IMPACT OF BANK CREDIT ON THE REAL SECTOR: EVIDENCE FROM NIGERIA

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ABSTRACT

The paper examines the impact of bank credit to output growth in the manufacturing and agricultural sub sectors of the economy over the period 1980-2010. Using the error correction modeling techniques, the results show that bank credit has significant impact on manufacturing output growth both in the short run and long run but not in the agricultural sub sector. Inflation and exchange rate depreciation have negative effects on manufacturing output growth in both short run and long run. To boost output growth in the real sector, more bank credit should be made available to the real sector especially the manufacturing sector. Also, inflation should be kept low while the value of the domestic currency should be strengthened.

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KEYWORDS: Bank Credit, Real Sector

INTRODUCTION

Over the years in Nigeria, the volume of credit into the economy has continued to increase. The volume of credit to the private sector increased from mere N6,234.23 million in 1980 to N29.21 billion in 2010. Credit to private sector as a percentage of Gross Domestic Product (GDP) increased from 12.56 in 1980 to 18.59 percentage point in 1993. The figure increased to 37.78 in 2010. This credit behavior in general terms to any economy, is expected to assist in leveraging economic agents, augment their vulnerability to economic shocks and ultimately enhance economic growth. However, over the years, the economic growth has remained very low except for the last four years when marginal increases were recorded. This puzzle has raised concern as to the impact of bank credit on economic growth in Nigeria. Indeed, study by Bayoumi and Melander (2008) for US macro-financial linkages showed that a 2.5% reduction in overall credit caused a reduction in the level of GDP by around 1.5 percent. In the same way, King and Levine (1993) study for 80 countries found that bank credit affected economic growth through improvement of investment productivity (better allocation of capital) and through higher investment level. Several other studies that support this claim include De Gregorio and Guidotti (1995), Levine (2002) and Boyreau-Debray (2003).

However, the main feature of most existing studies is that they tend to focus on aggregate economic growth without looking at the components. Unfortunately, aggregate growth may veil fundamental issues in the growth process. This is particularly relevant in the case of Nigeria where oil constitutes a major share of aggregate economic growth. However, oil is an enclave sector with very little value added. Therefore, attempt at looking at the impact of bank credit on aggregate will not give complete picture of the situation. There is the need to focus on the real sector namely agriculture and manufacturing sub sectors. The real sector comprising agriculture and manufacturing constitute the soul of any the economy; hence whatever happens in the real sector will have a serious repercussionary effect on the entire economy. This explains the rationale for the study. Specifically, the study examines the effects of bank credit on the growth of the real sector namely agricultural and manufacturing sub sectors.

The rest of the paper is organized as follows: section 2 reviews the related literature. Section 3 discusses the methodology. Estimation and discussion of results are provided in section4 and section 5 concludes the study.

LITERATURE REVIEW

In this section, we present a brief summary of existing literature on the effect of bank credit and economic growth. The general idea that economic growth is related to financial development dates back at least to Schumpeter (1911). He contended that financial institutions could spur innovation and growth by identifying and funding productive investments. In the same way, Gurley and Shaw (1967), Goldsmith (1969); Mckinnon (1973) and Shaw (1973) have argued that financial development could foster economic growth by raising saving, improving allocative efficiency of loanable funds, and promoting capital accumulation. The specific role of bank credit to private sector in promoting growth has been noted in the literature. It is argued that financial instruments such as credit provided by banking sector and the liabilities of the system in the economy are correlated with gross domestic product, savings, and openness trade (Leitão, 2012). Similarly, Ngai (2005), Josephine (2009) and Plamen and Khamis (2009) argued that bank credit could help in the provision of funds for productive investment. This is particularly important in developing countries where capital markets are not fully developed.

Asides, they contended that bank credit availability could positively affect consumption and investment demand and thus aggregate output and employment. Empirically, a number of studies have shown that bank credit has positive effect on economic growth. The study by Eatzaz and Malik (2009) for 35 developing countries analyzed the role of financial sector development on economic growth. The study using GMM approach reported that domestic credit to the private sector led to increased per workers output and thus increased economic growth in the long run. Their finding was consistent with the findings of Levine (2004), and Franklin Qura (2004). Dey and Flaherty (2005) using two-stage regression model examined the impact of bank credit and stock market liquidity on GDP growth. The results showed among other things that bank credit had significant effect on GDP growth for a number of countries. The study by Leitão (2010) European Union Countries and BRIC (Brazil, Russian, India and China) over the period 1980-2006 showed that domestic credit positively impacted economic growth. As in Levine et al (2000) and Beck et al. (2000), the paper adopted a dynamic panel data.

The study by Murty et al. (2012) examined the impact of bank credit on economic growth in Ethiopia over the period 1971 – 2011. The results from Johansen multivariate cointegration showed that bank credit to private sector positively impacted economic growth through its role in efficient allocation of resources and domestic capital accumulation. Other interesting works in this area that found positive relationship between credit and firms growth were Beck et al. (2008) and Carpenter and Peterson (2002).

With respect to Nigeria, study by Onuorah (2013) for the period 1980-2012 examined the impact of bank credit on economic growth. The results from cointegration VAR and Causality showed that various measures of bank credit namely total production bank credit and total general commerce bank credit had significant positive effect on economic growth in Nigeria over the study period. In the same way, study by Aliero et al. (2013) over the period 1974-2010 examined the impact of bank credit on economic growth. The result from Autoregressive distributed lag bound approach showed that private sector had significant positive effect on economic growth in Nigeria. In contrast, few studies have documented negative, little or no effect of credit on economic growth. These studies include Hassan et al. (2011), Levine (1997) and Levine et al (2000). In the same way, the study by Mushin and Eric (2000) showed that the effect runs from economic growth to financial development and not otherwise.

METHODOLOGY AND DATA

In the context of a neoclassical growth model, we use the following empirical specification to examine the effect of bank credit on the performance of the real sector of the economy:

$$GDP_{it} = \propto_0 + \propto_1 TC_{it} + \propto_2 INT_t + \propto_3 GFF_t + \propto_4 INF_t + \propto_5 EXR_t + \mu_t \quad (1)$$

where i (i = 1, 2) denotes two subsectors namely agriculture and manufacturing. GDP is the growth rate of real Gross domestic product of each sub sector, TC is the total credit to each subsector. INT is the lending rate; EXR is the exchange rate; GFF is the gross fixed capital formation; INF is the rate of inflation; u_t is the disturbance term and t is the subscript of time. Turning to the econometric techniques, we adopted the Engle and Granger (1987) approach. They suggest a two-step approach. First, the existence of a cointegrating relationship among the variables under consideration is determined based on standard cointegration techniques. In a situation where the variables are stationary, a stable long-run relationship can be estimated using standard ordinary least square (OLS) techniques. Second, the information in error term of the long-run relationship is used to create a dynamic error correction model. As noted by Engle and Granger (1987), the error correction model produces consistent results even when the right-hand side variables are not completely exogenous.

Data Measurement, Description and Sources

The study utilized annual Nigerian observations on growth rate of real agricultural GDP (GDPA), growth rate of manufacturing GDP (GDPM), total credit to the agricultural sector (TCA), total credit to the manufacturing sector (TCM), interest rate (INT) measured as lending rate, gross fixed capital formation (GFF), inflation rate (INF) and exchange rate (EXR) measured as unit of domestic currency per dollar. All the data were sourced from the Central Bank of Nigeria Statistical Bulletin 2011. To generate the real GDP series, we deflated the nominal series by consumer price index. The data spanned the period 1980-2010. The descriptive statistics of the data series are as shown in Table 1. Table 1 shows that all the series display a high level of consistency as their mean and median values are perpetually within the maximum and minimum values of the series. The statistics in Table 1 shows that the series except exchange rate and lending rate are leptokurtic (peaked) relative to normal as the kurtosis value exceeds 3. Finally, the probability that the Jacque-Bera statistic exceeds (in absolute value) the observed value is generally low for all the series suggesting the rejection of the hypothesis of normal distribution at 5 per cent level of significance.

Table 1: The Descriptive Statistics of the Variables

	TCA	GDPM	EXR	GFF	INF	INT	GDPA	TCM
MEAN	36,990	24,423	54.319	48,136	29.437	17.476	211,425	190,374
MEDIAN	29,348	14,591	21.886	40,121	14.03	18.29	96,220	71744.3
MAXIMUM	149,579	286,494	150.3	13,321	160	29.8	2,801,292	992,386
MINIMUM	462.2	3,486	0.546	6,332	4.67	7.5	6,502	1,957
STD.DEV	42,379	48,928	58.133	27,460	34.298	5.439	486,704	275,676
SKEWNESS	1.352	5.1958	0.509	1.1472	2.249	-0.0023	5.090	1.790
KURTOSIS	4.096	28.354	1.435	4.465	8.306	2.788	27.621	5.341
JARQUE-BERA	11.0004***	969.776***	4.502	9.571***	62.505***	0.058	916.9***	23.639***
PROBABILITY	0.000	0.000	0.105	0.0084	0.000	0.971	0.000	0.000007
SUM	1,146,676	757,128	1,683.9	1,492,225	912.54	541.77	6,554,175	5,901,585
SUM SQ DEV	53,900+	71,800+	101,382	22,600+	35,290	887.75	7,110,000+	2,280,000+
OBSERVATION	31	31	31	31	31	31	31	31

Table 1 shows the results from the descriptive statistics and the Jarque-Bera normality test. The asterisk denotes significance at 1%. This is established by the p-values under the Jarque-Bera values. + indicates in millions

EMPIRICAL RESULTS

Unit Root Test

Our first aim is to investigate the unit root properties of the data series. To obtain the integrational properties of the data series, we apply the Augmented Dickey Fuller (ADF) and Philips-Perron (PP) tests. The results for both ADF and PP show that log levels of all the variables (gross fixed capital formation, inflation, manufacturing GDP, exchange rate credit and lending rate) were not stationary. However, when we subject the first difference of these variables to the ADF and PP tests, all the variables became stationary i.e. *I*(1). For space consideration, the empirical results are not presented here.

Cointegration

Our next aim is to investigate whether or not growth of real GDP in the sector, gross fixed capital formation, lending rate, inflation and exchange rate share common long run relationship(s). To achieve this, we follow the procedure of Engle and Granger (1987) by estimating the long run model, and test the residual for unit root. The estimated long-run relationship(s) for manufacturing and agriculture are reported as equations 1 and 2 respectively in Table 2.

Table 2: Results for Long Run Model

	(1)	(2)
Variable	Coefficient	Coefficient
Constant	6.579	4.550
	(-3.042)***	(1.330)
TCM	1.597	-
	(6.899)***	
TCA	-	0.396
		(1.396)
GFF	0.075	0.266
	(0.675)	(1.361)
INF	-1.317	0.1333
	(-6.235)***	(1.076)
EXR	-0.269	0.024
	(-1.521)	(0.088)
INT	1.059	0.012
	(3.535)***	(0.024)
Adjusted R^2	0.777	0.597
SE	0.308	0.594
F-statistic	9.894 (0.0000)	9.894 (0.0000)

Table 2 shows the results of the log-run estimates based on equations $GDP_{it} = \alpha_0 + \alpha_1 TC_{it} + \alpha_2 INT + \alpha_3 GFF + \alpha_4 INF + \alpha_5 EXR_{it} + ut$ *specified for each of agricultural and manufacturing subsectors. The values in parenthesis are the t-values. ***, ** and * denote significance at 1%, 5% and 10% respectively*

From the long run estimations, we test for the unit root of the residuals to ascertain the long run relationship. The computed ADF test statistics for the residuals of long run model for manufacturing and agriculture subsectors are -6.472 and -3.722 while the critical value are -3.670 and 2.964 at 1% and 5% respectively. The results show that the error terms are stationary. The estimated long run model for manufacturing sub sector performed reasonably well. The adjusted R^2 is high and the F statistic is significant. The result shows that credit to the manufacturing subsector has significant positive impact on manufacturing growth. Likewise, the coefficient of lending rate is positive. Inflation and exchange rates are negatively related to manufacturing growth and are significant at 1% and 10% respectively. A 1 % increase in exchange rate (depreciation) will lead to a 0.27% reduction in manufacturing output.The estimated long run model for agriculture did not perform well. The adjusted R^2 is 0.60. Credit to the agricultural sub sector and gross fixed capital formation both have positive effect on agricultural growth but only significant at 20%. All other variables are not significant.

Dynamic Model

The dynamics version of the long-run relationships estimated and reported as equations 1 and 2 in Table 2 be specified as error correction models as equations 2 and 3 for manufacturing and agriculture respectively;

$$\Delta GDP_m M_t = \beta_0 + \sum_{i=0}^{n} (\beta_{1i}\Delta TCM_{t-i} + \beta_{2i}\Delta GFF_{t-i} + \beta_{3i}\Delta INF_{t-i} + \beta_{4i}\Delta EXR_{t-i} + \beta_{5i}\Delta INT_{t-i}) + \beta_6 \Delta EC_{t-i} + \gamma_t \dots\dots (2)$$

$$\Delta GDP_m A_t = \delta_0 + \sum_{i=0}^{n} (\delta_{1i}\Delta TCA_{t-i} + \delta_{2i}\Delta GFF_{t-i} + \delta_{3i}\Delta INF_{t-i} + \delta_{4i}\Delta EXR_{t-i} + \delta_{5i}\Delta INT_{t-i}) + \delta_6 \Delta EC_{t-i} + \varepsilon_t \dots\dots (3)$$

The models were estimated using OLS estimation techniques on annual data for the period 1980-2010. The results for manufacturing sub sector reported as equation 1 in Table 3 show that credit to the sub sector increases manufacturing growth. A 1 per cent increase credit to the manufacturing sub sector will increase manufacturing GDP by 1.2 per cent. This should not come as a result because finance is crucial to production in the subsector. The results show that gross fixed capital formation is positively related to manufacturing growth but the coefficient is not significant. Lending rate (INT) has a significant positive effect on manufacturing contrary to a priori expectation. The results show that a 1 per cent increase in prime lending rate will increase manufacturing growth by 0.52 per cent. One possible reason for this result could be that higher cost of borrowing leads to increase production efficiency in the sub sector. As a result of high cost of borrowing in the country, managers might have no option than to implement cost reduction strategies such as increased working hour and downsizing of workers to ensure high increased efficiency.

Table 3: Results for Error-Correction Model

	(1)	**(2)**
Variable	Coefficient	Coefficient
Constant	0.135	0113
	(1.496)*	(0.892)
TCM	1.247	-
	(3.085)***	
TCA	-	0.262
		(0.734)
GFF	0.002	0.221
	(0.020)	(1.127)
INF	-1.451	0.021
	(-5.687)***	(0.217)
EXR	-0.289	-0.083
	(-1.903)*	(-0.267)
INT	0.515	0.313
	(2.367)**	(0.737)
EC_{t-1}	-1.02	-0.730
	(-5.011)***	(-3.392)***
Adjusted R^2	0.746	0.205
SE	0.242	0.492
F-statistic	15.179 (0.0000)	2.247 (0.074)

Table 3 shows the error correction model results based on the equation: $\Delta GDP_t = \beta_0 + \sum_{i=0}^{n}(\beta_{1i}\Delta TC_{t-i} + \beta_{2i}\Delta GFF_{t-i} + \beta_{3i}\Delta INF_{t-i} + \beta_{4i}\Delta EXR_{t-i} + \beta_{5i}\Delta INT_{t-i}) + \beta_6 \Delta EC_{t-i} + v_t$ *specified for each of the agricultural and manufacturing subsectors. The values in parenthesis are the t-values. ***, ** and * denote significance at 1%, 5% and 10% critical levels respectively.*

The coefficients of exchange rate and inflation are negative and significant at 10% and 1 per cent respectively. This shows that increase in exchange (depreciation) will reduce output growth of the manufacturing sub sector. The negative effect of the inflation on manufacturing could partly be attributed to the destabilizing effect of high prices on investment and resources allocation with adverse effect on output. Asides, the uncertainty associated with high prices could send unwanted signals to the producers

leading to temporary resource allocation. The associated adjustment costs and temporary nature of reallocation could result in efficiency losses leading to a reduction in manufacturing output. The negative effect of exchange rate on manufacturing is understandable. Nigerian manufacturing sub sector depends largely on imported intermediate inputs and raw materials for production. Consequently, depreciation of the exchange rate tends to increase costs of these imported materials, which in turn leads to increased cost of production with adverse effect on output in the sector.

The relative fit and efficiency of the regression is averagely alright and as the theory predicts, the EC term is negative and significant. The coefficient value and sign of EC_{t-1} (approximately = 1.00) indicates that any disequilibrium formed in the short run will be temporary and get fully corrected 100 per cent over a period of a year. The results for agricultural sector are reported as equation 2 in Table 3. The results obtained in the short run model are quite similar to the long run results. All the variables except exchange rate have positive effect on agricultural growth. However, none of the variables is significant. This clearly suggests that credit investment, lending rate inflation and exchange rate are not the main determinants of agricultural output in Nigeria. This should not come as a surprise as farming is mostly practiced at subsistence level in the country. Farming at subsistence does not necessarily required credit, huge capital investment and high level manpower. In the same way, macroeconomic factors such as exchange rate, lending rate and inflation may not have significant effect on agricultural production at subsistence level.

Finally, the error correction term (EC) is negative and significant. The coefficient value and sign of the EC_{t-1} (-0.73) indicates that about 73 per cent of the disequilibrium error which occur in the previous year are corrected in the current year. In terms of performance, manufacturing subsector model performed better than agricultural growth model. This is clearly shown in the values of the adjusted coefficients of determination, F-statistics, Durbin-Watson statistics, standard error of regression, signs and significance of the parameters. However, the estimated error correction model for the two subsectors were found to be stable over the period studied based on the CUSUM and CUSUM of Squares tests

CONCLUSION

In this paper, we attempt to examine the impact of bank credit on the growth of the real sector namely agriculture and manufacturing subsectors. To achieve this goal, we followed the procedure of Engel and Granger (1987) approach by estimating the long-run and the error –correction models based on annual data for the period 1980-2010. The results of the estimation show that bank credit to the manufacturing sub sector has significant effect on its growth both in the long-run and short run. However, bank credit to the agricultural sub sector did not impact significantly on agricultural growth both in the long-run and short run. Inflation tends to reduce manufacturing growth while exchange rate depreciation reduces manufacturing growth in the short-run and long-run. These variables inflation and exchange rate were not significantly related to agricultural output in the economy.

Therefore, based on these findings, we discuss certain policy implications. Given that credit is positively related to growth in the real sector, policies designed to increase bank credit to the real sector would appear very useful. More bank credit to the real sector would be beneficial to higher growth in the real sector. Higher output growth in the real sector will no doubt have positive effect on employment and, aggregate demand and output.

Second, low inflation is conducive to more manufacturing output growth. Therefore, policies designed to reduce inflation will enhance manufacturing output growth. Such policies will include reduction in domestic money supply and increase in domestic output to meet demand. Third, policies designed to enhance the value of the domestic currency will help in boosting manufacturing output growth. As the value of domestic currency depends mostly on the level of domestic productivity, policies should be designed to boost productivity in the economy. Finally, the study only examines the real sector of the

economy. Future research should focus on other subsectors of the economy. Such an analysis will enable us compare the impact of bank credit in all the sectors of the economy. This will help the monetary authority in the allocation of credit to the various sectors of the economy.

REFERENCE

Aliero, H. M., Abdullahi, Y. Z. & Adamu N. (2013) "Private Sector Credits and Economic Growth Nexus in Nigeria: An Autoregressive Distributed Lag Bound Approach" *Mediterranean Journal of Social Sciences*, vol. 4, p. 83-90.

Bayoumi, T. & Melander, O. (2008) "Credit matters: Empirical Evidence on US Macro Financial Linkages," IMF Working Paper/08/169

Beck, T., Levine, R., & Loayza, N. (2000) "Finance and the Sources of Growth," *Journal of Financial Economics*, vol. 58, 261-310.

Beck, T., Rioji, F. & Valen, N. (2009) "Who Gets the Credits? And Does it matter?," European Banking Center Discussion Paper No. 2009-12.

Boyreau-Debray, G. (2003) "Financial Intermediation and Growth – Chinese Style," Policy Research Working Paper 3027, The World Bank.

Carpenter, R. & Peterson B. (2002) "Is the Growth of Small firms constrained by Internal Finance?" *The Review of Economics and Statistics*, vol. 84(2), p. 298-309.

De Gregorio, J. & Guidotti, P. E. (1995) "Financial Development and Economic Growth," *World Development*, vol. 13(3), p. 433-448.

Dey M. K. & Flaherty, S. (2005) Stock Exchange Liquidity, Bank Credit, and Economic Growth". Paper presented at the Max Fry Conference on Finance and Development, University of Birmingham, The Business School University House, Birmingham B15 2TT.

Eatzaz, A. & Malik, A. (2009) "Financial Sector and Economic Growth: An Empirical Analysis of Developing Countries," *Journal of Economic Cooperation and Development*, vol. 30(1), p. 17-40.

Engle R. & Granger C. (1987) "Cointegration and Error Correction: Representation, Estimation and Testing," *Econometrica*, vol. 55, p.251-276.

Franklin, A. & Oura, H. (2004) "Sustained Economic Growth and the Financial System," Institute for Monetary and Economic Research (IMES), bank of Japan, Discussion paper No. E-17.

Goldsmith, R. W. (1969) *Financial Structure and Development*. New Haven, CJ: Yale University Press.

Gurley, J. & Shaw, E. (1967) "Financial Structure and Economic Development," *Economic Development and Cultural Change*, vol. 15, p.257-268.

Hassan, M. K.; Sanchez, B. & Yu, S. J. (2011) "Financial Development and Economic Growth: New Evidence from Panel Data," *Quarterly Review of Economic and Finance*, vol. 51, p. 88-104.

Josephine, N. O. (2009) "Analysis of Bank Credit on the Nigerian Economic Growth (1992-2008). *Jos Journal of Economics*, vol. 4(1), p .43-58.

King, R. G. & Levine R. (1993) "Financial Intermediation and Economic Development" In: Mayer and Vines (Eds.): *Financial Intermediation in the Construction of Europe.* London Centre for Economic Policy Research, p. 156-189.

Leitão, N. C. (2010) "Financial Development and Economic Growth: A Panel Data Approach," *Theoretical and Applied Economics*, vol. XVII 5(511), p. 15-24.

Leitão, N. C. (2012) "Bank Credit and Economic Growth: A Dynamic Panel Data Analysis," *The Economic Research Guardian*, vol. 2(2), p. 256-267.

Levine, R. (1997) "Financial Development and Economic Growth: Views and Agenda," *Journal of Economic Literature*, vol. 35(2), p. 688-726.

Levine, R. (2002) "Bank-based or Market-based Financial System: Which is Better," *Journal of Financial Intermediation*, vol. 11(4), p.398-428.

Levine, R. (2004) "Finance and Growth: Theory and Evidence" NBER Working Paper No. 10766.

Levine, R., Loayza, N. & Beck, T., (2000) "Financial Intermediation and Economic growth: Causes and Causality" *Journal of Monetary Economics*, vol. 46, p.31-77.

McKinnon, P. (1973) *Money and Capital in Economic Development*, Washington DC: Brookings Institution.

Muhsin, K. & Eric, J. P. (2000) "Financial Development and Economic Growth in Turkey: Further Evidence on the Causality Issue," Centre for International, Financial and Economic Research, Department of Economics, Loughborough University.

Murty, K. S., Sailaja, K. & Demissie, W. M. (2012) "The Long-Run Impact of Bank Credit on Economic Growth in Ethiopia: Evidence from the Johansen's Multivariate Cointegration Approach" *European Journal of Business and Management*, vol. 4, p.20-33.

Onuorah, A. C. (2013) "Bank Credits: An Aid to Economic Growth in Nigeria" *Information and Knowledge*, vol. 3, p. 41-50.

Ngai, H. (2005) "Bank Credit and Economic Growth in Macao monetary Authority of Macao, Retrieved from www.amcm.gov.mo/publication.

Plamen, K. & Khamis, A. (2009) "Credit Growth in Sub-Saharan Africa: Sources, Risks and Policy Response," IMF Working Paper WP/09/180.

Schumpeter, J. A. (1911) *The Theory of Economic Development,* Cambridge, M: Harvard University Press.

Shaw, E. S. (1973) *Financial Deepening in Economic Development*, New York: Oxford University Press.

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