An Empirical Assessment of the Impact of Commercial Banks' Lending on Economic Development of Nigeria

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Abstract

The pace of development in Nigeria economy which is rich in oil is not commensurate with the revenue from crude oil exports coupled with the increasing banking credit to the economy. This raises a question on efficiency and effectiveness of banks' in discharging it function of credit mobilization and distribution of resources to deficit economic units. In this regard, this study empirically assesses the impact of commercial banks' lending on economic development of Nigeria from 1986 to 2015 by specifically ascertaining the impact of commercial banks' lending on real gross domestic product and index of industrial production. The data sourced from the Central Bank of Nigeria statistical bulletin were diagnosed for serial correlation, heteroskedasticity and Ramsey Reset model fitness specification and stationarity. The Johansen co-integration envisaged a long run relationship between commercial banks' lending and gross domestic product but such could be said for index of industrial production. The granger impact assessment result shows that commercial banks' lending has significant impact on real gross domestic product and real gross domestic product on the other hand, has significant impact on credit to private sector. Index of industrial production was not significantly influenced by commercial banks' lending activities. The vector error correction model depicts that for achievement of long term growth and development of the Nigerian economy, commercial banks' lending is very pivotal as the high interest rate charged by commercial banks' remain a threat to the positive influence of banks' credit to the economy. The Central Bank of Nigeria should implement regulation to stop banks from centring loans and advances to a particular sector which is, oil and gas to improve credit flow to other strategic sectors, especially agriculture and industries to increase their contributions to gross domestic product of Nigeria. The monetary policy of the Central Bank of Nigeria should complement fiscal policies of the government to reduce the level of inflation in country, having regard to its negative effect on index of industrial production.

1. Introduction

The critical role of financial institutions towards the growth and development of the economy cannot be over emphasised. For a sustainable growth in any given economy, financial resources must be effectively and efficiently mobilised and allocated in such a way to harness the synergies between human, material and managerial resources for optimal economic output (Owusu, 2016). The mobilization of funds for productive economic activities are heighten by operation of financial institutions and stability and reliability of the financial system in general. The nexus between financial development and economic growth was traced to the work of Schumpeter 1911 who envisaged the role of banks in facilitating technological innovation through their intermediary role. On the standpoint of Schumpter (1911), efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieve this objective (Oluitan, 2012). Within the theoretical literature, it generally accepted that intensification of financial instruments and institutions would tremendously reduce transaction and information costs in an economy which in turn influences savings rate, investment decision and technological innovative ventures (Nwakoby & Ananwude, 2016). The capacity of

banking enterprise to provide potentially unlimited funding outside household savings and corporate internally retained earnings provides basis for ever expanding productive entrepreneurial activities, thus causing the economic growth process to experience quantum leaps (Nwakanma, Nnamdi, & Omojefe, 2014). The level of credit in an economy has the capacity of increasing consumptions, which in turn leads to creation of jobs and higher gross domestic product. When productive resources are purchased with fund, economic development and national income is spurred. Credit creation via commercial bank activities helps in increasing the price of common stock, hence an upsurge in firms' value. The principal role carried out by commercial banks is to ensure there is adequate flow of money to serve the deficit sectors of the economy and facilitate the movement of funds among economic units (Ogege & Boloupremo, 2014). This increases the financial intermediation process in the country which according to Nwakoby and Ananwude (2016), is very critical as most of the financing that takes place in the economy is consequent to intermediary functions of both commercial banks and non-bank financial institutions.

The financial sector has expanded over the years in comparison to non-financial segments of the economy in the quest to achieve rapid and sustained economic development by various government, especially in developing countries of the world. As a result, commercial banks has contributed more to economic growth and development of these countries. Lending being the primary function of commercial banks can have strong implication for private sector growth and will probably be impeded in times of crisis by the riskiness of the business environment that often accompany economic contraction (Ojeaga, Odejimi, Okhiku, & Ojeaga, 2014). This is because credit helps to create and maintain a reasonable business size as it is used to establish and/or expand the business to take advantage of economies of scale, improve informal activity and increase its efficiency (Nwakanma et al., 2014). The government of Nigeria has initiated and implemented programmes towards economic development through bank credits. The Central Bank of Nigeria has over the years prescribed or regulated the quantum of banks' credit to different sectors of the economy, particularly agriculture, manufacturing and small and medium scale enterprises. Bank credit control is also a tool for achieving monetary policy objectives. In Nigeria banking history, the banking failures prior to the banking ordinance of 1952 were attributed to impulsive and uncontrolled loans and advances which threatened the financial system and slowed the acceleration of economic development. The major idea behind the banking reform of 2004 by way of increasing the minimum capital requirement by 1,150% was to ensure that banks are liquid and financially stable to give loans and advances to productive economic units to increase the pace of economic development and growth. The vision 2020 of the government to be among the twenty leading economy in the world can only be achieve by proper and efficient functioning of the financial system, remarkably the banking sector as virtually all productions depend on finance from commercial banks.

Lending practice of banks are very pivotal for the survival, imprudent granting of credit by bank managements results in huge debts which unsympathetically affects operations and effectiveness and efficiency in bridging the gap between the surplus and deficit units in the economy. Commercial banks are superior to stock markets in providing short term financing, low risk and collateralized ventures as opposed to high risk and longer term investment and these constitute the Nigeria economic environment coupled with macroeconomic uncertainties. Pragmatically, it is indispensable to regulate commercial banks' credit system for overall economic growth and development owing incompletely to subjective nature of lending. Mamman and Hashim (2014) noted that lending is the first and most important function of commercial banks account of firstly, the general public or customers use lending in assessing banks stability; secondly, lending is regarded as part of legal requirement by the monetary authority, which may stipulate certain percentage of bank lending to some sectors like agriculture, small scale industries etc.; thirdly, lending is use as tool in implementation of the monetary policies of government, which affects money supply and demand in the economy and in the fourth place, lending affects pattern of production, level of entrepreneurship and consequently, aggregate output and productivity. The liquidity strains in the banking industry always limit the growth of the industrial sector of the country consequently taper the cumulative growth of the country (Tahir, Shehzadi, Ali, & Ullah, 2015). Lending practice of commercial banks is a pertinent issue in finance literature as various economic units lack the needed fund to complete an economic production process that will boost national output.

The literature on the finance and growth relationship is not settled yet, while there is a renewed interest globally into the study of credit and its ability to generate growth (Oluitan, 2012). Prominent studies in advanced countries attributed the level of economic growth and development to financial system development (Levine, 1997; McKinnon, 1973; Patrick, 1966; Shaw, 1973). Specifically, Bagehot (1873) and Hicks (1969) argue that financial development played a critical part in the industrialisation of England by facilitating the mobilisation of capital for large-scale works. In emerging economies, results are mixed and studies that would give a larger perspective on the linkage between finance and economic development are scare, magnificently affixed to mediocre state of financial system and good data inaccessibility. The total credit extended to the economy by commercial banks have been on the rise over the years. The Central Bank of Nigeria 2015 reported that ₦10, 005.6 billion was the total commercial banks credit to the economy in 2015 compared to 8.6 billion in 1981. Despite is incredible records in banks' lending to the economy, it is surprising that this has not translated to development of the country through standard of living, employment, poverty

rate and industrial production among others. The impacts of the credit contribution to the sectors are expected to be seen at least in both quantitative and qualitative terms, for instance, it is imperative to determine the extent bank credit has affected human development, reduced unemployment and poverty in the economy (Akujuobi & Nwezeaku, 2015).

The industrial production Nigeria is dwindling. The unimpressive performance of the sector in Nigeria is mainly due to massive importation of finished goods and inadequate financial support for the manufacturing sector, which ultimately has contributed to the reduction in capacity utilization of the manufacturing sector in the country (Obamuyi, Edun, & Kayode, 2011). Nigeria's financial system has progressed in recent times due to various reforms but still lag behind other emerging economies such as South Africa, Brazil, Egypt, etc., which raises alarm on the inefficient utilization of the large quantum of credit extended to the economy by commercials banks over the years. The obliqueness associated with bank credit is a recurring phenomenon in Nigeria as manufacturers and businessmen decry their helplessness in accessing finance. Interest rate on loans are very high and this notwithstanding, many small businesses lack to access credit due to collateral requirement. Accordingly, productions are hampered, which ultimately affects the gross domestic product. Based on the identified problems and the controversy as to whether bank lending stimulates economic growth or growth in the economy influences bank lending, this study assesses the impact of banking lending on economic development of Nigeria.

We observed from available online literature in this subject matter in the context of Nigeria focused mainly on economic growth where gross domestic product only was used to measure growth. (See (Akpansung & Babalola, 2010; Akujuobi & Nwezeaku, 2015; Makinde, 2016; Ogege & Boloupremo, 2014; Ojeaga et al., 2014; Oluitan, 2012)). This work been anchored on economic development which economic growth is a subset, utilized index of industrial production in addition to gross domestic product to appraise economic development. Furthermore, following the weakness noticed in the model of Marshal, Igbanibo, and Onyekachi (2015) and Nwakanma et al. (2014), inflation and bank lending rate were included to control probable effect of macroeconomic variables on economic development. Broadly, our aim is to assess the impact of commercial banks' lending on economic development of Nigeria. Specifically, we empirically assess the impact of commercial banks' lending on Nigeria's gross domestic product and index of industrial production. Mimicking the specific objectives, we hypothesize in the null format that commercial banks' lending has no significant impacts on Nigeria's gross domestic product and index of industrial production.

The rest of this paper we encompassed as follows: Section two briefly dealt on conceptual issues, theoretical underpinnings and empirical studies. The methodology was taken care of in section three as discussion of results was housed in section four while the conclusion and policy implications was featured in section five.

2. Review of Related Literature
2.1. Conceptual Issues
Lending in its simplest form is temporary given money to somebody with the intent that it will be repaid within a stipulated period of time. In the banking industry, lending of money/loan attracts some fee called interest. Commercial banks are business organizations established to carry out banking operation and maximize return to their shareholders. Banks not only grant loans and advances to customers just to fulfil their operational function but to make profit. This profit can only be earned through the interest charged on loans and advances to customers. The interest charged by banks on loans are normally arrived at by taking into account the prevalent market rate as well as the monetary policy rate of the Central Bank of Nigeria (CBN). The interest rate of banks are usually higher than the monetary policy rate of the apex bank and incorporated with other charges such as administrative fee, handling/processing fee etc. as determined by the banks from time to time. Lending is one of the main activities of commercial banks and other financial institutions in Nigeria as evident by the size of loans that form banks' assets and the annual substantial increase in the amount of credit granted to borrowers in the country (Akujuobi & Nwezeaku, 2015). The loan and advances from commercial banks to the economy have been on the rise since the introduction of Structural Adjustment Programme (SAP) in 1986. It magnificently and drastically rose from ₦15.7 billion in 1986 to 13, 086.2 billion in 2015, shimmering over 1,500% within a period of thirty (30) years. Sector analysis reveals that oil and gas sector is the most preferred by commercial banks for disbursement of loans and advances. In 2014 and 2015, a total of ₦45, 900.7 billion and ₦52, 890.6 billion were respectively extended to the economy, only oil and gas sector received ₦10, 589.2 billion (23.07%) and ₦13, 314.3 billion (25.17%) of the total credit. This situation where such predilection is giving to oil and gas sector, other sector (agriculture, manufacturing, commerce) are handicapped of needed finance for productive activities, for this reason economic growth is slowed. Timsina (2014) argues that bank lending has significant role in economic growth of Nepal as it caters resource need for growth. Aurangzeb (2012) has established that loans and advances has significant positive impact on economic growth of Pakistan. Beneficiaries of bank lending, mostly individuals, have boosted domestic consumption above internal production capacity and prices have followed an upward trend masked by a pseudo convergence process, not only for consumer goods and services or real estate assets, but mostly for labour costs (Moinescu & Codirlasu, 2011).

2.2. Economic Development

The goal of every nation, especially developing countries is to achieve a desired and sustained level of development. This is cannot be argued because ensuring a comfortable state and improving standard of living of all citizen is the priority of every government today. Economic development refers to economic growth accompanied by changes in output distribution and economic structure (Nafziger, 2006). Economic development is the improvement in the economic well-being and standard of living of the citizen via creation of jobs, reduction in poverty, increasing national income, increasing gross domestic product, increase in education and labour force skills, and supporting technological innovation among others. Economic development is some time interchanged to mean economic growth. However, there a clear distinction between the economic growth and development. In an endeavour to differentiate between the two concept, Nafziger (2006) noted that as with children, growth involves a stress on quantitative measures (height or GDP), whereas development draws attention to changes in capacities such as physical coordination and learning ability or the economy's ability to adopt to shifts in taste and technology. In other word, economic development entails improvement in all sectors of the economy. Economic development in the past has also been typically seen in terms of the planned alteration of the structure of production and employment so that agriculture's share of both declines and that of the manufacturing and service industries increases (Todaro & Smith, 2011). Consequently, developing countries usually initiate programme for precipitous industrialization, in most case, at detriment of rural development and agriculture in the bid to escape from underdevelopment.

2.3. Economic Growth

Economic growth is the increase in the output (goods and services) of a country from one period to another. Economic growth is the endless improvement in the capacity to satisfy the demand for goods and services, resulting from increased production scale, and improve productivity (innovations in products and processes) which is usually measured over a certain period of time (Olowofeso, Adeleke, & Udoji, 2015). Economic growth is widely measured using the gross domestic product which would be nominal or real. The nominal GDP is the monetary value of goods and services produced in a given, real GDP is the monetary value of goods and services by adjusting the effect of inflation. Olowofeso et al. (2015) observe the existence of divergent conceptions of economic growth and ways of measuring it, but the primary definition is in terms of growth in the long-run productive capacity of the economy, typically measured by real growth in Gross Domestic Product (GDP). Economic growth of a country is connected with the variation in certain macroeconomic fundamentals such as index of industrial production, inflation, exchange rate, manufacturing capacity utilization, etc. which are considered in macroeconomic policy formation and implementation. Economic growth is used to determine the general well-being or health of a country at any given point in time. Whenever economic activity slows down due to exogenous shocks, such as the recession of the key external partner, the income of companies and households decline, while reducing their ability to meet obligations to credit institutions (Moinescu & Codirlasu, 2011). When banks contract credits that they let use, they can cause economic stagnation and for some sectors to go through a difficult period (Korkmaz, 2015).

2.4. Perceived Linkage between Banks Lending Activities and Economic Growth

The nexus between finance and economic growth has been given considerable interest by scholars starting with the pioneering study of Schumpter (1911). Schumpeter contended that financial intermediation through the banking system is critical for economic growth and development as it affects savings mobilization and allocation, which in turn perfect productivity, technical change and pace of economic growth. Schumpeter went further to state that if savings mobilized through the banking system is efficiently and effectively allocated by way of recognising and funding entrepreneurs with the best chances of successfully implementing innovative products and production processes, economic growth would be boosted. Traditionally, it is believed that credit should propel growth in the economy, however, Tahir et al. (2015) while acknowledging the assertion of Luintel and Khan (1999) stated that the impact of credit is not always being positive on economic growth, and it is not difficult to understand the real way in which the growth of credit influences economic growth in the sense that when credit grows, consumers can borrow and spend more, and enterprises can borrow and invest more. In Nigeria, commercial banks lends more to the private sector compared to public sector which is expected to spur economic well-being of the citizens, it is really baffling that such is not the case as against the expected connection between bank lending and economic growth. Empirical studies have shown that credit to the public sector is weak in generating growth within the economy because they are prone to waste and politically motivated programmers which may not deliver the best result to the populace (Tahir et al., 2015).

2.5. Theoretical Underpinnings

Bank credit contributes to economic growth in several ways. For example, credit is an important link in money transmission; it finances production, consumption, and capital formation, which in turn affect economic activity (Timsina, 2014). Theories and modelling have been advanced in the exploration of the nexus between financial development and economic growth for both developing and developed countries. Some these theories

include endogenous growth theory, neo-classical growth model, finance-led growth theory/supply leading hypothesis and demand following hypothesis among others. This work is anchored on the finance-led growth/supply leading hypothesis due to its assertion that financial development impacts positively on economic growth and development.

2.6. Endogenous Growth Theory

The endogenous growth is centred on the preposition that financial development impact positively on economic growth and development. For a country to achieve a desired level of economic growth and development, the financial system: banking and stock market should be developed to mobilize the needed finance. A financial system that is well functioning would successfully harness savings from households and efficiently allocate same to deficit unit, diversify risk to ease liquidity flow, reduce transaction cost and information asymmetry, and bestow an opportunity to sourcing finance via retained earnings and savings of individuals. The central argument of the endogenous growth theory is that finance generates an external effect on aggregate investment efficiency, which offsets the decrease in the marginal product of capital (Eschenbach, 2004). Empirical studies have confirmed the efficacy of this theory, for instance, the study by V. Bencivenga, Smith, and Starr (1995) reveals that financial institutions reduce liquidity risk to which savers are exposed by making financial assets tradable (stock markets) or by enabling depositors to withdraw cash before a project's maturity (banks).

2.7. Neo-Classical Growth Theory

Following the Harrod Domar's model of economic growth, Solow (1956) developed the neo-classical growth model and subsequently nicknamed the "Solow Model". The theory emphasised that accumulation of capital is the engine for economic growth and development. The nucleus of the neo-classical theory is on prices, outputs and income distribution in market unwavering by forces of demand and supply. A possible growth patterns is shown by using the variable of the ratio of capital to labour indicating that capital accumulation is consistent with the growth rate of the labour force (Mohd-Nor, 2015). From the assumption of this theory, individual's rationality enables them to maximize their utility or profit and emphasis placed on equilibrium, the interactions of consumers and firms in a free market should wield an equilibrium quantity and supply (Henning, 2008). Mohd-Nor (2015) stated that Romer (1990) established a one-sector neoclassical model with technological change, observes that growth is promoted, assisted by the technological change that arises from international investment decisions made by profit-maximizing agents in the world market integration.

2.8. Finance Led Growth Theory

The finance led growth theory is on the premises that financial sector development is a major stimulus for economic growth. The development of the financial sector will enable citizens and government mobilize needed fund necessary to achieve growth and development. Mohd-Nor (2015) acknowledged importance of well-functioning financial institutions in economic development has been extensively discussed in the literature more than decades ago since earlier works by Bagehot (1873), Schumpter (1911), Goldsmith (1969), McKinnon (1973) and Shaw (1973) despite contradictory contention from Robinson (1952) and Stein (1988) among others that financial sector development is not a determinant of economic development. Economists opposed to this theory believed that economic development influences financial sector, that is, the rate of economic development determines the level of development that would be achieved in the financial system. However, the bulk of empirical works on finance-growth nexus have upheld the significant impact of financial sector development on growth and development of the economy. (See (V. R. Bencivenga & Smith, 1991; Greenwood & Jovanovic, 1990; Levine, 1997; McKinnon, 1973; Shaw, 1973)).

2.9. Empirical Literatures

Oluitan (2012) assessed the significance of real bank credit in stimulating real output growth in the case of Nigeria. The study observes that credit Granger causes output. In testing the factors that mobilise credit, it finds that exports in general are negatively related to credit. However, while oil exports are negatively related to credit, non-oil export has positive relationship with credit. Credit is also positively linked to capital inflows and imports. Nwakanma et al. (2014) evaluated the nature of long-run relationship existing between bank credits to the private sector of Nigeria's economy and the nation's economic growth as well as the directions of prevailing causality between them from period 1981 and 2011. Applying Autoregressive Distributed Lag Bound (ARDL) and Granger Causality techniques, the results indicate significant long-run relationship between the study variables but without significant causality in any direction. Marshal et al. (2015) examined the impact of bank domestic credits on the economic growth of Nigeria using time series Nigerian data for the period 1980-2013. Credit to private sector, credit to government sector and contingent liability were used as proxy for bank domestic credit while gross domestic product represents economic growth. The relative statistics of the estimated model shows that credit to the private sector (CPS) and Credit to the government sector (CGS) positively and significantly correlate with GDP in the short run. The analysis revealed the

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existence of poor long run relationship between bank domestic credit indicators and gross domestic product in Nigeria.

Akujuobi and Nwezeaku (2015) determined the effect of bank lending activities on economic development in Nigeria, covering the period, 1980-2013. Applying the test for stationarity with the Ordinary Least Square (OLS), and Co-integration procedures, the results revealed a significant relationship between bank lending activities and economic development in Nigeria. Credit to the general commerce and production sectors were statistically significant as well as met the a priori expectation. Obamuyi et al. (2011) investigated the effect of bank lending and economic growth on the manufacturing output in Nigeria. Times series data covering a period of 36 years (1973-2009) were employed and tested with the co-integration and vector error correction model (VECM) techniques. The findings of the study show that manufacturing capacity utilization and bank lending rates significantly affect manufacturing output in Nigeria. However, the relationship between manufacturing output and economic growth could not be established in the country. Akpansung and Babalola (2010) ascertained relationship between banking sector credit and economic growth in Nigeria over the period 1970-2008. The causal links between the pairs of variables of interest were established using Granger causality test while a Two-Stage Least Squares (TSLS) estimation technique was used for the regression models. The results of Granger causality test show evidence of unidirectional causal relationship from GDP to private sector credit (PSC) and from industrial production index (IND) to GDP. Estimated regression models indicate that private sector credit impacts positively on economic growth over the period of coverage in this study. However, lending (interest) rate impedes economic growth.

Aurangzeb (2012) evaluated the contributions of banking sector in economic growth of Pakistan from the period of 1981 to 2010. Regression results indicate that deposits, investments, advances, profitability and interest earnings have significant positive impact on economic growth of Pakistan. The Granger-Causality test confirms the bidirectional causal relationship of deposits, advances and profitability with economic growth. On the other side a unidirectional causal relationship of investments and interest earnings with economic growth runs from investments and interest earnings to economic growth. Applying the identification strategy employed by Driscoll (2004) for the United States, Cappiello, Kadareja, Sørensen, and Protopapa (2010) provided empirical evidence for the existence of a bank lending channel of monetary policy transmission in the euro area. In addition, and in contrast to recent findings for the US, they found that in the euro area changes in the supply of credit, both in terms of volumes and in terms of credit standards applied on loans to enterprises, have significant effect on real economic activity. Ojeaga et al. (2014) determined the effect of bank lending on growth in Nigeria using a sample of data from 1989 to 2012. With quantile regression estimation method, it was found that commercial bank lending was having a negative effect on growth while institutions were not sufficiently protecting customers from the negative effect that often arise when banks liquidate. Central bank policies were found to be minimizing bank losses and helping to drive economic growth in general.

Timsina (2014) examined the impact of commercial bank credit to the private sector on the economic growth in Nepal from supply side perspectives. The study has applied Johansen co-integration approach and Error Correction Model using the time series data for the period of 1975-2013. The empirical results show that bank credit to the private sector has positive effects on the economic growth in Nepal only in the long run. Nevertheless, in the short run, it has been observed a feedback effect from economic growth to private sector credit. Emecheta and Ibe (2014) investigated the impact of bank credit on economic growth in Nigeria applying the reduced form of vector autoregressive (VAR) technique using time series data from 1960 to 2011. Current gross domestic product (GDP) is the dependent variable and proxy for economic growth while bank credit to the private sector (CPS) to GDP ratio and broad money (M2) to GDP ratio were proxies for financial indicator and financial depth respectively. A major finding was that there is a significant positive relationship between bank credit to the private sector, broad money and economic growth. Mamman and Hashim (2014) assessed the impact bank lending on economic growth in Nigeria for the period 1987 to 2012. This study relied purely on secondary data, and using multiple regression model, the study find out that bank lending accounts for about 82.6% variation in economic growth in Nigeria for the period studied.

Tahir et al. (2015) examined the association among bank credit to private sector and economic growth in Pakistan. Secondary data were collected from World Bank Indicator, ranging for the period 1973 to 2013. Co-integration VECUM and Granger Causality test were statistically used to test the variable relationship and causality effect of the variable. The findings of the study showed that bank credit had extensive relationship with economic progression; in short term the relationship was also significant. Regression analysis showed that there was adverse impact of bank credit on economic growth in Pakistan. Olowofeso et al. (2015) ascertained the impacts of private sector credit on economic growth in Nigeria using the Gregory and Hansen (1996) co-integration test. The method was applied to quarterly data spanning 2000:Q1 to 2014:Q4, while the fully modified ordinary least squares procedure was employed to estimate the model coefficients. They found a co-integrating relationship between output and its selected determinants, albeit, with a structural break in 2012Q1. Amongst others, findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was inhibiting growth. Makinde (2016) explored the implications of commercial bank loans on economic growth in Nigeria between

1986 and 2014. Using the Ordinary Least Square (OLS) multiple regression techniques; the study revealed that only the agricultural sector have being enjoying much of Bank credit and it has been making positive impact on the Gross Domestic products (GDP) while others like Mining and Quarrying, Manufacturing and the Building and Constructions sectors have not being getting much attention in terms of bank credit to spur development in that sector.

The intermediation function of commercial banks through mobilization and distribution of resources, if efficiently utilized, is capable of lowering the income disparity between the rich and the poor, improve standard of living/quality of life, reduce rate of unemployment, which in turn, increase growth and development. Despite the various reforms in the Nigerian banking system, the banking sector lending to private sector of the economy continue to rise notwithstanding the macroeconomic instabilities. All the empirical literature reviewed showed that bank lending has positive impact on economic development and growth except for a contrary result of Ojeaga et al. (2014). These literatures adopted various econometric tools such granger causality test, Johansen co-integration, vector error correction model and Gregory and Hansen (1996) co-integration test among others to make their conclusion.

The empirical study Marshal et al. (2015) reveals that commercial banks' lending to private and government sector positively and significantly correlate with GDP in the short run. The model of Marshal et al. (2015) was criticized solely on the ground that macroeconomic fundamentals such inflation and interest rate capable of deterring economic growth were not incorporated in the model. The explanatory of banks' lending only may be biased. Similarly, Nwakanma et al. (2014) indicated a significant long-run relationship between the study variables but without significant causality in any direction. Despite the fact that tenured bank credit products as well as enforcement of credit regularization contracts were recommended in order to strengthen the operations of banks in Nigeria and their expected roles in financing entrepreneurship, not controlling the effect of macroeconomic variable is a source of criticism.

3. Methodology

A time frame of thirty (30) years, from 1986 to 2015 was the scope of this study and data were sourced from Central Bank of Nigeria (CBN) statistical bulletin of 2015. The dependent variables are Real Gross Domestic Product (RGDP) and Index of Industrial Production (IIP). Credit to Private Sector (CPS) is the independent variable and surrogates for commercial banks' lending. To control for the probable effect of macroeconomic shock, Inflation (INF) and Bank Lending Rate (BLR) were included in model as control variables. This is to ensure that explanatory powers of credit to private and public sector will not be biased. A modified model of Timsina (2014) for a study in Nepal was adopted. The functional form of Timsina (2014) is expressed as:

$$LnRGDP = f(LnPSC, LnGEXP, LnIR) -------------------- 3.1$$

Evaluating the impact of commercial banks' lending on economic development via the selected measure of economic development, the two models were developed in its functional form as:

$$RGDP = f(CPS, BLR, INF) --------------------------- 3.2$$

$$IIP = f(CPS, BLR, INF) ---------------------------- 3.3$$

Econometrically transforming the models by introducing log to ensure equal numerical base of dependent and independent variable for easy interpretation of coefficient value, the following models were developed:

Model 1
$$LogRGDP_t = a_0 + a_1 LogCPS_t + a_2 LogBLR_t + a_3 LogINF_t + u_t --------- 3.4$$

Model 2
$$LogIIP_t = a_0 + a_1 LogCPS_t + a_2 LogBLR_t + a_3 LogINF_t + u_t --------- 3.5$$

Where:

$RGDP$ is real gross domestic product; IIP is index of industrial production; CPS is credit to private sector; BLR is banks' lending rate and INF is inflation rate. a_0 is constant coefficient, u is a random error term and t is the time trend; normally included in standard time-series specifications to account for the omitted variables in the model.

We expect based on theoretical consideration that credit to private sector should have positive relationship with gross domestic product and index of industrial production. Contrary, inflation and bank lending rate should negatively relate with gross domestic product and index of industrial production.

4. Discussion of Result
4.1. Graphical Trend in Variables
4.1.1. Real Gross Domestic Product

The Real Gross Domestic Product (RGDP) was ₦15,237.99 million in 1986, which had risen to ₦39,374.27 million by the end of 2010 to settle at ₦54,612.26 million. The RGDP has continued to appreciate from 2010 to 2014. From 1986 to 2000, as shown in Figure 4.1, the gross domestic product gradually rose from ₦15,237.99 million in 1986 to ₦23,688.28 million in 2000, an increase of over 95%. The real gross domestic product has been on steady rise from ₦25,267.54 million in 2001 to ₦69,023.93 million in 2015.
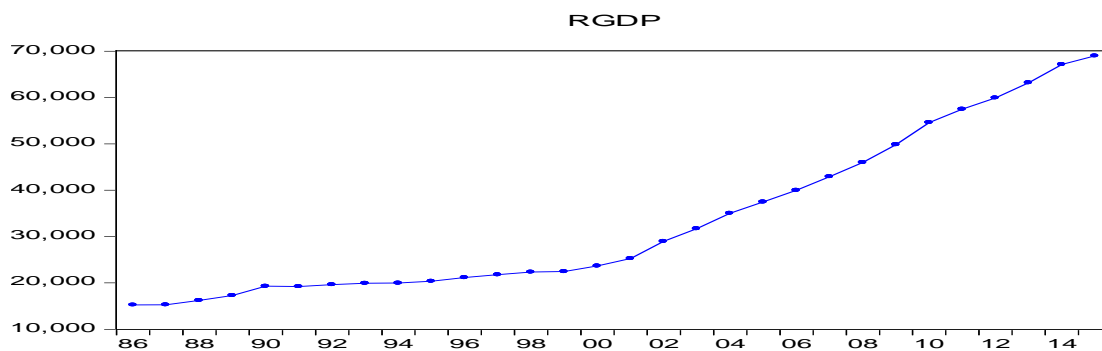

Figure–4.1. Trend in Real Gross Domestic Product 1986 to 2015.
Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 2015.

4.2. Index of Industrial Production

Index of industrial production in 2009 was 118.20, a rise of 0.51% from 117.60 in 2008. In 2012, index of industrial production increased by 3.44% to 136.70. As can be seen from Figure 4.2, from 1986 to 1993 index of industrial production rose tremendously but declined to 129.20 in 1994. In 2010, index of industrial production was 121.50, a rise of 2.72% compared to 118.20 in 2009.
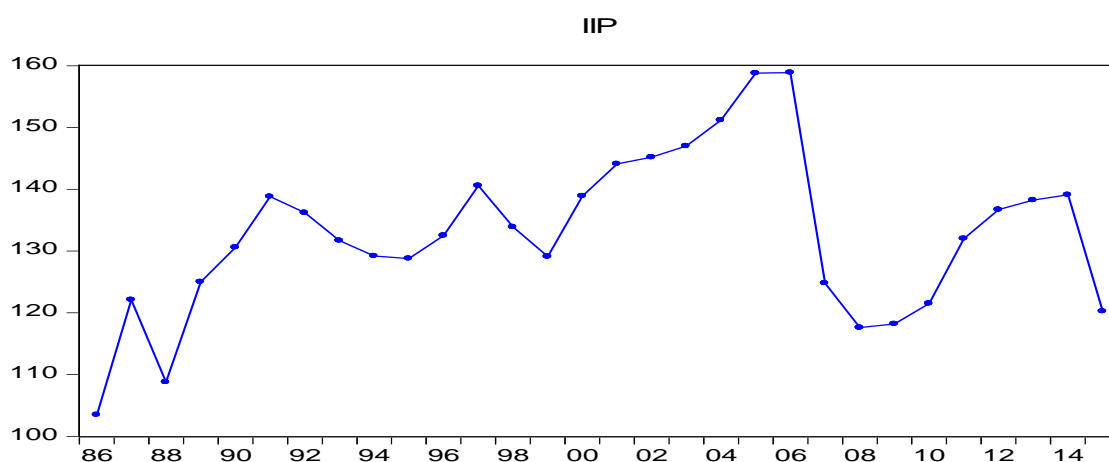
Figure–4.2. Trend in Index of Industrial Production 1986 to 2015.
Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 2015.

4.3. Credit to Private Sector

Commercial banks' lending to private sector in Nigeria has increased tremendously over the years. From ₦15,250 million in 1986, it rose to reach ₦316,210 million at the end of 1997 then continue to appreciate closing at ₦530,370 million in 2000. Between 2000 and 2015 money supply rose from ₦530,370 million to ₦18,674,150 million Figure 4.3 illustrates this changes in commercial banks' lending.

Figure–4.3. Trend in Credit to Private Sector 1986 to 2015.
Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 2015.

4.4. Bank Lending Rate

Figure 4.4 show that the trend in banks' lending rate during the period 1986 and 2015 changed considerably, changing from 10.50 to 16.77 an appreciation of about 37.39%. The banks' lending rate at the end of the year 2009 reached 18.99%, an increase of 20.27% from 2008, when it was 15.14%.
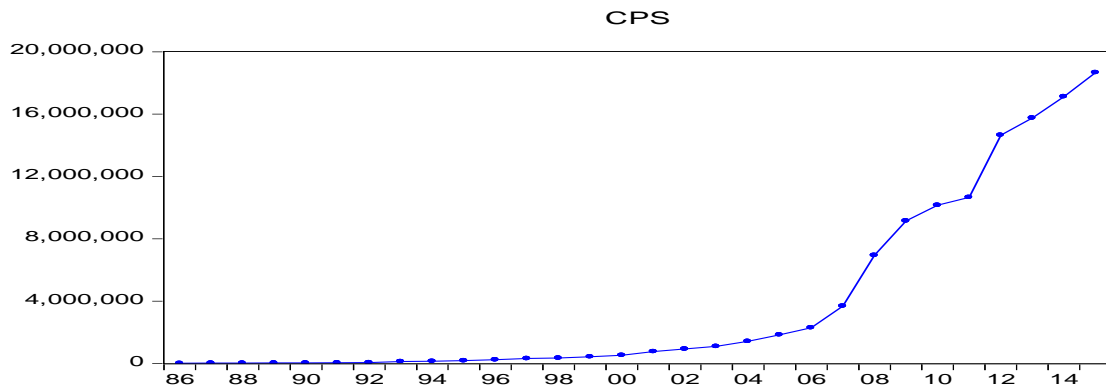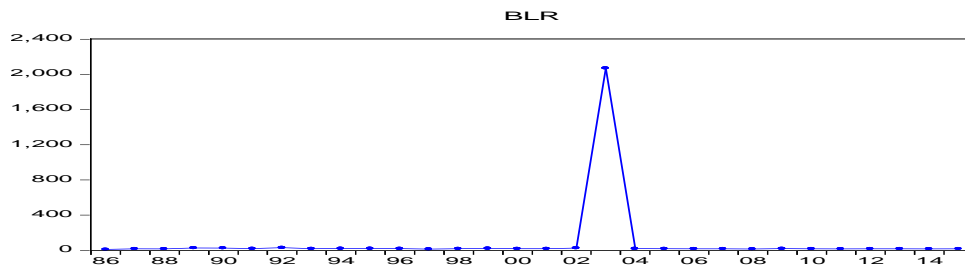

Figure–4.4. Trend in Banks' Lending Rate 1986 to 2015
Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 2015

4.5. Inflation

The inflation rate was 5.40% in 1986, which had risen to 11.80% at the end of 2010. The inflation rate has continued to decline from 2010 to 2015. From 1986 to 2015, as shown in Table 4.1 and Figure 4.5, inflation rate gradually rose from 5.40% in 1986 to 9.60 in 2015.
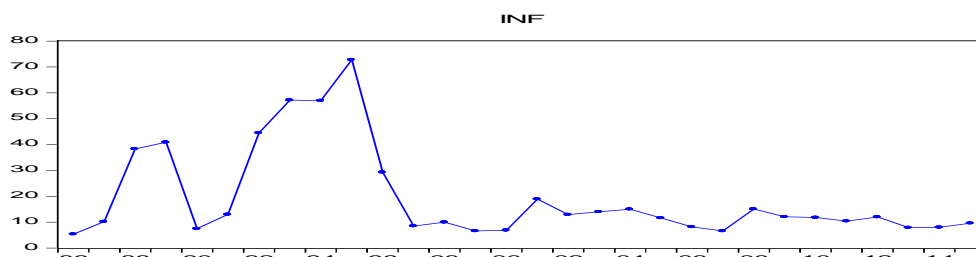
Figure–4.5. Trend in Inflation Rate 1986 to 2015
Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 2015

4.6. Descriptive Properties of Variables

Table 4.2 presents the descriptive properties of the variables applied in this study. The mean values of the RGDP, IIP, CPS, BLR and INF are 33416.67, 132.7763, 3922651, 87.23400 and 19.40700 as the median were divulged to be 24477.91, 132.2500, 2647665.0, 18.13 and 11.90 respectively. The maximum values of the variables are 69023.93, 158.90, 18674150, 2071 and 72.8 for RGDP, IIP, CPS, BLR and INF respectively. The minimum values are 15237.99 for RGDP, 103.50 for IIP, 15250.00 for CPS, 10.50 for BLR and 5.4 for INF. The variables' standard deviation are 17281.67 for RGDP, 12.94974 for IIP, 5929430 for CPS, 374.69 for BLR and 17.90 for INF. All the variables were positively skewed towards normality as evidenced by the positive values of the skewness statistic except for IIP. The Kurtosis value shows that all the variables are leptokurtic in nature except for IIP as evidenced by the less than 3 values of the Kurtosis statistic. The Jarque-Bera suggests that all the RGDP and IIP are not normally distributed as the p-values are insignificant at 5% level of significance.

Table–4.2. Descriptive Properties.

	RGDP	IIP	CPS	BLR	INF
Mean	33416.67	132.7763	3922651.	87.23400	19.40700
Median	24477.91	132.2500	647665.0	18.13500	11.90000
Maximum	69023.93	158.9000	18674150	2071.000	72.80000
Minimum	15237.99	103.5000	15250.00	10.50000	5.400000
Std. Dev.	17281.67	12.94974	5929430.	374.6935	17.90451
Skewness	0.784741	-0.029692	1.381955	5.198580	1.653485
Kurtosis	2.200290	2.988017	3.414309	28.02853	4.568514
Jarque-Bera	3.878510	0.004588	9.763556	918.1604	16.74535
Probability	0.143811	0.997709	0.007584	0.000000	0.000231
Sum	1002500.	3983.290	1.18E+08	2617.020	582.2100
Sum Sq. Dev.	8.66E+09	4863.176	1.02E+15	4071462.	9296.571
Observations	30	30	30	30	30

Source: Computer analysis using E-views 9.0.

4.7. Diagnostic Test Result
4.7.1. Serial Correlation LM Test

The essence of the serial correlation LM test is to test for the presence of autocorrelation in the model. The null hypothesis of LM test is that there is no serial correlation up lag order 2. The p-values of the Breusch-Godfrey serial correlation test in Table 4.3a are insignificant at 5%, an inference that the variables in the models are not serially correlated.

Table–4.3a. Breusch-Godfrey Serial Correlation LM Test.

Models	F-statistic	Prob. $F_{(2,22)}$
Model 1	0.458919	0.6379
Model 2	0.485947	0.6216

Source: Computer analysis using E-views 9.0.

4.8. Heteroskedasticity Test

Classical econometric assumption states that a model should be free from problem of heteroskedasticity. The probability of the Chq. statistic for the models are insignificant at 5% level of significance, suggesting that there is no heteroskedasticity in the models. Test of heteroscedascticity for the models is presented in Table 4.3b.

Table–4.3b. Heteroskedasticity Test.

Models	F-statistic	Prob. $F_{(4,24)}$
Model 1	0.752270	0.5663
Model 2	1.281865	0.3048

Source: Computer analysis using E-views 9.0.

4.9. Ramsey RESET Test

The essence was to ascertain if non-linear combinations of the independent variables have any power in explaining the dependent variable or not. If the dependent variable is explained by the non-linear combinations of the independent variables, the model is not well specified. The insignificant at 5% level of significance of p-values as in Table 4.3c shows that the models were well specified.

Table–4.3c. Ramsey RESET Test.

Models	Value	df	Probability
Model 1	2.322875	(5, 19)	0.0832
Model 2	0.103879	(1, 23)	0.7501

Source: Computer analysis using E-views 9.0.

4.10. Multicollinearity Test

The correlation between the independent variables is very low, that is, -0.33 observed for inflation and credit to private sector. This is inference that there is multi-collinearity between the independent variables. The correlation between commercial banks' lending and gross domestic product is positive while it is negative for index of industrial production. Table 4.3d summarises the correlation between the variables.

Table–4.3d. Correlation Matrix.

	RGDP	IIP	CPS	BLR	INF
RGDP	1.000000	0.086557	0.951756	-0.022047	-0.411737
IIP	0.086557	1.000000	-0.090405	0.209577	-0.144126
CPS	0.951756	-0.090405	1.000000	-0.093325	-0.337517
BLR	-0.022047	0.209577	-0.093325	1.000000	-0.053062
INF	-0.411737	-0.144126	-0.337517	-0.053062	1.000000

Source: Computer analysis using E-views 9.0.

4.11. Stationarity Test Result

Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) test were used to check for stationarity of data to ensure that the variables are from stationarity defect linked with most time series data. The ADF and PP results in Table 4.4a and Table 4.4b show that all the variables are stationary at first difference as such, inferences made from analysis will not be spurious.

Table-4.4a. ADF Test Result.

Variables	ADF Test Statistic	Test Critical Value at 1%	Test Critical Value at 5%	Order of Integration/Connotation
RGDP	-6.404592 (0.00)*	-2.653401	-1.953858	1(1)/Stationary
IIP	-4.942908 (0.00)*	-3.689194	-2.971853	1(1)/Stationary
CPS	-4.590698 (0.00)*	-2.653401	-1.953858	1(1)/Stationary
BLR	-8.977234 (0.00)*	-2.653401	-1.953858	1(1)/Stationary
INF	-2.235668 (0.02)**	-2.679735	-1.958088	1(1)/Stationary

Source: Computer analysis using E-views 9.0.

Table-4.4b. PP Test Result.

Variables	PP Test Statistic	Test Critical Value at 1%	Test Critical Value at 5%	Order of Integration/Connotation
RGDP	-6.767733 (0.00)*	-2.653401	-1.953858	1(1)/Stationary
IIP	-5.646319 (0.00)*	-2.650145	-1.953381	1(1)/Stationary
CPS	-11.83641 (0.00)*	-2.653401	-1.953858	1(1)/Stationary
BLR	-27.86177 (0.00)*	-2.650145	-1.953381	1(1)/Stationary
INF	-5.006486 (0.00)*	-2.650145	-1.953381	1(1)/Stationary

Source: Computer analysis using E-views 9.0.

4.12. OLS Regression

The relationship between commercial banks' lending and economic development was tested using OLS regression technique were the dependent variables were lagged for one year. The statistical criteria used in evaluating the regression result are coefficient of Adjusted R-squared, F-statistic and Durbin Watson statistic.

4.13. Commercial Banks' Lending and Real Gross Domestic Product

Table 4.5a depicts that commercial banks' lending reflected by credit to private sector has negative and statistically insignificant relationship with RGDP. Inflation rate was found to be insignificantly and negatively related with RGDP. On the other hand, banks' lending rate has positive insignificant relationship with RGDP. The co-efficient of the constant -1511.011 is an indication that if commercial banks' lending inclusive of banks' lending rate and inflation as control variables are held constant, RGDP would be ₦1, 511.01 million. A unit increase in credit to private sector would results to a corresponding ₦0.023 million reduction in b RGDP. A percentage increase in commercial banks' lending rate leads to ₦0.312 million factor increase in RGDP. On the contrary, a unit increase in inflation rate would lower RGDP by a factor ₦10.17 million.

The Adjusted R-squared reveals that 99.74% variation in RGDP was as a result of the joint fluctuation in the explanatory variables: credit to private sector, banks' lending rate and inflation rate. The significant value (5% significance level) of the F-statistic entails that commercial banks' lending inclusive of interest rate and inflation significantly explained that changes in RGDP within the period of the study. The Durbin Watson statistic of 1.56 is not far from 2.0, in addition to the serial correlation LM test in Table 4.3a unveils that the variables in the model are not serially correlated.

Table-4.5a. OLS Regression: Commercial Banks' Lending and RGDP.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1511.011	1091.252	-1.384659	0.1789
CPS	-0.000229	0.000115	-1.995437	0.0575
BLR	0.312560	0.478796	0.652804	0.5201
INF	-10.17156	11.39116	-0.892934	0.3808
R-squared	0.997440	Mean dependent var		34043.52
Adjusted R-squared	0.997013	S.D. dependent var		17236.97
S.E. of regression	942.0178	Akaike info criterion		16.68951
Sum squared resid	21297542	Schwarz criterion		16.92525
Log likelihood	-236.9979	Hannan-Quinn criter.		16.76334
F-statistic	2337.698	Durbin-Watson stat		1.567555
Prob (F-statistic)	0.000000			

Source: Computer analysis using E-views 9.0.

4.14. Commercial Banks' Lending and Index of Industrial Production

As can be seen in Table 4.5b, credit to private sector has negative and statistically insignificant relationship with IIP. Inflation rate was found to be insignificantly and negatively related with IIP while commercial banks' lending rate has positive insignificant relationship with IIP. The coefficient of the constant discloses that holding credit to private sector, commercial banks' lending rate and inflation rate constant, IIP would be 63.27. A unit increase in credit to private sector leads to 4.40 factor decrease in IIP. A percentage increase in commercial banks' lending rate rises IIP by 0.22. On the other hand, a unit increase in inflation would result to 13.19 reduction in IIP.

Table–4.5b. OLS Regression: Commercial Banks' Lending and IIP.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	63.27458	18.94699	3.339559	0.0027
CPS	-4.40E-07	3.12E-07	-1.413382	0.1704
BLR	0.002247	0.004625	0.485876	0.6315
INF	-0.131977	0.104730	-1.260157	0.2197
R-squared	0.499160	Mean dependent var		133.7859
Adjusted R-squared	0.415687	S.D. dependent var		11.91715
S.E. of regression	9.109515	Akaike info criterion		7.412102
Sum squared resid	1991.598	Schwarz criterion		7.647842
Log likelihood	-102.4755	Hannan-Quinn criter.		7.485933
F-statistic	5.979878	Durbin-Watson stat		1.669039
Prob (F-statistic)	0.001741			

Source: Computer analysis using E-views 9.0.

From the Adjusted R-square, commercial banks' lending controlled with banks' lending rate and inflation caused 41.57% changes in IIP. This statistically significant as evidenced by the F-statistic and P-value of 5.97 and 0.00 respectively. Although the Durbin Watson value of 1.66 is not quite far from 2.0, an indication that there is no autocorrelation in the model.

Table–4.6a. Johansen Co-integration for RGDP, CPS, BLR and INF.

Unrestricted Co-integration Rank Test (Trace) RGDP, CPS, BLR and INF				
Hypothesized Number of CE(s)	Eigen Value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.582157	58.95794	47.85613	0.0032
At most 1 *	0.475580	34.52376	29.79707	0.0133
At most 2 *	0.400620	16.45084	15.49471	0.0358
At most 3	0.072879	2.118781	3.841466	0.1455
Unrestricted Co-integration Rank Test (Maximum Eigenvalue) RGDP, CPS, BLR and INF				
Hypothesized Number of CE(s)	Eigen Value	Maximum Eigen Statistic	0.05 Critical Value	Prob.**
None	0.582157	24.43418	27.58434	0.1203
At most 1	0.475580	18.07292	21.13162	0.1271
At most 2*	0.400620	14.33205	14.26460	0.0488
At most 3	0.072879	2.118781	3.841466	0.1455

Trace test and Max-eigenvalue test indicate 3 and 1 co-integrating eqn(s) at the 0.05 level.

* denotes rejection of the hypothesis at the 0.05 level; **Mackinnon, Haug, and Michelis (1996) p-values.

4.15. Long Run Relationship

The ADF and PP test as shown in Table 4.4a and Table 4.4b show that the variables are from stationarity defect and the number of co-integrating equations can be determined. Table 4.6a and Table 4.6b present the results of the long run relationship conducted using the Johansen co-integration methodology. The long run test in Table 4.6a reveals that there is a long run relationship between commercial banking lending and economic growth. The trace and max-eigenvalue each indicate two (2) and one (1) co-integrating equations at 5% level of significance.

From result in Table 4.6b, the trace test and Max-eigenvalue test each show the presence of two (2) co-integrating equations at the 5% level of significance in line with Mackinnon et al. (1996) p-values. The result implies that commercial banks' lending and index of industrial production are not co-integrated in the long run.

Table–4.6b. Johansen Co-integration for IIP, CPS, BLR and INF.

Unrestricted Co-integration Rank Test (Trace) IIP, CPS, BLR and INF				
Hypothesized Number of CE(s)	Eigen Value	Trace Statistic	0.05 Critical Value	Prob.**
None	0.530937	45.56418	47.85613	0.0808
At most 1	0.381541	24.36769	29.79707	0.1853
At most 2	0.205816	10.91299	15.49471	0.2169
At most 3*	0.147268	4.460669	3.841466	0.0347
Unrestricted Co-integration Rank Test (Maximum Eigenvalue) IIP, CPS, BLR and INF				
Hypothesized Number of CE(s)	Eigen Value	Maximum Eigen Statistic	0.05 Critical Value	Prob.**
None	0.530937	21.19649	27.58434	0.2645
At most 1	0.381541	13.45470	21.13162	0.4113
At most 2	0.205816	6.452325	14.26460	0.5559
At most 3*	0.147268	4.460669	3.841466	0.0347

Trace test and Max-eigenvalue test indicate no co-integrating eqn(s) at the 0.05 level.
* denotes rejection of the hypothesis at the 0.05 level; **Mackinnon et al. (1996) p-values.

4.16. Short Run Dynamics

The short run adjustment was checked with the aid of the Vector Error Correction Model (VECM) and results presented in Table 4.7a and Table 4.7b. The error correction model in Table 4.7a showed the expected negative sign inferring that there is a predisposition by the model to correct and move towards the equilibrium path owing disequilibrium witnessed in each period. Only 1.59% of the error generated in the preceding year is corrected in the present year. For index of industrial production, Table 4.7b also indicated that the error correction model depicted the expected negative sign. We observed that 78.81 of the error generated in the previous year is corrected in the current year. VECM results in Table 4.7a and Table 4.7b further reveal that for achievement of long term growth and development of the Nigerian economy, commercial banks' lending is very pivotal. This is deduced by the positive coefficient of credit to private sector for both gross domestic and product and index of industrial production as measurement of economic development while the high interest rate charged by commercial banks' remain a threat to the positive influence of banks' credit to the economy.

Table–4.7a. Vector Error Correction Model for RGDP.

Variables	Coefficient	Standard Error	T-Statistic
C	472.3008	332.363	1.42104
D(RGDP(-1))	0.439884	0.26174	1.68063
D(RGDP (-2))	0.133471	0.24240	0.55062
D(CPS(-1))	0.000367	0.00023	1.56845
D(CPS (-2))	0.000290	0.00025	1.16138
D(BLR(-1))	−0.083765	0.76131	−0.11003
D(BLR(-2))	−0.134702	0.51099	−0.26361
D(INF(-1))	12.75798	12.2702	1.03975
D(INF(-2))	6.326100	12.8645	0.49175
ECM (-1)	−0.015935	0.02849	−0.55933

Source: Computer analysis using E-views 9.0.

Table–4.7b. Vector Error Correction Model for IIP.

Variables	Coefficient	Standard Error	T-Statistic
C	−0.428013	1.75822	−0.24344
D(IIP(-1))	0.363898	0.16175	2.24980
D(IIP (-2))	0.218454	0.15736	1.38822
D(CPS(-1))	9.11E-08	1.7E-06	0.05498
D(CPS (-2))	4.68E-07	1.6E-06	0.30027
D(BLR(-1))	−0.022714	0.00524	−4.33689
D(BLR(-2))	−0.010504	0.00371	−2.83152
D(INF(-1))	−0.063245	0.09484	−0.66688
D(INF(-2))	0.081973	0.09514	0.86165
ECM (-1)	−0.788104	0.14918	−5.28306

Source: Computer analysis using E-views 9.0.

4.17. Granger Causality Impact Test

To determine the impact of commercial banks' lending on gross domestic product, the granger causality test was employed and the results presented in Table 4.8a and Table 4.8b. The result in Table 4.8b indicates that there is bidirectional relationship between commercial banks' lending and gross domestic product as causality flows from credit to private sector to real gross domestic product and from real gross domestic product back to credit to private sector at 5% level of significance. This result shows that commercial banks' lending has significant impact on real GDP and real GDP on the other hand, has significant impact on credit to private sector.

Table–4.8a. Granger Causality Result for RGDP, CPS, BLR and INF.

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
CPS does not Granger Cause RGDP	29	5.82114	0.0232	Causality
RGDP does not Granger Cause CPS		12.3751	0.0016	Causality
BLR does not Granger Cause RGDP	29	2.33629	0.1385	No Causality
RGDP does not Granger Cause BLR		0.04833	0.8277	No Causality
INF does not Granger Cause RGDP	29	0.35165	0.5583	No Causality
RGDP does not Granger Cause INF		1.73931	0.1987	No Causality

Source: Computer analysis using E-views 9.0.

From Table 4.8b, there is no unidirectional or bidirectional relationship between commercial banks' lending and index of industrial production as causality does not flow from commercial banks' lending to index of industrial production neither does it flow from index of industrial production to commercial banks' lending at 5% level of significance. This suggests that commercial banks' lending has no significant impact on index of industrial production in Nigeria.

Table–4.8b. Granger Causality Result for IIP, CPS, BLR and INF.

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
CPS does not Granger Cause IIP	29	0.84842	0.3655	No Causality
IIP does not Granger Cause CPS		0.00259	0.9598	No Causality
BLR does not Granger Cause IIP	29	1.08386	0.3074	No Causality
IIP does not Granger Cause BLR		0.95316	0.3379	No Causality
INF does not Granger Cause IIP	29	0.05349	0.8189	No Causality
IIP does not Granger Cause INF		0.20976	0.6508	No Causality

Source: Computer analysis using E-views 9.0.

4.18. Test of Hypotheses

Decision Criteria: If the p-value of F-statistic in granger causality test is less than 0.05, the null hypothesis is rejected. On the other hand, if the p-value of F-statistic granger causality test is greater than 0.05, the null hypothesis is accepted.

Hypothesis One
Restatement of Research Hypothesis
H_0: Commercial banks' lending has no significant impacts on Nigeria's gross domestic product.

The p-value of 0.0232 in Table 4.8a is less than 0.05. To this effect, the null hypothesis that commercial banks' lending has no significant impacts on Nigeria's gross domestic product is rejected that is, the null hypothesis that commercial banks' lending has no significant impacts on Nigeria's gross domestic product is rejected.

Hypothesis Two
Restatement of Research Hypothesis
H_0: Commercial banks' lending has no significant on Nigeria's index of industrial production.

From Table 4.8b, the p-value of 0.3655 is greater than 0.05 and against hypothesis decision criteria. Consequently, the null hypothesis that commercial banks' lending has no significant on Nigeria's index of industrial production would not be rejected and the alternative hypothesis that commercial banks' lending has significant on Nigeria's index of industrial production rejected.

4.19. Discussion of Findings

The negative but insignificant relationship between commercial banks' lending and gross domestic product and index of industrial production as shown in Table 4.5a and Table 4.5b is against the a priori expectation. This would be that banks' centres the loans and advances to oil and gas sector at the detriment of manufacturing sector and other sector which reduces their productive capacity, thereby threatening increases in GDP. This result supports the findings of Ojeaga et al. (2014) and Tahir et al. (2015) on the negative

relationship between credit to private sector and real gross domestic product in Nigeria and Pakistan respectively. On the contrary, it refutes the empirical findings of Nwakanma et al. (2014), Marshal et al. (2015) and Timsina (2014) who have established a positive nexus between credit to private sector and RGDP. The granger causality result in the Table 4.7a also agrees with Akpansung and Babalola (2010) and Korkmaz (2015) that there is a unidirectional relationship flowing from RGDP to private sector credit. The negative relationship observed for index of industrial production and credit to private sector in line with Makinde (2016) who stated that industries are not getting the much needed loans to spur economic growth in Nigeria. The negative effect of inflation on economic development also support the study of Olowofeso et al. (2015).

5. Conclusion and Policy Implications

The impact of commercial banks' lending on economic development of Nigeria from 1986 to 2015 was ascertained in study. From the analysis performed, commercial banks' lending has significant impact on gross domestic product of Nigeria notwithstanding the negative but insignificant relationship between commercial banks' lending and gross domestic product. Commercial banks' lending has no significant impact on Nigeria's index of industrial production, however, the relationship between them was found to be negative but insignificant. The financial intermediation function of the banking institutions is critical to achieving a desired and sustained level of economic development and growth. Nigeria is a developing country and needs a lot of finance to provide basic infrastructural facilities for the improvement in the quality of life of her citizen. From the result of this study which evidenced the significant impact of commercial banks' lending on economic growth, it is concluded that finance is great catalyst for development and growth of Nigeria's economy.

In lieu of the findings of this study, the following recommendations are pointed out for consideration my decision makers:

- The Central Bank of Nigeria should implement regulation to stop banks from centring loans and advances to a particular sector which is, oil and gas to improve credit flow to other strategic sectors, especially agriculture and industries to increase their contributions to gross domestic product of Nigeria.
- The Central Bank of Nigeria should through monetary policy complement fiscal policies of the government to reduce the level of inflation in country, having regard to its negative effect on index of industrial production.

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