

Impact of Commercial Bank Loans on Investment Financing in Nigeria

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Abstract

This study examines the impact of commercial bank loans on the investment financing in Nigeria. The study specifically assesses the extent to which commercial bank loans and lending rate influence investment in Nigeria. Ex-post-facto research design was adopted for the study. Time series data were collected from CBN statistical bulletin for the period; 2000 – 2015 using the desk survey method. The data were analyzed using the ordinary least squares multiple regression statistical technique. Results from the analysis reviewed that there exists a positive and significant relationship between commercial bank loans and investment finance in Nigeria. It was also discovered that lending rate had a positive impact on investment in Nigeria. The study recommends that monetary authorities should regulate the lending rate of commercial banks to enable businesses to assess loans and advances required to increase productivity and expansion. Again, there is need to increase business funding by reducing the requirements for assessing loans and advances from commercial banks. Banks should actively monitor the loans granted to businesses as to avoid diversion of funds to unproductive ventures.

Key Words: Commercial Bank Loans, Investment Financing, Lending Rate

1.0 Introduction

The roles played by commercial banks in financing investments in Nigeria cannot be overemphasized. The primary role in investment financing is credit extension. Credit has been defined by Okereke (2003) as fund based and non-fund based activities of banks extended to needy economy units that expose them to risk of financial losses of varying degree and at a cost called interest rate. Interest rate is a macroeconomic indicator of availability of fund for investment financing to foster growth. It is the rate at which money is lent and borrowed that determines the cost and availability of credit. If the interest rate is too high, the cost of borrowing goes up, resulting in high cost of investment and consequently poor yields (Dunmade, 2012). In a regulated economy, interest rate is always benchmarked by government to foster economy prosperity, through fiscal and monetary policies. Monetary regulators often pursue policies that ensure that adequate investments are financed by banks to grow the economy, create jobs, income and increase GDP (Nwidobie, 2013).

Investment could be defined as the sacrifice of current consumption for future benefits. It could be centered on the expansion, acquisition, modernization or replacement of industrial equipments or assets. It could take the form of sale of a division or business, research and development (R & D). Advertisement campaigns and changes in sales and distribution channels (Pandey, 2009). Investment could also involve a commitment of financial resources into the equity or debt of a firm with the hope of earning a return (either in form of dividend or interest) at a future date. Investment acts as a catalyst that accelerates the pace of structural transformation and diversification of the economy, thus enabling a country to utilize its factor endowments and to depend less on foreign supply of finished goods or raw materials (Adedrian & Obasan, 2010). Investments also enhances capital formation and paves way for technological advancement, skill development, capacity utilization and manpower development through an effective linkage among various productive activities (Toby & Peterside, 2014).

In view of the important benefits of investments several policy efforts have been made in order to maintain a friendly investment condition in Nigeria. Such policies include structural adjustment programme of 1986 and its privatization exercise, the industrial policy of 1989 which welcomed investors to the industrial section of Nigeria, the deregulation of the Nigerian economy, the provision of tax relief and other incentives to investors and owners of equity in all industries, the signing of the bilateral investment treaties and double taxation agreement, the promulgation and subsequent adoption of the export processing zone decree of 1991 and the establishment of the

Nigerian investment promotion commission (NIPC) through decree 16 of 1995n (Ndem, Okoronkwo & Nwamuo, 2014, Oladipo, 2013, and Uwubanmwun & Ajao, 2012). Others include the encouragement of commercial banks to channel some proportion of its loanable funds to the primary sectors of the economy. This study is therefore necessary to investigate the impact of commercial banks loans on investment financing in Nigeria.

Commercial banks mobilize short term transitory deposits from depositors to finance investment activities which always have long term duration. This creates a lacuna and a mismatch of funds needed by investors. There is this accusation that commercial banks often charge arbitrary rates on credits provided to investors in Nigeria. This situation which has the capacity to reduce the return and profitability of investments is a disincentive to invest in Nigeria. There is a gap between bank interest and what investors wanted. The problem is compounded by the undeveloped nature of the Nigerian financial markets and the high risk of doing business in Nigeria. This study is therefore meant to investigate the extent to which commercial bank financing impact on investments in Nigeria. This study is set to examine the extent to which commercial banks loans impact on investment financing in Nigeria.

2.0 Literature Review

This study is anchored on the classical interest rate theory. This theory according to Adebayo (1996) cannot be ascribed to any one single writer belonging to the classical school. Following Adam Smith, the classical writers being interested in those fundamental forces which determined the long-term interest rate, disregarded those factors of temporary and secondary nature which characterized the short-run disequilibrium situations. However it is widely accepted that the theory was propounded by Pandey (2008) and Arestics, Demetriades & Luinte (2001) and this theory is known as the demand and supply theory of savings. The theory states that the rate of interest is determined by the supply and demand of capital. The supply of capital is governed by time preference and the demand for capital is determined by the expected productivity of capital. The time and preference are dependents on savings. According to Adebayo (1996) the demand for capital consists of the demand for productive and consumptive purpose. Capital is demanded by the investors because it is productive. But the productivity of capital is subject to the law of variable proportions (additional units of capital are not productive as their earlier units).

However, the supply of capital according to Jhingan (2001) depends upon savings rather upon the will to save and the power to save of the community. Some people save irrespective of the rate. They would continue to save even if the rate of interest were zero. There are others who save because the current rate of interest induces them to save and reduce when the rates are low. The higher the rate of interest, the larger the community savings and more will be the supply of fund. The supply curve of capital or the savings curve moves upward to the right. There is general agreement that, in all countries, the process of economic growth and investment/capital formation is closely interconnected. Both neo-classical and Marxist economists have placed main emphasis on capital accumulation as the engine of economic growth. An important use of capital is to increase the production of capital intensive goods. The consumption of such goods generally increases with the growth of income through which capital accumulation promotes growth of income (Subdrum, 1993). All growth models focus on capital as one of the two central parameters in determining the rate of economic growth. An increase in the capital stock certainly needed to promote growth of production. According to World Bank (1989), GDP growth is higher for those countries, which have relatively higher investment/GDP ratio.

Generally speaking, investment refers to all economic activity which involves the use of resources to produce goods and services. Investment in infrastructure is particularly important for the development of less developed countries (LDCs), because infrastructure makes it possible for producers to use modern technology and by introducing modern technology to producers, infrastructure expansion directly stimulates productive activities. Investment in education and training produces skilled and more productive labour. Investment in agricultural research and extension services improves and facilitates the dissemination of the results of scientific researches that in turn increases production. Investment in human capital raises the value of parent time and cost of raising children. An increase in the cost of raising children decrease fertility and increases desired saving per person, which in turn raises the per capital growth rate (Barr, 1991).

In the general literature on economic development, writers have emphasized the importance of investment/capital formation in the process of development. In view of the importance of the subject, many empirical studies have been conducted to assess the role of investment/capital formation in economic growth. In his paper Anderson (1990), tries to find the role of investment in economic growth and variable representing the rate, allocation and efficiency of

investment. His analysis shows that investment plays greater role in a country's growth if it is used efficiently to increase the output. On the other hand if investment is made inefficiently it results in lower rate of growth of output. Blomstorm (1996) in their analysis of fixed investment and economic growth used Granger-Sims Causality framework for 101 countries. Their findings show that growth has more causal effect on subsequent capital formation rather than capital formation on subsequent growth and fixed investment does not have a key role in economic growth.

Ezeoha (2007) studied the role of capital formation in China's economy as well as in the five major sectors; agriculture, industry, construction, transportation and commerce. He found that the rate of return to capital in 1980 as 0.16, 0.20, 0.17, 0.26, 0.04 and 0.02 for aggregate economy, agriculture, industry, construction, transportation and commerce respectively. His analysis shows that from 1952 to 1985 China's aggregate income grew by an average rate of 0.06 and capital formation in the economy grew at an average rate of 0.045. Jones (1993) used a simple growth model to test the effects of private and public investment separately on economic growth for 24 developing countries. Their findings show that private and public investments have different effects on the long-run rate of economic growth. Private and public investment plays larger and more important role in economy's growth than public investment. Demircuc-kunt & Levine (1996) studied the effects of domestic capital formation and foreign assistance on the rate of economic growth for 58 developing countries. Their results do not show any great effects of domestic capital formation and foreign assistance on per capita rate of growth during the years of 1970-1980. Despite the differences in methodologies and sectors of investment emphasized, Demircuc-kunt and Levine, Jones, Ezeoha and Luninted seem generally agreed on the importance of investment in economic growth.

2.1 Capital Investment and Formation

The Keynesians termed investment as additions to capital which enables increase in production and purchase of capital goods (Jhingan, 2003). An investment is the purchase of goods that are not consumed today but are used in the future to create further capital (wealth). Investment can also be referred to as the production of capital goods (Alade, Ajayi, Enendu & Idowu, 2003). Investment in this form is an addition to real capital and capital stock in the economy.

Though investment in finance is the acquisition of financial assets for earning returns (Stiglitz, 1993), it does not directly qualify for capital formation. Investment can be divided into autonomous and induced investments. Autonomous investment is service based and not induced by demand as it is not influenced by immediate returns while induced investment is largely profit motivated. Autonomous investment is in the purview of public sector and therefore propelled by the government. The investment that leads to capital formation and increase productive capacity of the economy is the most stressed and significant (Malinvaud, 1982 and Akinsulire, 1989). Most autonomous investments end up increasing capital formation in the economy. Capital accumulation or formation refers to the process of amassing or stocking of assets of value, the increase in wealth or the creation of further wealth. Capital formation can be differentiated from savings because accumulation deals with the increase in stock of needed real investments and not all savings are necessarily invested. Recent literature has confused investment with capital formation. Investment can be in financial assets, human (capital) development, real assets that can be productive or unproductive. The increase in investment through non-financial assets has been held to increase value to the economy and the increase in the gross domestic product through further increase in employment.

Real domestic investment is expenditure made to increase the total capital stock in the economy. This is done by acquiring further capital-producing assets and assets that can generate income within the domestic economy. Physical assets particularly add to the total capital stock. Boosting economic development requires higher rates of economic growth than savings can provide. Part of the finance for investment is provided by the corporate sector, bank loans and households' savings make up the other part. With this, savings is no longer a constraint to investment demand. While short term investment term investments are highly encouraged by external sources of fund, long-term investment are more domestically driven. This is one of the reasons why aid is less effective in the long run. With lower rates of interest, asset values tend to be on the upward swing which invariably represents the discounted value of such assets thereby increasing the rate of acquisition and investment in such assets increases aggregate demand. Investment therefore is not constrained by aggregate savings but more by domestic interest rates. Therefore, the new equation of investment is: $\text{Investment} = (\text{Savings}) + (\text{newly created money available to Deposit Money Banks})$. Attempts at reducing expenditure have affected investment rates and had led to poor and sluggish growth and eventually affecting savings performance (Ayahi & Ojo, 1981).

The components of the Nigerian capital formation as analyzed by the National Bureau of statistics (NBS. 2011) comprises of both tangible and intangible stocks. The intangibles are the soft assets, and increases or improvements on them. They are also known as the non produced assets that eventually add up to increases in productive capability of the country. The statistics further states that the increase in capital formation in the country over the past year — 2010, was merely ₦1 billion (about \$6.3 million) has been propelled by capital equipments imports by firms involved in crude oil exploration and exploitation. This is worrisome, though nobody seems to care about the general welfare of the population.

The basis of the discussion above can be seen in the provision of infrastructure in the economy with autonomous investment which is more government propelled and powered. The relationship between physical investment and GDP is considered the most important of the factors antecedent to growth (Levine and Renelt. 1992). Anderson (1990) mentions the irreducible role of the government in the process of governance and public financial management. The government as an economic unit has not been helpful to domestic investment in the country and with the direction of its investments over the years. Where the government has made investment, it is in projects that do not crowd in other investments though it might have borrowed from the financial system to commit to such investment. The contention is that the government should provide necessary infrastructure for the enhancement of the life of individual members of the society and encourage private entrepreneurship, which would then pave the way for private entrepreneurs venturing successfully into various production outlets.

Net accumulation of capital assets as represented from various sources is often referred to as fixed capital formation as purchased by the three economic units of government, firms and households. It is the creation or expansion, through savings, of capital or of producer's good/buildings, machinery, equipment that produce other goods and services, the result being economic expansion (Barron's Educational Series, 2006, 2007), defines it as the total change in the value of fixed assets in the economy in addition to fixed stocks (or Gross Domestic Investment). While gross fixed capital formation is the expenditure undertaken on fixed assets either for replacing or adding to the stocks, it refers to the increase in the fixed capital stocks of the capital formed. Governments by their autonomous investment influence the direction of other investment by crowding in other investment as desired. Ezeoha (2007) study concludes that long term capital formation in Nigeria were not majorly sourced from the capital market as the above result shows the marginal contribution of Market Capitalization and New Issues to Gross Fixed Capital Formation. Though, it is unarguable that when investors take position for profit, it can affect the level of wealth which can then be used to build private capital. This result is in line with the findings of Arestia, Demetriades & Luinted (2001) where he concludes that there exist no meaningful relationship between stock market capitalization and gross fixed capital formation.

The realization of the above facts and the near difficulty to deliberately form capital and aggregate stock in most countries informed the World Bank (1994) to encourage the use of funded contributions to provide for pension rather than the then commonplace pay-as-go system which seem to constrict funding of firms. Its advantages are numerous as the financial market further develops and is deepened by its introduction (Perry. 1996). Most countries seem to have heeded the advice though the transition costs have been enormous and expensive for some countries to bear. Funds aggregated by the various pension funds can be used to improve infrastructure by the government, through the public, private partnership route and by the government using part of the funds as guarantee for borrowed funds. The advantages are numerous and the methods cannot be ignored as it improves the savings environment significantly

The above analysis bring to the fore the importance of, and the role of savings in the national development in general and capital formation in particular. Capital formation requires huge outlay at ever starting point which could be difficult to aggregate without external financings sources. Ezeoha (2007) adopts the scarcely-used Harrod-Domar model in a cointegration technique to test the impact of capital formation on economic growth. The paper finds that the impact is significant and that the main driver of capital formation has been the savings rate. It recommends the use of savings as a major driving force to encourage the formation of capital in the economy.

3.0 Methodology

The ex-post facto research design was adopted for this study because the events studied had already taken place. The study collected secondary data for the period 2000 - 2015 form CBN statistical bulletin, textbooks, journals and other relevant publications.

The study applied the ordinary least squares multiple regression analytical technique and investment proxied by gross fixed capital formation. The model is presented thus:

$$GFCF = f(CBC,LR)$$

$$\text{LogGFCF} = \beta_0 + \beta_1 \log \text{CBC} + \beta_2 \log \text{LR} + \epsilon_t \text{-----(1)}$$

Where:

- GFCF = Gross Fixed Capital Formation
- β_0 = Regression Constant
- β_1 & β_2 = Regression Parameters
- CBC = Commercial Bank Credit
- LR = Lending Rate

4.0 Data Analysis and Discussion of Results

The time series data used for this study is subjected to unit root test prior use. This became necessary in order to ascertain the stationarity properties of the variables used for the study.

4.1 Unit Root Test

The Dickey-Fuller test is used to determine if a variable is stationary. To remedy the problem of autocorrelation in the basic DF test, the test can be augmented by adding various lagged dependent variables. This would produce the following test:

$$\Delta y_t = (p-1)y_{t-1} + \alpha_i \sum_{k=0}^n \Delta y_{t-k} + \mu_t \text{ (2)}$$

The correct value for number of lags can be determined by reference to a commonly produced information criteria such as the Akaike criteria or Schwarz-Bayesian criteria. The aim is to maximize the amount of information. The ADF test can also include a drift (constant) and time trend.

Table 1: Unit Root Test

Variable	Order of Acceptance	
	First difference	I(1)
Gross fixed cap.	-5.048764	I(1)
Commercial banks credit	-4.156131	I(1)
Lending rate	-4.721296	I(1)
Critical values: 1%	-4.004425	
5%	-3.098896	
10%	-2.690439	

All the variables used for the are integrated of order I(1) variables at 95% level. The unit root results necessitated the applications of the ordinary least squares (OLS) approach.

Regression result of the impact of commercial bank loans on investment financing in Nigeria

Table 2: Regression Result of the GFCF Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CBC	1.074719	0.127210	8.448368	0.0000***
LR	7.99E-05	0.044134	0.001811	0.9986
C	0.462829	1.410343	0.328168	0.7480
R-squared	0.886300			
Adjusted R-squared	0.868807			
F-statistic	50.66787***			
Prob(F-statistic)	0.000001			
Durbin-Watson stat	1.858552			

Source: E-views 9 Computation, 2017. Note: *** stand for 1% level of significance.

From the result above it is observed that commercial bank credit has a positive and significant impact on gross fixed capital formation (investment) in Nigeria. The coefficient of Log(CBC) is 1.074719. This implies that the higher the loans the higher the investment and vice versa. If other factors are held constant, one per cent increase in commercial bank credit will led to ₦1.075billion increases in investment in Nigeria. The result also shows that lending rate has no impact on investment.

The result shows that lending rate is insignificant at 5 per cent level while commercial bank loan is highly significant at 5 per cent level. The model is highly significant, evidenced by the calculated F-statistics value of 50.668.

The goodness of fit of the model as indicated by the R^2 and R^2 -adjusted values of 0.8863 and 0.8688 respectively shows that the model fits the data well. Particularly, the R^2 -adjusted value of 0.8688 shows that about 86.88 per cent of the total variations in the Gross fixed capital formation has been jointly explained by the independent variables. From the results, the DW statistic (1.8585) is approximately 2 which is within the acceptable region. This shows that there was no serial correlation in the model.

4.2 Discussion of Findings

From the result and the analysis it is clear that the commercial bank loan exert significant positive impact on investment financing in Nigeria. This means that a one per cent increase in commercial bank credit led to ₦1.075billion increase in investment in Nigeria. This finding is in agreement with the finding of Soyibo and Adekanye (1991) who posit that commercial bank credit finances the working capital needs of business in the private sector to enable firms to finance wage payments, the purchase of raw materials and spare parts for machinery and equipment, or the storage or stocks or goods until they are sold. The result also shows a positive but insignificant relationship between lending rate and fixed capital formation. This means that an increase in lending rate leads to a less than proportionate increase in investment finance in Nigeria. Specifically, a one per cent increase in lending rate led to a small increase in investment finance. This finding is in line with Uremadu (2000) who posited that higher interest rate charge discourages borrowing, and reduces the ability of businesses to finance their operations.

5.0 Summary of Finding

This research study was carried out to evaluate the impact of commercial banks' loan on investment financing in Nigeria. In order to validate the work, theoretical and empirical literature relevant to the subject matter were reviewed. The Ordinary Least Squares (OLS) was adopted to examine the impact of lending rate and commercial bank loans on gross fixed capital formation. Consequently, the following findings were made.

- (i) Commercial bank loans and advances have positive and significant relationship with the investment financing in Nigeria:
- (ii) Lending rate has a positive but insignificant impact on investment finance in Nigeria.

5.1 Conclusion

This study examined the impact of commercial banks loan on investment financing in Nigeria. From the findings of the study, it is obvious that commercial bank loans and advances is very effective in enhancing investment finance in Nigeria. However, commercial bank lending rate has insignificant influenced on gross fixed capital formation. Based on these findings, we conclude that commercial bank finances are one of the most important ingredients needed to enhance investment in Nigeria.

5.2 Recommendations

Based on the findings of this study, the following recommendations were made;

- (i) The monetary authorities should regulate the lending rate of commercial banks to a level that it can significantly impact investment in Nigeria. This will enable business to access the loans and advances of commercial banks to increase productivity and expansion.
- (ii) There is need to increase funding to business through reducing the requirements for accessing loans and advances from commercial banks.

- (iii) Banks should also monitor the loans granted to businesses to avoid diversion of funds to unproductive ventures.

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