DOES COMMERCIAL BANK LENDING INCITE GROWTH? THE IMPACT OF COMMERCIAL LENDING ON REAL SECTOR GROWTH IN NIGERIA

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Abstract:
The study investigates the effect of bank lending on growth in Nigeria using a sample of data from 1989 to 2012; 23 years the method of estimation used in the study is the 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. The policy implication of the finding is that lower interest rates and less stringent conditions are likely to increase bank lending in general and this could have far reaching effect in driving growth in Nigeria.

Key words:
Bank Lending, Real Sector Growth, Central Bank Policies,Quantile regression.

JEL: E43, E52, G21, G28

1 Introduction

The relationship between private sector lending and growth is one that can have strong consequences for the growth of a country and the viability of many private sector businesses. 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. Growth and business cycles fluctuations are a norm in the global economy, economic crises such as the 2007 sub-prime mortgage crisis have the capability of affecting lots of lives that depend on earnings from production capabilities in the private business sector for a living. The relationship between commercial lending and economic growth will be one in which the private sector which is the primary driver of a nation's economy will be affected by increased cost of access to capital dueto the riskiness of the business environment leading to the high probability of loan default.

This high probability to default is likely to make many private sector businesses to be averse to borrowing forcing them to downsize on their production output which will finally be accompanied by laying-off production staffs. The question if commercial bank lending incites growth in Nigeria is one that has not been previously addressed in a sufficient manner. It is well known that commercial bank lending in Nigeria is at an all time low and has not returned to the pre 1990s lending levels, (CBN 2012 statistics) making most Nigerian banks to be failing in their role of primary responsibility which is to lend to private sector businesses.

While most of the blame lies at the doorstep of commercial banks the Nigerian government also has a joint responsibility since it has failed to create enabling environment for productive commercial activities that have the capability to reduce the transaction cost associated with production making the business environment to be risky. A host of macroeconomic variables are identified in the study to be responsible for driving growth in the Nigeria economy this include the cost of access to capital, institutional quality, the country's monetary policy, aggregate savings and finally aggregate loss of capital due to default or mismanagement in the Nigerian Banking system.

The rest of the paper is divided into the scope and objective of study, review of literature, stylized facts on bank lending and growth, theory and methodology, empirical analysis and results and finally the concluding sections.

2 Scope and objective of study

The study presents empirical evidence of the effect of commercial bank lending on economic growth in Nigeria. Commercial bank lending to the private sector could be an agent of private sector led growth however due to low aggregate bank lending the need to reexamine the role of banks in the Nigeria growth question becomes quite necessary. The objectives of the study include;

a) To examine the extent to which commercial lending affects growth by stimulating private sector led growth in Nigeria
b) To examine the impact of institutional quality in driving growth in Nigerian economy
c) To examine the impact of bank losses on growth since growth can be impeded by losses resulting from loan defaults due to the riskiness of the Nigerian business environment on private sector businesses.

3 Review of literature

This section reviews current literature on commercial lending on growth. The study by Borio and Zhu (2007), state that the pro-cyclical behavior of estimates of probability to default often gives a measure of the riskiness of the immediate business environment. They study the impact of business environment on loan default and find that default loss can be attributed to unforeseen risks of the business environment.

The paper by Bernanke and Kuttner (2003) also finds that unanticipated changes in monetary policy that also affect stock prices is also likely to affect risks perceptions and private sector willingness to bear risks, making business environment risk to be highly dependent on country specific monetary policy. Monetary policy can have strong results for commercial lending since bank interests rates is likely to be higher in more risky business environments. Private sector businesses are likely to also be risk averse to borrowing if interest rates are high since this can shrink profit margins.

The study by Jiménez et al. (2006, 2007) also study lending behavior of European banks and finds that Spanish banks grant more risky loans and reduce lending standards at lower levels of interest rates. Other study Altunbas et al. (2009a) also find that banks are able to offer better interest rates and larger credit in less risky environment with minimal probability of default.

The study by Jiménez et al. (2007) also finds empirical evidence that the tightening of monetary policy is also likely to affect bank profitability since this will affect bank yield curve, through increases in interest rates leading to lower credit access and lower returns on borrowed capital.

Burnside and Dollar (2000) also study the effect of economic policy on growth and find that policy can serve as a good substitute for foreign aid and was having significant effect on growth. The relationship of commercial lending and growth is one in which commercial lending will affect growth through country specific monetary policy which can provide useful implication for the private sector since loan growth in banks is likely to stimulate private sector led growth in an economy. For further discussions of bank lending can affect growth see Bernanke and Kuttner (2003) and Jiménez et al. (2007).

4 Stylized facts on commercial lending and growth

The Nigerian economy has been experiencing steady growth in past decade see fig. 1. This growth can be attributed to the current global commodity boom. The country has not managed to use the windfall to diversify the economy by ensuring that a strong domestic market is in place that can cushion the economy from shocks from the global economy. Bank lending is currently also very low; banks due to the risky business environment often put stringent lending procedures in place, making borrowers to be averse to lending see fig. 2.

Fig. 1:

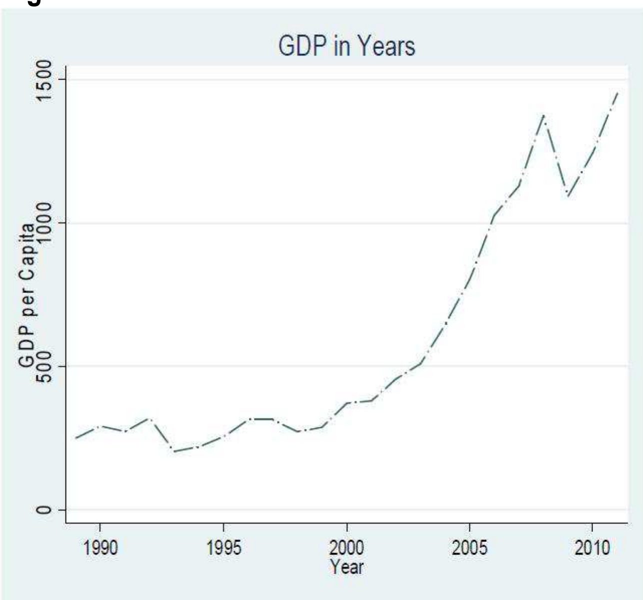
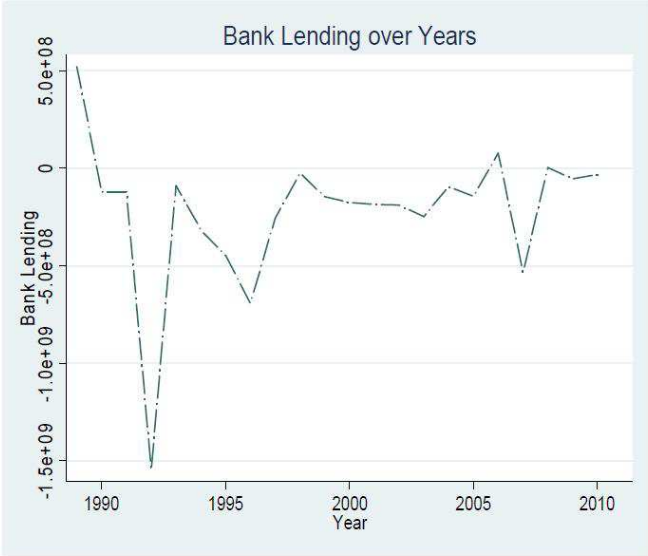


Fig. 2:



The expectation therefore is that bank lending will be exerting a negative effect on growth in Nigeria, due to poor lending trends in Nigerian commercial banks. The role of banks in the Nigeria economy is one that is therefore questionable, since bank were not performing their role of lending to the private sector. The implication of this is that the current growth is not sustainable since it driven by factors primarily outside the domestic economy that we have little or no control over.

Commercial banks in conjunction with policy agencies could help drive sustained growth if the Central Bank policies can make the Nigerian business environment less risky making commercial banks to have the ability to improve on their lending abilities through driving down nominal interest rates.

Legal rights the measure of oversight control in banks derived from judicial enforcement efficiency is also at an all time low. Legal enforcement has reduced by over 45 % in just 20 years. It depicts the level of weakness in Nigerian institutions, supporting previous studies particularly Ross (2001) and Acemoglu and Johnson (2007) who argue that institutions in developing countries are weak. Bank losses is also gradually on the increase however losses are minimal since banks lending trends are currently very low and most losses currently recorded are attributable to management fraud see Ojeaga et al (2013) for further discussion of how management fraud is likely to increase commercial bank losses in Nigeria.

Fig. 3:

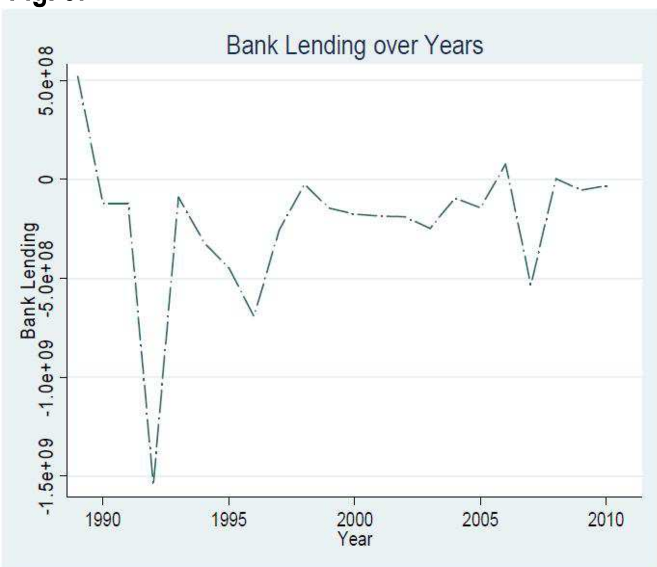
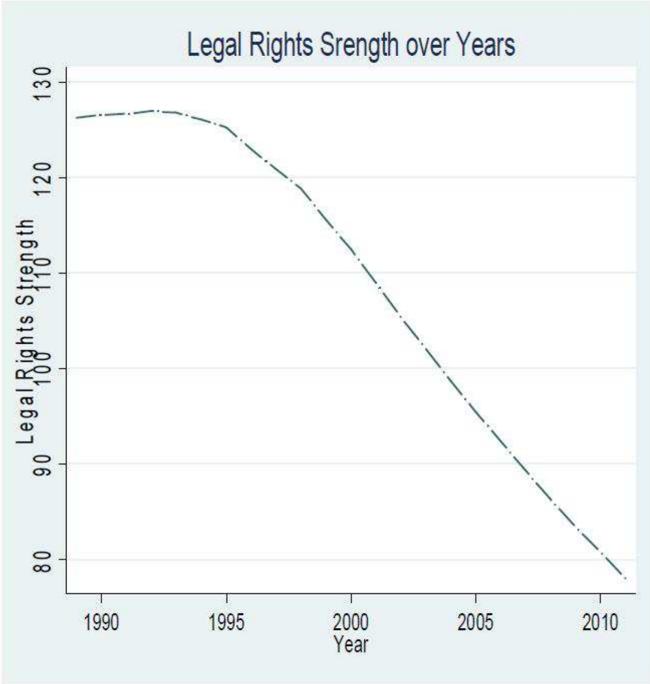


Fig. 4:



Savings is also on the increase this is largely attributable to fair wage allocation, since wage rates have improved considerably making workers to have excess budget allocation that could be saved up and find fixed savings accounts the best way to do so. The current growth has also created expansion in the domestic economy which was largely unaffected by the global financial crisis of 2007 allowing private enterprises to have accumulated capital also saved in commercial banks.

Money supply has also reduced and has not returned to the pre 1997 levels this is attributable to Central Bank of Nigeria policy of checking inflation and the two bank consolidation exercises under taken in the last decade to prevent liquidation of some commercial banks by increasing the security deposit with NDIC (Nigerian Deposit and Insurance Commission) and merging weak banks with stronger ones to shore their strength and make them less vulnerable to liquidation.

Fig. 5:

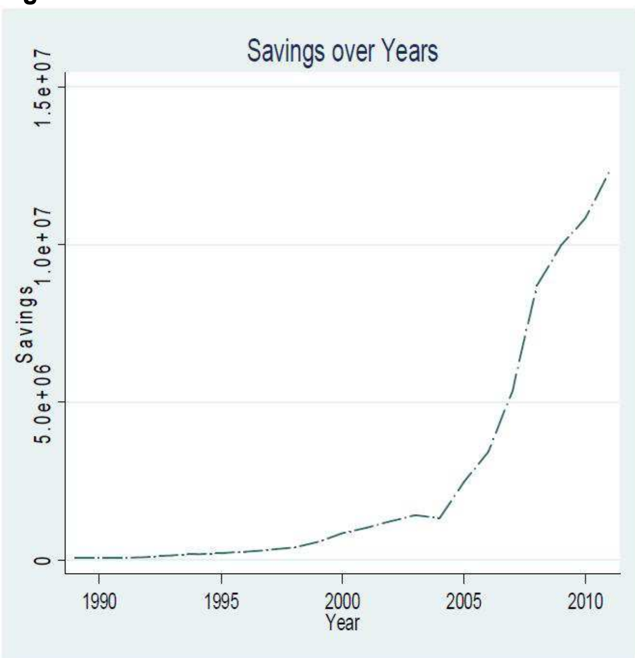
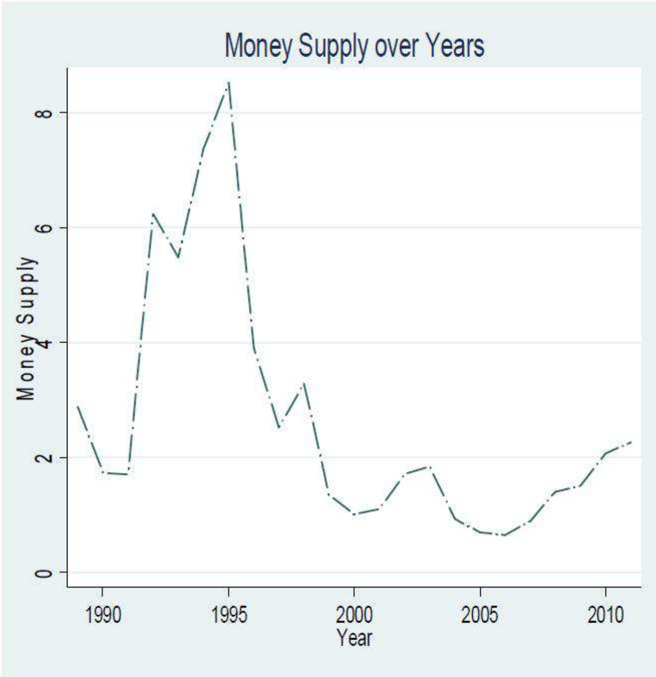


Fig. 6:



While a host of factors will affect growth the impact of commercial bank lending on growth is likely to have an indirect causal effect on growth through output production in the private sector of the Nigeria economy. Effective bank participation in private sector led growth is likely to shore up domestic economy driven growth that is more sustainable than the current growth attributable to windfall in the global commodity prices. This will allow for the diversification, of the economy and development of a strong domestic market in Nigeria.

5 Theory and methodology

The theory we present in this study is one in which we argue that bank lending has the capabilityof affecting growth through private sector business. Past study Disyatat (2010) study bank lending, and state that banks are risk neutral entities that operate in a competitive environment.

The work builds on the conceptual framework developed by Gale and Hellwig (1985) and Holmstrom and Tirole (1997), who state that credit imperfections in a situation where firms are dependent on bank loans is likely to affect private sector output production through monetary policy which will determine the cost of accessing such capital.

The model will now be one in which commercial lending and a list of factors that we identify to promote growth in Nigeria will be primarily responsible for growth promotion allowing us to state that growth will be a function of bank lending, deposits, interest rate, legal strength, bank losses and money supply which can be expressed as Growth f (bank lending, deposits, interest rate, legal strength, bank losses and money supply). Interest rates therefore represents the cost of capital acquisition, bank savings deposits depicts excess wage allocation and represents the cost of labor, legal strength depicts oversight regulation and institutional quality, bank losses represent loan growth in banks and finally money supply represents the apex bank monetary policy.

Allowing us to make a point that, lending is likely to affect growth since market financing of cost of capital is likely to drive private sector growth. The major advantage of the model is that we do not neglect the impact of reserved liabilities on the cost of capital and growth since bank losses is likely to drive up cost of capital Disyatat (2008) making our model to be well specified.

The equation to be estimated now becomes one in which growth will depend on bank lending from past period and the list of exogenous variables that are likely to affect growth in the Nigerian economy from past periods expressed below in equation 1.

$$(1.)\ Growth_{t} = \alpha_0 + \alpha_1 bank\ lending_{t-1} + \alpha_2 X_{t-1} + \epsilon_t$$

Where α_0 is a constant, X_t is the vector of exogenous variables which include deposits, interest rate, legal strength, bank losses and money supply and ϵ_t is the error term and captures all omitted variable in the model through the regression intercept. The method of estimation used is the quantile regression estimation technique, which produces robust estimates in the presence of heteroscedastic errors and outliers in the regression response measure. Allowing us to argue, that the model is not likely to suffer from misspecification.

6 Data and sources

All data are obtained from Central Bank of Nigeria and World Development Indicator (WDI) data of the World Bank unless otherwise stated. Times series data is used in this study obtained for the period of 1989 to 2012, twenty three years. Table 1 below also shows the descriptive statistics of all data used in the study.

Tab. 1: Descriptive statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Deposits	23	2661476	3907756	43411.4	1.2300000
Bank losses	23	5665.766	7697.071	73.11	26678.6
GDP	23	585.9815	415.6299	203.4922	1452.095
Strength of Legal Rights	23	108.5478	17.25143	78	127
Bank Lending	22	-2.20000000	3.7700000	-1.5000000000	5.2100000
Interest Rates	22	7.149727	1.802656	3.509	11.06417
Money Supply	23	2.654803	2.203954	.6479998	8.518194

Note: The descriptive statistics are obtained from the summary statistics of variables used in the study

Bank lending is aggregate commercial bank lending to the private sector in constant USD, deposit is the aggregate sum of all yearly customer deposit in Naira in banks obtained from CBN data , nominal interest rates is the average commercial bank lending rate interest in percentages, bank losses are declared losses by banks in Naira obtained from CBN data, FDI is the inflow of all foreign investment to the private sector of the Nigerian economy in constant USD, income is the average GDP per capita in USD, strength legal strength is a measure of judicial effectiveness using score data obtained from the world bank, and money supply is the aggregate money in circulation in constant USD all obtained from World Bank data.

7 Empirical analysis and results

The empirical section of the paper provides logical reasoning why bank lending is likely to have an indirect causal effect on private sector led growth though commercial bank lending to the private sector in Nigeria.

Trends show that bank lending is at an all time low in Nigeria, therefore bank lending is likely to exert a negative effect on private sector led growth. This will be particularly true since it likely that the hostile business environment might have been impeding access to capital by driving up cost of capital making borrowers to be averse to borrowing due to low profits that could accrue capital accessed at high interest rates. The intuitive argument in the study therefore can be stated as follows as

a) The riskiness of the Nigerian business environment is likely to be driving up interest rates and making access to capital to be expensive.
b) Bank lending was probably at an all time low due to private sector aversion to borrowing due to low profit margin that accompany high cost of accessing capital in Nigerian banks.
c) Finally since private sector lending is low, bank lending is likely to have a negative effect on growth since it was preventing private sector expansion and not financing productive capabilities in the real sector.

8 Results

The quantile regression results are presented below. The results of simultaneous quantile regression and bootstrapped quantile regression where the dataset was divided into quantiles to examine the predictive strength of the sample data show that bank lending was not having any significant effect on growth.The results of the quantile regression estimates and the preferred quantile regression wrapper (qreg2) where we control for heteroscedastic error in the growth variable show that bank lending was having a negative effect on growth.The impact of oversight regulation on bank efficiency in driving growth was also having a negative effect on growth. Depicting that instituted internal controls and the Central Banks oversight regulatory activities were not yielding sufficient results to make banks to effectively drive growth in Nigeria. Bank loan losses were having a positive significant effect on growth although this effect was weak. It was probably true since lending was low and bank loan growth that could accumulate to losses was minimal or virtually nonexistent.

Tab. 2: Impact of Bank Lending on Growth in Nigeria

Variables	(1) log gdp	(2) log gdp	(3) log gdp	(4) log gdp
Bank lending	-3.08	-3.08	-3.08***	-3.08**
	(2.60)	(1.98)	(9.30)	(1.14)
Bank deposit	-3.46	-3.46	-3.46	-3.46
	(3.22)	(3.86)	(3.62)	(3.87)
Interest rate	-0.006	-0.00556	-0.00556	-0.00556
	(0.02)	(0.03)	(0.02)	(0.03)
Legal right strength	-0.0451***	-0.0451***	-0.0451***	-0.0451***
	(0.00742)	(0.00979)	(0.00949)	(0.01)
Bank losses	1.77*	1.77	1.77**	1.77*
	(9.87)	(1.05)	(8.21)	(8.88)
Money supply	0.0169	0.0169	0.0169	0.0169
	(0.0432)	(0.0339)	(0.0309)	(0.0346)
Observations	22	22	22	22
R-squared				0.969

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

9 Discussion of results

All the objectives of the study are realized and listed below as follows

a) Commercial lending was not stimulating private sector led growth in Nigeria
b) Institutional quality the measure of oversight regulation in commercial banks was having a negative effect on growth in Nigerian economy
c) Bank losses due to losses resulting from loan growth and defaults due to the riskiness of the Nigerian business environment which were minimal due to non accumulation of loan by the private sector business was positively driving growth.

Commercial banks lending were not having positive effect on economic growth in Nigeria, a host of factors were probably responsible as stated earlier the hostility of the business environment were probably driving up the transaction cost of doing business making interest rates to be high and borrowers to be averse to borrowing due to the high cost of capital that shrinks business profit margins. The results supports past findings by Gale and Hellwig (1985) and Holmstrom and Tirole (1997), who state that credit imperfections in a situation where firms are dependent on bank loans is likely to affect private sector output production through monetary policy which will determine the cost of accessing such capital.

Oversight function were either weak or not properly effected as commercial banks efficiency were also low and having a negative effect on growth. The implication of this is that poor management and lack of effective banking strategies to drive private sector borrowing was probably also impeded by institutional weaknesses both in commercial banks and in the apex regulatory authority the Central Bank and other financial regulatory bodies.

Loan accumulation were very minimal making the likelihood of defaults associated with borrowing to be virtually nonexistent justifying why bank losses were having a positive impact on growth depicting once again that commercial banks were not performing their primary role of borrowing to private sector businesses and not promoting private sector driven growth in Nigeria. This also supports past study by Disyatat (2008) who studied bank lending, and state that banks are risk neutral entities that operate in a competitive environment. This was likely true since the riskiness of the business environment was preventing banks from lending.

10 Conclusion

In the concluding section we discuss the implication of these results for the Nigerian economy in general and make some policy recommendation based on the outcome. Bank lending has to be encouraged to drive private sector growth. It can have strong consequences for growth in Nigeria since this can stimulate domestic market growth and cushion the economy from external shocks that can arise in the global markets due to the volatile nature of the global economy.

Oversight enforcement in commercial banks could also prevent mismanagement of banks and improve their lending capabilities since banks were probably not performing and probably falling short of their primary role of lending and driving growth through lending to private sector that can boost expansion in the private sector.

Loan growth accumulation was also low, this can have strong consequences for the private sector since the current state of poor loan acquisition could lead to business moving to more friendly business environment that are less risky leading to a shrinkage in the size of the private sector and domestic production in general. This could also lead to increase in unemployment rate since many private sector businesses could downsize on manpower when transferring parts of their production overseas or shutting down completely in a bid to operate in less risky environment.

The policy implications of this study is that the current risky business environment is affecting banks ability to lend to the private sector and drive growth, better ways of making the business environment less risky should be evaluated by stake holders. Management of commercial banks have to be tasked with effective management through effective enforcement of internal controls to check fraud and make sure they adhere to strict banking ethics as stipulated by the apex bank, the Central Bank of Nigeria. The issue of poor loan growth is also a concern since businesses are likely to migrate to less riskier environment were the cost of capital is low leading to increase in unemployment and a shrinkage in domestic production capabilities of the Nigerian private sector.

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