Impact of private sector credit on the real sector of Nigeria

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ABSTRACT

The real sector is a strategic component of an economy because it produces and distributes tangible goods and services required to satisfy aggregate demand in the economy. For this reason, there is the need for adequate credit flow from the banking industry to the real sector, which in the Nigerian case, the credit flow has been grossly inadequate. This study is carried out to examine the impact of credit to private sector (CPS) on the real sector of Nigeria with a view to assess the significant contribution of CPS to real sector growth in Nigeria. The study used aggregate time series data from 1986 to 2010, which was drawn from central bank of Nigeria (CBN) statistical bulletin and CBN annual report and statement of accounts. The data was analysed using multiple regression and based on the coefficient of determination (R square), the study reveals a 96.1% variation between the CPS and real sector growth in Nigeria. The study cocludes that there is a statistically significant impact of credit to private sector on the real sector of Nigeria. This, suggest that the performance of the real sector is greatly influence by credit to private sector. The study recommends that the federal government of Nigeria through the central bank of Nigeria (CBN) should enhance the financing of the real sector as well as improve credit flow to the sector because of its strategic importance in creating and generating growth of the economy.

Keywords: credit to private sector, real sector, banking industry, economic growth

1. Introduction

An economy is usually divided into four distinct but interrelated sectors. These are; the real, external, fiscal or government, and financial sectors. Real sector activities include agriculture, industry, building and construction, and services. The sector is strategic for a variety of reasons. First, it produces and distributes tangible goods and services required to satisfy aggregate demand in the economy. Its performance is, therefore, a gauge or an indirect measure of the standard of living of the people.

Second, the performance of the sector can be used to measure the effectiveness of macroeconomic policies. Government policies can only be adjudged successful if they impact positively on the production and distribution of goods and services which raise the welfare of the citizen. Third, a vibrant real sector, particularly the agricultural and manufacturing activities, create more linkages in the economy than any other sector and, thus, reduces the pressures on the external sector. Fourth, the relevance of the real sector is also manifested in its capacity building role as well as in its high employment and income generating potentials (Anyanwu, 2010).

Economic reforms generally refer to the process of getting policy incentives right and/or restructuring key implementation institutions. As part of economic reforms, financial sector reforms focus mainly on restructuring financial sector institutions and markets through various policy measures. As a component of the financial sector, the reforms in the banking sector seeks to get the incentives right for the sector to take the lead role in enhancing the intermediation role of the banks and enable them contribute to economic growth.

Banking sector reforms in Nigeria have been embarked upon to achieve the following objectives, among others: market liberalization in order to promote efficiency in resource allocation, expansion of the savings mobilization base, promotion of investment and growth through market-based interest rates. Other objectives are: improvement of the regulatory and surveillance framework, fostering healthy competition in the provision of services and laying the basis for inflation control and economic growth (Balogun, 2007).

Five distinct phases of banking sector reforms are easily discernible in Nigeria. The first occurred during 1986 to 1993, when the banking industry was deregulated in order to allow for substantial private sector participation. Hitherto, the landscape was dominated by banks which emerged from the indigenization programme of the 1970s, which left the Federal and state governments with majority stakes. The second was the re-regulation era of 1993-1998, following the deep financial distress. The third phase was initiated in 1999 with the return of liberalization and the adoption of the universal banking model.

The fourth phase commenced in 2004 with banking sector consolidation as a major component and was meant to correct the structural and operational weaknesses that constrained the banks from efficiently playing the catalytic role of financial intermediation. Following from the exercise, the aggregate capital of the consolidated banks rose by 439.4 per cent between 2003-2009, while deposit level rose by 241.8 per cent. However, this was not reflected in the flow of credit to the real economy, as the growth rate of credit fell during this period, while actual credit did not reflect the proportionate contribution of the sector to the GDP (Anyanwu, 2010).

The current and fifth phase, was triggered by the need to address the combined effects of the global financial and economic crises, as well banks' huge exposures to oil/gas and margin loans, which were largely non-performing; corporate mis-governance and outright corruption, among operators in the system. This round of reform, therefore, seeks to substantially improve the banking infrastructure, strengthen the regulatory and supervisory framework, and address the issue of impaired capital and provision of structured finance through various initiatives, so as to provide cheap credit to the real sector, and financial accommodation for small and medium-scale enterprises (SMEs) (Anyanwu, 2010).

However, despite the strategic importance of the real sector, and the rapid growth experienced in the financial sector in Nigeria, the financial sector has not impacted positively on the real economy as much as anticipated. Development finance institutions set up for specific purposes, such as agricultural finance, housing finance, trade finance, urban development, did not achieve their stated mandates. Also, credit flow from the deposit money banks to the real economy has been grossly inadequate (Anyanwu, 2010).

An assessment of the National Accounts of Nigeria indicates that the real sector contributes over 60.0 per cent to the gross domestic product (GDP), but attracts only about 40.0 per cent of total credit. Worse still is the case of agriculture which contributes over 40.0 per cent of the GDP but attracts less than 2.0 per cent of total credit. Banks were reluctant to lend for real sector activities for reasons such as poor managerial ability, ability to repay, unfavourable growth prospects in the sub-sector, inherent risk and insufficient collateral (Anyanwu, 2010).

It is against the backdrop of the afore-mentioned problems that this study is carried out to examine the impact of private sector credit on the real sector of Nigeria for the period 1986 to 2011. The main aim of this study is to examine the impact of private sector credit on the real sector of Nigeria. Other objectives of the study are:

i. to examine the relationship between size of financial intermediaries (proxy by total assets) and the growth of the real sector (proxy by the Gross Domestic Product [GDP]) in Nigeria,
ii. to examine the efficiency of banks (proxy by broad money supply [M2]) in financing the real sector in Nigeria.

In order to achieve these set objectives, the following null hypotheses are proposed:

i. that there is no significant relationship between credit to private sector and the real sector in Nigeria;
ii. that there is no significant relationship between the size of financial intermediaries and the real sector in Nigeria; and
iii. that banks in Nigeria are not efficient in financing the real sector.

Therefore, this paper is divided into five sections including this introduction. Section two presents literature, section three describes the methodology, section four the results and discussions, while the last section concludes the study and provides recommendations.

2. Literature review

The Nigerian economy has from the mid-1980s been moving towards increased liberalization, greater openness to world trade and higher degree of financial integration. This policy stance and other reform measures, particularly the banking sector consolidation exercise of 2004/05 have led to enormous build-up of capital from both domestic and cross-border sources. Nigeria is, therefore, a veritable case for investigating the link between finance and growth for at least two reasons. First, there has been considerable increase in the activities of the financial markets prior to the recent global financial crisis, particularly with regard to private sector credit and stock market capitalization. Credit to the private sector, stock market capitalization and the all-share value index were all on the upswing up until the onset of the crisis. Second, Nigeria has an interesting history of financial sector reforms.

Similarly, the importance of banks in generating growth within an economy has been widely acknowledged, for example Schumpeter (1912) cited in Blum, Federmair, Fink, and Haiss (2002) identified bank's role in facilitating technological innovation through their intermediary role. Schumpeter believed that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieve real growth.

The process that facilitates the transferring of the savings of some economic units to others for consumption or investment at a price is generally referred to as financial intermediation (Blum, et al., 2002). For financial intermediation to take place there must be instruments and financial institutions operating together with the objective of bringing about economic development of the country. Financial institutions include banks and non-banks loan suppliers such as finance companies, mortgage lenders, and development finance institutions (DFIs).

However, for the purpose of this study, banks are used to represent financial intermediaries. This is because, in Nigeria, banks account for 87.4% of the financial system assets and 63.6% of the total credit extended to the private sector (King, 2003). Financial intermediation is an important activity in the economy because it allows funds to be channeled from people who might otherwise not put them to productive use to people who will ultimately put the funds to productive uses (Hashim, 2012).

2.1 Theoretical Literature

There is ample theoretical evidence reinforced by a number of empirical works, which supports a positive relationship between financial sector development and growth. Principally, the financial system functions to mobilize and channel financial resources through institutions or intermediaries from surplus economic units to deficit units. A well-developed financial system enhances investment by identifying and funding good business opportunities, mobilizing savings, enabling trading, hedging and diversifying risk, and facilitating the exchange of goods and services. These functions result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn result in economic growth and, by extension, the development of the real sector. An efficient financial system is one of the foundations for building sustained economic growth and an open, vibrant economic system. In the early neoclassical growth literature, financial services were thought to play only a passive role of merely channeling household savings to investors.

However, many later studies have been associated with more positive roles for the financial sector. Schumpeter (1912) in his theoretical link between financial development and economic growth opines that the services provided by financial intermediaries are the essential drivers for innovation and growth. His argument was later formalized by McKinnon (1973) and Shaw (1973), and popularized by Fry (1988) and Pagano (1993). The McKinnon-Shaw paradigm postulates that government restrictions on the operations of the financial system, such as interest rate ceiling, direct credit programs and high reserve requirements may hinder financial deepening, and this may in turn affect the quality and quantity of investments and, hence, have a significant negative impact on economic growth.

Therefore, the McKinnon-Shaw financial repression paradigm implies that a poorly functioning financial system may retard economic growth. The endogenous growth literature also supports this argument that financial development has a positive impact on the steady-state growth (Bencivenga and Smith, 1991; and Greenwood and Jovanovic, 1990, among others). Well-functioning financial systems are able to mobilize household savings, allocate resources efficiently, diversify risks, induce liquidity, reduce information and transaction costs and

provide an alternative to raising funds through individual savings and retained earnings. These functions suggest that financial development has a positive impact on growth.

McKinnon (1973) and Shaw (1973) are the most influential works that underpin this hypothesis and suggest that better functioning financial systems lead to more robust economic growth. McKinnon (1973) considered an outside money model in which all firms are confined to self-finance. Hence, physical capital has a lumpy nature where firms must accumulate sufficient savings in the form of monetary assets to finance the investment projects. In this sense, money and capital are viewed as complementary assets where money serves as the channel for capital formation complementarity hypothesis'.

The debt-intermediation' view proposed by Shaw (1973) is based on an inside money model. He argues that high interest rates are essential in attracting more savings. With more supply of credit, financial intermediaries promote investment and raise output growth through borrowing and lending. Also, King and Levine (1993a) find that higher levels of financial development are associated with faster economic growth and conclude that finance seems to lead growth. Neusser and Kugler (1998) and Choe and Moosa (1999) reach the same conclusion.

More specifically, the roles of stock markets and banks have been extensively discussed in both theoretical and empirical studies. The key findings of studies are that countries with well-developed financial institutions tend to grow faster; particularly the size of the banking system and the liquidity of the stock markets tend to have strong positive impact on economic growth.

2.2 Empirical Literature

A substantial body of empirical work on finance and growth assesses the impact of the operations of the financial system on economic growth, whether the impact is economically large, and whether certain components of the financial system, e.g. banks and stock markets, play a particularly important role in fostering growth at certain stages of economic development.

Patrick (1966), in his work postulates a bi-directional relationship between financial development and economic growth. Ever since, a large empirical literature has emerged to test this hypothesis. Two trends in this respect have emerged in the literature. The first tests the relationship between economic growth and financial development, adopting a single measure of financial development and testing the hypothesis on a number of countries using either cross-section or panel data techniques

The second trend examined the hypothesis for a particular country using time series data/technique, as done by Murinde and Eng (1994) for Singapore; Lyons and Murinde (1994) for Ghana; Agung and Ford (1998) for Indonesia; James and Warwick (2005) for Malaysia, and Hashim (2012) for Nigeria.

Other works by King and Levine (1993a, 1993b); Demetriades and Hussein (1996) and DemirgüçKunt and Maksimovic (1998), structured on the works of Gurley and Shaw (1955), Goldsmith (1969), and McKinnon (1973), employed different econometric methodologies and data sets to assess the role of the financial sector in stimulating economic growth.

The mounting empirical research, using different statistical methods and data have produced remarkable results. First, the results have shown that countries with well-developed financial systems tend to grow faster, especially those with (i) large, privately owned banks that channel credit to the private sector, and (ii) liquid stock exchanges. The level of banking development and stock market liquidity exert positive influence on economic growth.

Second, well-functioning financial systems ease external financing constraints that obstruct firms and industrial expansion. Thus, access to external capital is one channel through which financial development matters for growth because it allows financiallyconstrained firms to expand. In addition, the endogenous growth literature supports the fact that financial development positively affects economic growth in the steady state (Greenwood and Jovanovic (1990); Bencivenga and Smith (1991); Roubini and Sala-I-Martin (1992); Pagano (1993); and King and Levine (1993b); among others).

Over the last two decades, the literature has shown a growing body of new empirical approaches to treating the causality pattern based on time series techniques Gupta (1984); Jung (1986); Murinde and Eng (1994);

Demetriades and Hussein (1996); Arestis and Demetriades (1997); and Kul and Khan (1999). In these studies, the focus is on the long-run relationship between financial sector development and real sector growth, using frameworks of bivariate and multivariate vector auto-regressive (VAR) models for different country samples. The outcome was that the causality pattern varies across countries according to the success of financial liberalization policies implemented in each country and the level of development of the financial sector.

2.3 Nigeria's Private sector credit profile

This sub-section highlights the amount of credit to private sector by the banking sector to selected sub-sectors in the real sector. For example, for the period 2006–2009, total credit to the economy from the banking sector rose from N2,535.4 billion in 2006 to N8,769 billion in 2009 and averaged N5,830.7 billion during the period. Credit to real sector activities, agriculture, solid minerals, manufacturing, real estate, public utilities and communication on the average, accounted for 41.8 per cent of total credit, while general commerce, services and government received the balance of 58.2 per cent (Anyanwu, 2010).

The share of manufacturing in total credit to the economy fell sharply, from 16.9 per cent in 2006 to 10.6 per cent in 2007, before rising to 12.6 per cent in both 2008 and 2009. Manufacturing average share was 13.2 per cent and had the highest credit allocation. It was followed by solid minerals and communication, the shares of which averaged 11.1 and 7.7 per cent, respectively. The average for agriculture was abysmal at 2.1 per cent (Anyanwu, 2010).

Again study by the Central Bank of Nigeri (CBN) in 2010 showed that 24.03 per cent of the total fund requirement of firms came from bank loans and advances. Further analysis shows that funding from the banks accounted for only 14.4 per cent of total funds in 2006, 13.4 per cent in 2007, 18.7 per cent in 2008 and 49.7 per cent in 2009. The result of the survey also gave indications of how real sector enterprises faired in terms of attracting bank credits. The survey showed that banks satisfied an average of only 15.8 per cent of the number of loan requests made by real sector firms in 2006 and 2007, and 26.3 in 2008 and 2009.

In addition, review of some selected real sector indicators provides a picture of the performance of the real sector in the face of the banking sector reforms. Real output growth has been modest over the review period, averaging 6.37 per cent. Growth rates of the agriculture and manufacturing sectors have been relatively stable. Inflationary pressures moderated between 2005 and 2006, before assuming an upward trend for the rest of the period. Average capacity utilization in the manufacturing sector averaged 53.84 per cent for the period (Anyanwu, 2010).

3. Methodology

In this study, the descriptive research design is adopted. Furthermore, the variables of this study are private sector credit and real sector of Nigeria. In addition, the population of this study comprises of the five activity sectors of the Nigerian Real Sector namely, Agriculture, Industry, Building and Construction, Wholesale and Retail Trade, and Services and the twenty five (24) deposit money banks (DMBs). Similarly, this study used aggregate data relevant to the study and relies purely on secondary data collected from e-Books, online journals, textbooks, CBN annual report and statement of accounts, and CBN statistical bulletins.

In order to examine the impact of private sector credit on the real sector in Nigeria, the multiple regression was used to analyse the data gathered for this study. Accordingly, the multiple regression is specified thus:

$$Y= b_0 + b_1x_1+ b_2x_2+ b_3x_3+ Ut$$

Source: Howell (1995).

Where:

Y = estimated value of the dependent variable) growth in the real sector as measured by real GDP growth
b_0 = base constant
b_1-b_3 = regression coefficient
x_1 = credit to private sector
x_2 = size of the financial intermediaries
x_3 = aggregate liquid liabilities (M2)
U_t = error term

The statistical significance of the regression coefficient is based on the appropriateness of the sign of the coefficient of determination (R^2). The regression equation specified above is analysed with aid of Statistical Package for Social Scientists (SPSS).

4. Results and Discussion

This study made use of time series data drawn from CBN annual reports and statement of accounts and CBN statistical bulletin for various years. Therefore, this section present the data collected, interprets, and analyse the data. The hypotheses formulated for the study were also tested and discussed. Finally, the section concludes with the summary of findings for this study. The descriptive statistics for the variables of this study are presented as follows:

Table 1: Nigeria's real GDP (N' billion) 1986-2010

Year	1986	1987	1988	1989	1990	1991	1992	1993	
Real GDP (N)' Billion	205,971.4	204,806.5	219,875.6	236,729.4	267,550.0	265,379.1	271,365.5	274,833.3	
Year	1994	1995	1996	1997	1998	1999	2000	2001	
Real GDP (N)' Billion	275,450.6	281,407.4	293,745.4	302,022.5	310,890.1	312,183.5	329,178.7	356,994.3	
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Real GDP (N)' Billion	433,203.5	477,533.0	527,576.0	561,931.4	595,821.6	634,251.1	674,889.0	716,949.7	775,525.7

Source: CBN Statistical Bulletin (2010) and CBN annual report and statement of accounts for various years

Table 1 above presents data on the real GDP in Nigeria for the period 1986 to 2010. It can be seen from the table that the growth in real GDP has been stable, while in some cases there was an appreciable growth in the real GDP; in others the real GDP growth has been appreciable. For example, between the periods 2006 to 2007, there was a 6.5% growth in real GDP; however the growth in real GDP between the periods 2007 to 2008 was only 6.0%.

Similarly, the growth in real GDP for the periods between the periods 2008 to 2009 was 7.0% showing an appreciable improvement over previous periods. Finally, the periods 2009 to 2010 recorded a 7.9% growth in real GDP, which exceeded the 7.0% in 2009; even though lower than the target growth rate of 10.0 % for the year 2009.

Table 2: Credit to Private Sector (CPS) in Nigeria (N'Billion) 1986-2010

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994
CPS (N)' Billion	18,299.9	21,892.5	25,472.5	29,643.9	35,436.6	42,079.0	79,958.9	95,529.7	151,000.3
Year	1995	1996	1997	1998	1999	2000	2001	2002	2003
CPS (N)' Billion	211,358.6	260,613.5	319,512.2	372,574.1	455,205.2	596,001.5	854,999.3	955,762.1	1,211,993.0
Year	2004	2005	2006	2007	2008	2009	2010		
CPS (N)' Billion	1,534,448.0	2,007,356.0	2,650,822.0	5,056,721.0	8,059,549.0	10,206,086.7	10,157,021.18		

Source: CBN Statistical Bulletin (2010) and CBN annual report and statement of accounts for various years

Table 2 above depicts the aggregate amount of credit extended to the private sector in Nigeria. From the table it can deduce that the growth in the amount of credit extended to the private sector has been on the increase, however the growth in credit has been consistent. For example between periods 1997 to 1998, there was an increase 27.3% in the amount of credit to the private. However, for the periods 2001 to 2002 the amount credit extended to the private sector decelerated by 19.7%.

Another important observation from table 2 is the ratio of credit to private sector to GDP (CPS/GDP), which according Beck, Dermigue-Kunt, and Levine (2000), is a measure of the relative size of the banking system to the size of the economy. Applying this to the Nigerian economy indicates that the relative size of the banking system in Nigeria leaves much to be desired, as for example; the CPS/GDP ratio for the periods 1986 was 26.5%; 1987 was 20.8%; 1988 was 18.3%; 1989 was 13.7%; 1990 was 13.2%; 1991 was 13.5%; 1992 was 15%; 1993 was 14%; 1994 was 16.8%; 1995 was 10.9%; 1996 was 9.6%; 1997 was 11.4%; 1998 was 13.8%; 1999 was 14.3%; 2000 was 13%; 2001 was 18.1%; 2002 was 13.8%; 2003 was 14.3%; 2004 was 13.4%; 2005 was 13.8%; 2006 was 14.3%; 2007 was 24.5%; 2008 was 33.2%; and 2009 was 41.3%.

Table 3: Aggregate Liquid liabilities (M2) in Nigeria (N'Billion) 1986-2010

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994
M2 (N)' Billion	27,389.8	33,667.4	45,446.9	47,055.0	68,662.5	87,499.8	129,085.5	198,479.2	266,944.9
Year	1995	1996	1997	1998	1999	2000	2001	2002	2003
M2 (N)' Billion	318,763.5	370,333.5	429,731.0	525,638.0	699,734.0	1,036,079.0	1,315,869.0	1,599,495.0	1,985,192.0
Year	2004	2005	2006	2007	2008	2009	2010		
M2 (N)' Billion	2,263,588.0	2,814,846.0	4,027,902.0	5,809,827.0	9,167,068.0	10,767,377.8	11,034,940.93		

Source: CBN Statistical Bulletin (2010) and CBN annual report and statement of accounts for various years

Table 3 above presents data on aggregate liquid liabilities (M2) in Nigeria for the period 1986 to 2010. From the table it can be seen that the growth in M2 in Nigeria is inconsistent, as for example there was a growth of 31.4% between the periods 1998 and 1999; and 48.1% for 1999 and 2000. Furthermore, M2/GDP (financial deepening) which is a measure of financial development (CBN, 2008) recorded an unstable growth over the period under consideration. For example, while the ratio was 39.6% in 1986, it dropped to 32.0% in 1987; it further rose to

32.7% in 1988. However, the ratio recorded an improved trend between 1997 from 15.3% and 2001 to 27.8%, before it dropped to 23.1% in 2002. The ratio for 2009 was 43.6% which highest ever recoreded in the country.

Table 4: Deposit Money Banks' (DMBs) Assets in Nigeria (N' billion) 1986-2010

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total DMBs Asset (N)' Billion	39,678 .8	49,828.4	58,027.2	64,874.0	82,957.8	117,511.9	159,190.8	226,16 2.8	295,032. 2
Year	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total DMBs Asset (N)' Billion	385,14 1.8	458,777.5	584,37.5	694,615.1	1,070,019 .8	1,568,839.0	2,247,039.9	2,766,8 80.0	3,047,85 6.0
Year	2004	2005	2006	2007	2008	2009	2010		
Total DMBs Asset (N)' Billion	3,753, 278.0	4,515,118 .0	7,172,932 .0	1,474,211 .0	5,009,804 .0	17,522858.2	17,331,559. 0		

Source: CBN Statistical Bulletin (2010) and CBN annual report and statement of accounts for various years

Table 4 above depicts the data on assets owned by DMBs in Nigeria for the period 1986 to 2010. From the table it can be seen that there was an inconsistent growth in the assets owned by DMBs in Nigeria. As for example there was a growth of 54.4% in assets owned by DMBs between 1998 and 1999. However, only an increase of 10.15% was recorded between 2002 and 2003.

Test of hypotheses

In this sub-section, the hypotheses formulated are tested, the results presented, interpreted, and discussed. The results of the multiple regression are presented as follows:

Table 5: Model Summary b

Model	R	R Square	Adjusted R Square	Std. error of the Estimate
1	.980a	.961	.955	37134.0859

a. Predictors (constant), DMBs assets, CPS, Liquid liabilities
b. Dependent Variable: real GDP

Source: Output of SPSS version 16.0 using data in tables 1-4

Table 6: ANOVA b

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	7.051E11	3	2.350E11	170.450	.000a
Residual	2.896E10	21	1.379E9		
Total	7.341E11	24			

a. Predictors (constant), DMBs assets, CPS, Liquid liabilities
b. Dependent Variable: real GDP

Source: Output of SPSS version 16.0 using data in tables 1-4

Table 7: Coefficients a

Model	Unstandardized Coefficients		Standardized coefficients	T	Sig.
	B	Std. Error	Beta		
1 (constant)	245761.866	10478.436		23.454	.000
CPS	-.199	.027	-3.549	-7.457	.000
Liquid liabilities	.227	.025	4.393	9.217	.000
DMBs assets	.003	.004	.074	.768	.451

a. Dependent Variable: real GDP

Source: Output of SPSS version 16.0 using data in tables 1-4

Interpretation of results

The results in table 5 indicate that the growth in the real sector of the Nigerian economy is predicated by the variables CPS, liquid liabilities, and DMBs assets, with a coefficient of determination of 96.1% (R^2 = .961). Thus, implying that these variables significantly account for 96% variation in real sector growth in Nigeria for the period under study (1986-2010). The remaining 4% is as a result of other factors outside the model which were depicted as U_t (error term). Accordingly, therefore, from the results in table 5, it is shown that the variables (credit to the private sector [CPS], liquid liabilities [M2] and size of financial internmediaries, [DMBs assets]) had significant impact on the real sector in Nigeria.

Also, the significance of the coefficient of determination of the multiple regression results is shown in table 6. The F-statistics indicated a statistically significant impact of credit to private sector on the real sector in Nigeria since the F-statistics calculated stood at 170.450 against the tabulated F-statistics (6.39), at 5% level of significance.

Moreso, table 7 shows the coefficients of the parameter estimate. It can infer from table 7 that the slope of the model (b_o) is statistically significant at 5% level of significance, since the P-value stood at 0.000, which is lower than 0.05. Similarly, the coefficient of beta (b_1) CPS (x_1) indicate a negative relationship with the real sector, but statistically significant result at 5% level of significance with b_1 stood at -0.199 and P-value stood at 0.000, which is lower than 0.05. Thus, arising from this results we reject the null hypothesis which states that there is no significant relationship between credit to private sector and the real sector in Nigeria; and conclude that there is evidence to suggest a statistically significant relationship between CPS and the real sector in Nigeria.

Meanwhile, the coefficient of b_2 liquid liabilities (M2) (x_2), stood at 0.227 and P-value stood at 0.000. At 5% level of significance the results indicate a statistically significant relationship between M2 and real sector in Nigeria, since P-value (0.000) is lower than 0.05. Thus, we reject the null hypothesis and conclude that there is enough evidence to suggest a significant relationship between liquid liabilities (M2) and the real sector in Nigeria.

In contrast, however, the coefficient of the parameter of estimate (b_3=0.003) DMBs assets (x_3) indicates a statistically insignificant results at 5% level of significance since the P-value stood at 0.451 which is greater than 0.05. Hence, we accept the null hypothesis, and conclude that DMBs assets has an insignificant impact on the real sector of the Nigeria. Finally, from the foregoing analysis and the results in table 7, two variables (which were size of CPS and M2) were significant, and one variable (DMBs assets) was insignificant.

Accordingly, therefore, from table 7, the regression equation is:

Real sector growth= $245761.866 - 0.199(x_1) + 0.227\ (x_2) + 0.003(x_3)$

Standard Error= (10478.436) (0.027) (0.025) (0.004)

Findings

From the results of the test of hypotheses and interpretation, this study found the followings; Firstly, there is a statistically significant relationship between credit to private sector and real sector in Nigeria. The implication of this finding is that is showed the relevance of CPS in growing the real sector of the Nigeria. Secondly, there is a statistically significant relationship between liquid liabilities (M2) and the real sector in Nigeria. The implication of this finding is that is showed the relative importance of banks in financing the real sector.

Thirdly, there is an insignificant relation between DMBs assets (which is a measure of importance of banks) and the real sector in Nigeria. The implication of this finding is that the banking sector in Nigeria showed a weak capacity and low level activities of banks to finance the real sector with substantial credit.

Lastly, on the overall, this study found that there exist a 96.1% degree of variation between credit to private sector and the real sector of Nigeria for the period 1986-2010, which implied that credit to private sector account for 96% variation in the growth of the real sector of the Nigeria. The implication of this finding is that for the real sector to grow in Nigeria it depends to a greater extent on credit to private sector.

Conclusions

The empirical results of this study reveal a statistically significant impact of credit to private sector on the real sector of Nigeria. This therefore, suggest that the performance of the real sector is greatly influence by credit to private sector. Another conclusion that can be drawn from the findings of this study is that banks in Nigeria exhibit a low level of activities and a weak capacity to funds to the real sector.

Recommendations

From the foregoing, this study recommends the followings:
Firstly, the federal government of Nigeria (FGN) through the central bank of Nigeria (CBN) should enhance the financing of the real sector as well as improve credit flow to the sector because of its strategic importance in creating and generating growth of the economy. Secondly, the FGN through the CBN should ensure the financial stability of the Nigerian economy. Thirdly, the FGN through the CBN should initiate programmes that would enhance the growth, operation, and quality of banks in Nigeria. And finally, the FGN through the CBN should create financial accommodation for real sector growth through initiatives such as venture capital and public-private-partnership (PPP).

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