natural sequential order. Table 7 shows that the LM-Statistics with p-value of 0.0295 indicate the absence of serial correlation in the model since the p-value is less than the critical value at 5% level of significance. Thus, we can conclude that there is no presence of serial correlation in the model.

Test of Research Hypotheses

This section of the study involves the use of relevant statistics to determine the level of probability in the trueness or falsehood of a statement, such statements includes those already mentioned in the hypotheses in the earlier sections of the study. In the operation, conclusions were made using the parameter estimates and their probability values at 5% level of significance.

H₀₁: Foreign direct investment has no significant impact on industrial sector growth in Nigeria.

HA₁: Foreign direct investment has significant impact on industrial sector growth in Nigeria

Decision rule: Accept **H₀** if T-stat < 2 or P-value > 0.05, otherwise reject it and accept the alternative.

The estimated coefficient of FDI according to the regression result on table 4, is 0.153030, t-stat of 4.4350, and p-value of 0.0030; the study hereby reject the null hypothesis and accept the alternative, the conclusion is that foreign direct investment impacts positively and significantly on industrial sector growth in Nigeria. This means that one unit increase in foreign direct investment variable will result to 0.153030 billion naira increases in the output of the industrial sector in Nigeria.

H₀₂: Foreign portfolio investment does not impact significantly on industrial sector growth in Nigeria.

HA₂: Foreign portfolio investment impacts significantly on industrial sector growth in Nigeria.

Decision rule: accept **H₀** if T-stat < 2 or P-value > 0.05, otherwise reject it and accept the alternative.

From table 4, it is observed that the estimated coefficient of FPI is -0.034403, t-stat of 2.1149, and p-value of 0.0423; the study hereby rejects the null hypothesis and accepts the alternative. In conclusion, foreign portfolio investment impacts significantly but negatively on industrial sector growth in Nigeria.

H₀₃: Foreign loan does not significantly impact on the growth of industrial sector in Nigeria.

HA₁: Foreign loan does not significantly impact on the growth of industrial sector in Nigeria.

Decision rule: accept **H₀** if T-stat < 2 or P-value > 0.05, otherwise reject it and accept the alternative.

Arising from the estimation result (see table 4), the coefficient of FL is 0.096115, the t-stat is 2.718155, and p-value of 0.0298; the study hereby reject the null hypothesis and conclude that foreign loan has negative and significant impact on industrial sector growth in Nigeria for the period reviewed.

H₀₄: Trade openness has no significant impact on industrial sector output in Nigeria.

Alternatively restated as:

HA₄: Trade openness impacts significantly on industrial sector output in Nigeria.

Decision rule: Accept **H₀** if T-stat < 2 or P-value > 0.05, otherwise reject it and accept the alternative.

Estimation results for TOP on table 4, showed a coefficient of -0.342740, t-stat of 2.534928, and p-value of 0.0390; following the decision rule therefore, the study hereby reject the null hypothesis. The conclusion follows that trade openness does impacts negatively and significantly on industrial sector growth in Nigeria

From table 4, it could be seen that the foreign capital flow (FCI) variables do not only have positive sign but also significant values except for foreign portfolio investment (FPI) which appeared with a negative

sign. The outcome is in tandem with the empirical result by Narayan (2013) and Ellahi (2011) which showed that the capital flow variables play important role for improving industrial growth. The variables are foreign direct investment, foreign private investment, foreign loans, foreign technology and trade openness, the respective results is the following discuss.

It could be observed also from table 4 in the previous chapter that the estimate for FDI betrayed the apriori predicted sign (-). This shows that an increase in the size of FDI variable will lead to a positive change in the aggregate industrial sector output in Nigeria. Precisely, one unit appreciation in (FDI) will lead to 0.153030 billion naira increase in the aggregate sector output. The implication of this finding is that foreign direct investment movements play positive significant roles in the growth of the Nigerian industrial sector, given the probability value of the estimated coefficient ($0.0030 < 0.05$). this result is at variance with those of Idoko and Taiga (2018), Orji and Nchege (2016), Ebekozen, Ugochukwu and Okoye (2015), Obiechina and Ukeje (2013), and Olusanya (2013) which results show that FDI inflows has negative impact on industrial sector growth.

The negative but significant coefficient value of foreign portfolio investment (FPI, -0.034403, p-value 0.0423) may be seen to validate the held view of volatility of stock market variables. This suggests that the foreign portfolio investments are yet to pay off as a result of instability in the stock market indicators. The implication of this result is that unless drastic measures are taking to stabilize market indices and secure investors confidence, foreign portfolio investment into the industrial sector and the economy at large will nosedive. Political developments sway decisions of foreign private investors in the direction of liquefying and repatriating their assets in case of shaky and negative economic policies. What could drive a surge in the inflow of foreign capital (portfolio investment) consists of clear-cut policy direction and favourable business environment (ease of doing business). This result is in concord with the study by Ekeocha, Malaolu and Oduh, (2012) showed that that FPI has a negative long-run relationship and impact on Nigeria's manufacturing sector.

Reliable information available in the public domain show that huge amount of money is borrowed by government for every fiscal year. This accounts for while debt servicing accumulates in the annual budget. The negative insignificant coefficient value of the foreign loan variable in the study (FL, -0.096115, p-value 0.0298) betrays the postulation that government borrowing will boost economic sectors. However, it should be noted that the theories rest on assumptions, one of which in this instance, is that the money borrowed by government is actually channeled for the intended purpose. Hence, it appears that rather than driving sectoral growth, it only open up new resources that constitute additions to government coffers. This hints us that more attention should be paid into fiscal responsibility of ensuring that foreign loans are specifically generated for the purpose of regenerative activities such as boosting industrial sector performance through the provision of critical infrastructures. Ubom (2014) had found that a positive relationship exists between foreign loans and real sector growth which agrees with the findings in this study; but Ezeabasili, Isu and Mojekwu (2011) found that external debt has negative relationship with industrial out growth in Nigeria, the result is not at variance with the findings of this study which showed a negative impact of foreign loan on real sector growth. However, their pairwise Granger Causality test revealed that uni-directional causality exists between external debt industrial growth which means that external debt granger cause industrialization, this tallies with the finding of this study. The reason for the non significant value of foreign loans (FL) and foreign technology are obvious: foreign loans are either embezzled or mismanaged such that implementation of original objectives were stalled, hence it is unable to create the desired impact; the industrial sector may not have fully internalized the process of application of foreign technology in domestic production, hence it is yet to produce the expected results.

Conversely, trade openness did not conform to its apriori prediction of a positive sign; the coefficient magnitude of -0.342740 indicates that a depreciation in cross-boundary (international) trade activities spells negative growth of the industrial sector and the economy at large. It implies that with more unrestricted access to the international markets, new industrial resources could flow into the country to aid the sectoral performance; this result however is in tandem with the empirical findings by Ubi, Lionel and Eyo (2012) which showed a negative significant impact of exchange rate and trade openness variables on economic growth. The implication of this negative interaction is that growing difference in the market rates of the official and parallel foreign exchange windows is not favourable.

Policy Implication of the Results

The study investigated the impact of foreign capital inflow on industrial sector growth in Nigeria from 1985-2017. the results obtained showed that foreign capital inflows have negative impact on the growth of the industrial sector, this produces some far reaching policy implications. The result obtained for foreign direct investment showed a positive and significant coefficient (0.153030, 0.0030), the implication of this result is that 10% increase in foreign direct investment will lead to 0.15 billion naira increase in industrial sector contribution to the gross domestic product. This implies that a substantial part of all foreign direct investments has to be channeled towards the industrial sector.

For foreign portfolio investment (FPI), the coefficient and p-value is (-0.034403) and (0.0423) respectively. The implication is that 10% decrease in foreign portfolio investment will trigger 0.00034 billion shed in industrial sector output. This result is insightful because foreign portfolio investment movement is erratic, volatile and unpredictable because it follows the trend in the capital markets. Foreign loan was estimated to have a coefficient of -0.096115 with a p-value of 0.0298, the implication is that every 10% shed in foreign loan, a corresponding 0.096 billion is lost from industrial sector contribution to the gross domestic product. This also implies that the domestic financial system has to be reenergized to be able to shoulder large sectoral financing needs of the economy and reduce reliance on foreign loans which come with more disadvantages in terms of interest payments and servicing

Similarly, the result also showed that trade openness has significant and negative impact on industrial sector gross annual out. It is implied that 10% shed in the level of permeability of the economy to international trade could produce 0.343% decrease in industrial sector output. Exchange rate and inflation rate were control variables in the model, the result for both variable showed negative impact on industrial sector performance. The implication drawn from their outcome is that 10% increase in them would produce 0.056% and 0.007% decline in industrial sector growth respectively.

V. Summary, Conclusion And Recommendation

Summary of Findings

The summary of the major findings of the study are:

1. Foreign direct investment (FDI) has a positive significant impact on industrial sector growth in Nigeria.
2. Foreign portfolio investment (FPI) has a significant negative impact on industrial sector growth.
3. Foreign loan (FL) has a negative significant impact on industrial sector growth in Nigeria.
4. Trade openness (TOP) has negative significant impact on industrial sector growth.
5. Exchange rate (EXCHR) has positive insignificant impact on industrial sector growth in Nigeria.

Conclusion

The study empirically examined the impact of foreign capital flows on the growth of the industrial sector in Nigeria. Data for a sample period of 1985-2019 were analyzed by utilizing descriptive indicators and econometric diagnostic tests while the system equation least squares estimation was employed for the relationship determination and impact analysis. Based on the findings, the study concludes that foreign capital inflow has significant positive impact on industrial sector growth in Nigeria

Recommendations

Following the findings, the study recommends as follows:

1. Government trade policies should target FDI growth and channel it towards industrial initiatives that will stimulate the sectoral output.
2. Industrial growth responds to foreign private investment; hence government should continuously ensure the ease of doing business to encourage foreign investors in the industrial sector.
3. The federal government of Nigeria should review its economic policy direction and encourage private sector participation and market based economic reforms.
4. There is a need for a review of trade policies that put excruciating pains on imports and export activities, so that there is no barrier to trade in industrial items.
5. The study also recommends policy to encourage capital inflows via the provision of enabling environment, reduction of political instability and diversification of demotic economies.

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