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An Analysis of Commercial Banks' Credit on Economic Growth in Nigeria

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Abstract: The objective of this study is to analyze the impact of the commercial banks credit on economic growth in Nigeria from 1992 to 2012. In order to examine the role of commercial bank credit to the economy, the commercial bank credit to the private sector of the economy is used to estimate its impact on Nigeria's economic growth, which is proxy by gross domestic product. Using the ordinary least square it was found that the commercial bank credit has significant effect on the economic growth in Nigerian. As this is a good achievement, it requires more efforts to maintain and sustain it. Inline with that the following recommendation were made to that effect: better and stronger credit culture should be promoted and sustained; there should be strong and comprehensive legal framework that will continue to aid in monitoring the performance of credit to private sector and recovery debts owed to banks; bank should share among themselves information on bad debt; and preferred sectors like agriculture and manufacturing should be favoured in terms of granting loans.

Keywords: Commercial banks, credit, economic growth, endogenous theory, neo-classical model

INTRODUCTION

Finance is required by different people, organizations and other economic agents for different purposes. To provide the needed finance, there are varieties of institutions rendering financial services. These institutions are called financial institutions. Financial institutions are divided into money and capital market. In the money market we have commercial banks that render financial services in term of intermediation. This involves channeling funds from the surplus spending to the deficient spending units of the economy, therefore, transforming bank deposits into credits.

The role of credit in economic development has been recognized as credits are obtained by various economic agents to enable them meet operating expenses. For instance, business firms obtain credit to buy machinery and equipment. Farmers collect loans to buy seeds, fertilizers, erect various kinds of farm buildings. Government bodies obtain credits to meet various kinds of recurrent and capital expenditures. Furthermore, individuals and families also take credit to buy and pay for goods and services (Adeniyi, 2006). Ademu (2006) said the provision of credit with sufficient consideration for the sector's volume and price system is a way to generate self-employment opportunities. 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 economics of scale. It can also be used to improve informal activity and increase its efficiency. This is achievable through resource substitution, which is facilitated by the availability of credit. While highlighting the role of credit, Ademu (2006), further, explained that credit can be used to prevent an economic activity from total collapse in the event of natural disaster, such as flood, drought, diseases, or fire. Credit can be garnered to revive such an economic activity that suffered the set back.

The banking sector helps to make these credit available by mobilizing surplus funds from savers who have no immediate needs of such funds and thus channel such funds in form of credit to investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute the ideas (Nwanyanwu, 2010). It is instructive to note that the banking sector has stood out in the financial sector as of prime importance, because in many developing countries of the world, the sector is virtually the only financial means of attracting private savings on a large scale (Adeniyi, 2006).

There are many literature, that debated on the intermediary role of banks in the economic growth. But, there seem to be a general consensus that the role of intermediation of banks help in boosting economic growth. Akintola (2004) identified banks' traditional roles to include financing of agriculture, manufacturing and syndicating of credit to productive sectors of the economy.

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According to Central Bank of Nigeria Annual Report (2012), Sectoral Distribution of Commercial Banks' Loans and Advances (N' Million) in fourth quarter 2012 stood at 316,364.0 for Agriculture, Forestry and Fishery, 1,068,341.7 for Manufacturing, 1,771,496.3 for Mining and Quarying and 539,759.8 for Real Estate and Construction. Export and Import are 65,612.8 and 690,962.4, respectively. Public utilities, transport and communication and credit to financial institution were 29,270.5, 966,251.3 and 249,083.4, respectively. Adekanye (1986) observed that in making credit available, banks are rendering a great social service, because through their action production is increased, capital investment are expanded and a higher standard of living is realized.

Considering the aforementioned and given the intermediary role of commercial banks in economic growth, this study intend to examine the impact of commercial bank credit on economic growth in Nigeria.

CONCEPTUAL FRAMEWORK

In this section the concept of bank credit and economic growth will be discussed. To start with credit is the money from the lender to the borrower (Nwanyanwu, 2010). Spencer (1977) noted that credit implies a promise by one party to pay another for money borrowed or goods and services received. Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in form of deposits from the surplus spending unit of the economy and passed on to the deficit spending units who need funds for productive purposes. Banks are therefore debtors to the depositors of funds and creditors to the borrowers of funds. Bank credit is the borrowing capacity provided to an individual, government, firm or organization by the banking system in the form of loans. Credit channels savings into productive investment thereby encouraging economic growth. Thus, the availability of credit allows the role of intermediation to be carried out, which is important for the growth of the economy.

The concept of economic growth is viewed as an increase in the net national product in a given period of time (Dewett, 2005). He explained that economic growth is generally referred to as a quantitative change in economic variables, normally persisting over successive periods. Todaro and Smith (2006) defined economic growth as a steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Jhingan (2006) viewed economic growth as an increase in output. He explained further that it is related to a quantitative sustained increase in the country's per capita income or output accompanied by expansion in its labour force, consumption, capital and volume of trade.

The main characteristics of economic growth are high rate of growth of per capita income or output, high rate of productivity, high rate of structural transformation, international flows of labour, goods and capital (Ochejele, 2007). Economic growth can also be measured in terms of Gross Domestic Product (GDP) and Human Development Index (HDI), which is an index that measures national growth based on measures of life expectancy at birth, education attainment, literacy and adjusted real per capita income.

Looking at the above definition we can conclude that economic growth is went there is a sustained increase in the actual output of goods and services per head.

THEORETICAL FRAMEWORK

Credit is an important aspect of financial intermediation that provides funds to those economic entities that can put them to the most productive use. Theoretical studies have established the relationship that exists between financial intermediation and economic growth. For instance, (Shumpeter, 1934; Goldsmith, 1969; Shaw, 1973) strongly emphasized the role of financial intermediation in economic growth. Similarly, Greenwood and Jovanovich (1990) observed that financial development can lead to rapid growth. In a related study, Bencivenga and Smith (1991) explained that development of banks and efficient financial intermediation contribute to economic growth by channeling savings to high productive activities and reduction of liquidity risks. They therefore concluded that financial intermediation leads to growth. Based on this assertion, this study examines the extent to which intermediation or credit to private sectors of the economy has influenced economic growth in Nigeria.

There are numerous growth models in literature. However, there is no consensus as to which strategy will achieve the best success. The achievement of sustained growth requires minimum levels of skills and literacy on the part of the population, a shift from personal or family organization to large scale unit (Nnanna, 2004). Some of these existing growth models are Two-Gap Model, Marxian Theory, Shumpeterian Theory, Harrod-Domar Theory of Growth, Neo-Classical Model of Growth and Endogenous Growth Theory. The growth models relevant to these are Neo-Classical Model of Growth and Endogenous Growth Theory. This is because they explain the situation in developing economies such as Nigeria, Cameron, etc.

The Neo-Classical Model of Growth was first devised by Robert Solow. The model believes that a sustained increase in capital investment increases the growth rate only temporarily. This is because the ratio of capital to labour goes up (there is more capital available for each worker to use) but the marginal product of additional units of capital is assumed to

decline and the economy eventually moves back to along-term growth path, with real GDP growing at the same rate as the workforce plus a factor to reflect improving "productivity". A "steady-state growth path" is reached when output, capital and labour are all growing at the same rate, so output per worker and capital per worker are constant. Neo-Classical economists believe that to raise an economy's long term trend rate of growth requires an increase in the labour supply and an improvement in the productivity of labour and capital. Differences in the rate of technological change are said to explain much of the variation in economic growth between developed countries. The neo-classical model treats productivity improvements as an exogenous variable meaning that productivity is assumed to be independent of capital investment (IMF, 2001).

According to Nnanna *et al*. (2004), based on Solow's analysis of the American data from 1909 to 1949, he observed that 87.5% of economic growth within the period was attributed to technological change and 12.5% to the increased use of capital. The result of the growth model was that financial institutions had only minor influence on the rate of investment in physical capital and the changes in investment are viewed as having only minor effects on economic growth.

Endogenous Growth Theory or new growth theory was developed in the 1980's by Romer, Lucas and Rebelo, among other economists as a response to criticism of the neo-classical growth model. The endogenous growth theory holds that policy measures can have an impact on the long-run growth rate of an economy (Wikipedia, 2013). The growth model is one in which the long-run growth rate is determined by variables within the model, not an exogenous rate of technological progress as in a neo-classical growth model. Jhingan (2006) explained that the endogenous growth model emphasizes technical progress resulting from the rate of investment, the size of the capital stock of human capital.

In an endogenous growth model, Nnanna *et al*. (2004) observed that financial development can affect growth in three ways, which are: raising the efficiency of financial intermediation, increasing the social marginal productivity of capital and influencing the private savings rate. This means that a financial institution can effect economic growth by efficiently carrying out its functions, among which is the provision of credit.

Data presentation: Table 1 shows that commercial banks has been providing credit to the private sector of the Nigerian economy. In order to examine the role of commercial bank credit to the economy, the commercial bank credit to the private sector of the economy is used to estimate its impact on Nigeria's economic growth, which is proxy by gross domestic product.

Table 1: GDP and commercial banks credit to the private sector of Nigeria

Year	GDP at current basic prices (N'Million)	Commercial Banks total credit to private sector (N' Million)
1992	875,342.52	75,456.3
1993	1,089,679.72	88,821.0
1994	1,399,703.22	143,516.8
1995	2,907,358.18	204,090.6
1996	4,032,300.34	254,853.1
1997	4,189,249.77	311,358.4
1998	3,989,450.28	366,544.1
1999	4,679,212.05	449,054.3
2000	6,713,574.84	587,999.9
2001	6,895,198.33	844,486.2
2002	7,795,758.35	948,464.1
2003	9,913,518.19	1,203,199.0
2004	11,411,066.91	1,519,242.7
2005	14,610,881.45	1,991,146.4
2006	18,564,594.73	2,609,289.4
2007	20,657,317.67	4,820,695.7
2008	24,296,329.29	7,799,400.1
2009	24,794,238.66	9,667,876.7
2010	33,984,754.13	9,198,173.1
2011	37,409,860.61	9,614,445.8
2012	40,544,099.94	10,440,956

Central Bank of Nigeria annual report (2012)

Model specification and analysis: The econometric model used for assessing the analysis of the data in Table 1 is a simple regression model. In order to achieve the stated objective, the model is hereby specified inline with the hypothesis that:

H_0: Commercial bank credit has no significant impact on the growth of the Nigerian economy

H_1: Commercial bank credit has significant impact on the growth of the Nigerian economy

The hypothesis will be tested at 5% level of significant.

The functional relationship is specified thus:

$$Y = F(X) \quad (1)$$

The econometric model of this functional relationship is given as:

$$GDP = \alpha + \beta X + \mu \quad (2)$$

where,

GDP = Gross domestic product

X = Commercial bank credit

α = Autonomous GDP when Commercial bank credit is held constant

β = Coefficient of commercial bank credit

μ = Error term

Given the assumed relationship, based on a priori reasoning between the GDP and commercial bank

Appendix:

Dependent variable: GDP

Method: Least squares
Date: 11/01/13 Time: 15:47
Sample: 1992 2012
Included observations: 21

Variable	Coefficient	S.E.	t-Statistic	Prob.
C	3950173.	1010337.	3.909757	0.0009
Bank credit	3.132765	0.211183	14.83437	0.0000
R-squared	0.920522	Mean dependent var		13369214
Adjusted R-squared	0.916338	S.D. dependent var		12451124
S.E. of regression	3601401.	Akaike info criterion		33.12194
Sum squared resid	2.46E+14	Schwarz criterion		33.22142
Log likelihood	-345.7803	F-statistic		220.0585
Durbin-Watson stat	0.885801	Prob (F-statistic)		0.000000

credit the expected signs of the parameter estimate of X, i.e., β is:

$$d\,GDP/dX = \beta > 0$$

Thus β is expected to be positive, meaning the higher the commercial bank credit, the higher the GDP. The regression result is as follows (Appendix):

$GDP = 3950173 + 3.132765X_1$
SE = (1010337) (0.211183)
T* = (3.909757) (14.83437)
$T_{tab} = 2.861$
F* = 220.0585
$F_{tab.} = 4.38$
$R^2 = 0.920522$
Adj. $R^2 = 0.916338$
Durbin-Watson stat 0.885801
d_L 1.22 and d_U 1.44
0<DW<DL (0 <0.885801<1.22). This means that there is positive autocorrelation.

RESULTS INTERPRETATION

The parameter estimate β, which is the productivity coefficient X is positive which agrees with the apriori expectation. From the standard error S(α) < ½ (α) and S(β) < $^1/_2$(β), all indicate that the standard error is statically significant. Similarly, t-statistics is equally significant. Therefore, the overall model is statistically significant as revealed by the high value of F-statistics. The coefficient of determination R^2 shows that 92% variation in GDP is caused by commercial bank credit. Therefore, we accept the alternative hypothesis that commercial bank credit has significant impact on the growth of the Nigerian economy from 1992 to 2012.

CONCLUSION AND RECOMMENDATIONS

The study examine the role of bank credit in economic growth of Nigeria. Based on the findings of the study, it was observed that bank credit has impacted significantly on the growth of the Nigerian economy. Therefore, bank should continue to give credit to the private sector of the economic as it is contributing significantly for the growth of GDP in Nigeria.

In order to consolidate on this success story, better and stronger credit culture should be promoted and sustained; there should be strong and comprehensive legal framework that will continue to aid in monitoring the performance of credit to private sector and recovery debts owed to banks; bank should share among themselves information on bad debt; and preferred sectors like agriculture and manufacturing should be favoured in terms of granting loans.

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