

The Effect of Cashless Policy, Saving and Bank Credit on Nigerian Deregulated Economy

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Abstract

This study examines the implications of cashless banking, with a view to exposing the possible challenges and prospects it poses to the Nigerian economy whilst employing aggregated approach. Biases the effects of cashless policy, savings and bank credit on economic growth in Nigeria deregulated economy using deposit money banks as a case study. This study is significant to Nigeria, where carrying raw cash is norm, money laundering and illiteracy is on high. It specifically sought to find out how cashless policy can mobilize and increase total domestic saving by increasing bank credit of deposit money banks injected into the Nigerian economy, and their impact on the country's economic growth as proxies by Gross Domestic Product. Data were collected from secondary sources. The ordinary least square econometric technique was used to analyze the data. The a priori expectation is that bank credit to domestic economy should have a significant positive impact on the growth of GDP. Our findings revealed that the marginal productivity coefficient of bank credit to the domestic economy is positive but insignificant. The implication is that banks credit did not affect the productive sectors sufficiently for the latter to impact significantly on the Nigerian economy. In view of this, the paper recommended that banks should be willing to give both short and long-term loans for productive purposes as there would be more available funds with introduction of cashless policy, as this will eventually lead to economic growth. Also the regulatory body (CBN) should adopt a direct credit control that will be beneficial to the productive sector of the economy.

Keywords: cash less policy, credit, deregulated economy, saving, bank credit

INTRODUCTION

No doubt, the cash-less economy policy initiative of the Central Bank of Nigeria (CBN) is a move that will improve the financial terrain but in the long run, sustainability of the policy will be a function of endorsement and compliance by end users. How will Nigerian politics be in a cash light or cash less economy where carrying of raw cash in 'Ghana-must-go' bags is the order of the day? How will the Nigerian socialite spray his money at parties? How can a big family cope with money for its domestic needs on weekends?

How will the average trader in Alaba market or Main Market, Onitsha, who deals in millions of cash every day, cope with the policy when he has to make huge cash available to respond to quick businesses? How will the illiterate cow seller in the far North buy and sell his cow with the new policy as a cow costs more than the limit set by the Central Bank of Nigeria (CBN)?

A cashless society is a culture where no one uses cash, all purchases being made are by credit cards, charge cards, cheques, or direct transfers from one account to another through mobile banking. The cashless society envisioned here refers to the

widespread application of computer technology in the financial system

At the dawn of January 1, 2012, the pilot scheme of mobile money, one of the financial services introduced by the Central Bank of Nigeria, via a CBN circular Ref. No. COD/DIR/GEN/CIT/05/031 dated 20th April, 2011, to achieve a cashless economy took off in Lagos, the commercial nerve centre of the country. Other financial services under this payment platform are consumer accounts information and updates, alerts, which have been in existence but not widely subscribed to by account holders. Payment of bills, person-to-person transactions and remittances in different forms also form part of the cashless economy drive. With the introduction of the mobile payment, Nigeria is only keying into a fast evolving global payment system. The mobile money platform is a technology driven payment system that will open up several other business opportunities in the economy.

Essentially, mobile money payment system allows users make payments with their GSM phones. It is a savings and transfer system that turns GSM phones into a savings account platform, allowing the owner save money in it and from which withdrawals or

transfers could be made. Under the payment system, customers could do their normal basic financial transactions on a daily basis by making payments for goods and services or by engaging in person-to-person transfer directly on their GSM phones. For instance, the system also allows for payment to be made through a mobile phone after purchases have been made at a supermarket or shopping mall. The shop owner in turn, receives instant payment electronically. Through the system, users can also pay utility bills, school fees, flight and hotel bookings, and house rents, among other transactions, using a mobile phone device. One important thing about mobile money is the fact that it thrives on agency network, thereby taking traditional banking and its cumbersome processes in the cities to the streets in sub-urban areas where accredited mobile money agents also operate.

The cashless Nigerian society, when fully implemented, has many benefits. Some of these benefits include:

- Reduction in money laundering
- Check on terrorist financing
- Effectiveness of the monetary policy
- Creation of more employment opportunities in the financial sector
- Provision of evidence against bribe givers and takers, especially the civil servants and politicians.
- Growth in the real sector of the economy increase saving mobilizations. This is because credit will be available for investors

According to the nation's apex bank, CBN, the new cash policy is introduced into the Nigerian economy for the following reasons:

- (a) To drive development and modernization of Nigeria's payment system in line with Vision 2020 goal of being amongst the top 20 economies by 2010.
- (b) To reduce the cost of banking services (including cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach.
- (c) To improve the effectiveness of monetary policy in managing inflation and driving economic growth.
- (d) In addition, the policy aims to curb some of the negative consequences of high usage of cash, including high cost of handling (estimated to be about N192 billion per annum), high risk of usage and high subsidy.

However, as full implementation of penalty charges on deposit and withdrawal limits takes off, the various e-channels and applications like Automated Teller Machines (ATM), Point-of-Sale (PoS) terminals and mobile banking platforms that are supposed to facilitate electronic transactions have remained largely deficient. There are still fears that ATMs and PoSs are yet to attain the desired

efficiency to drive a cashless economy, maintain a working network and constant connectivity. This development is indeed worrisome, considering the centrality of these electronic banking platforms to the cashless economy drive of the CBN and business owners.

STATEMENT OF PROBLEM

There are several complaints from different quarters that sufficient facilities have not been provided to make the system smooth. The e-payment system is said by many who have tried to use it to be filled with hitches. Sometimes, one is charged for service not successfully rendered. There are, therefore, fears of possible loss of money through fraud.

Meanwhile, information security experts have confirmed that the infrastructure supporting the cashless system in Nigeria may be 60% vulnerable to fraud. This, according to them, is because the system is only 40% protected as only 1% of the operators involved have attained the Payment Card Industry Data Security Standard certification (PCI DSS). This makes it imperative for operators do the PCI DSS certification because by so doing, they will be giving the public the assurance that transactions via their networks are safe.

Major factor behind this policy is the problem of money laundering in Nigeria and the need for the authorities to "follow the money". If this prediction is accurate then the benefits will be tremendous by saving and retaining money in the country, this money is then used for additional developments. It also will reduce the pressure on the Naira.

From aforementioned the paper focused on how the policy can mobilize saving, and there by create bank credits that enhances economic growth

IMPORTANCE OF CASHLESS POLICY

Finance is required for different purposes by different people, organizations, and other economic agents. To provide the needed finance, there are varieties of institutions rendering financial services. Such institutions are called financial institutions. Banks are among such institutions that render financial services. They are mainly involved in financial intermediation, which involves channeling funds from the surplus unit to the deficit unit of the economy, thus transforming bank deposits into loans or 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 obtain credit to purchase seeds, fertilizers, erect various kinds of farm buildings. Governmental 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). According to Ademu (2006), 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 economic 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, disease, or fire. Credit can be garnered to revive such an economic activity that suffered the setback. The banking sector helps to make these credits 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. 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, (McKinnon, 1980 as cited by Adeniyi, 2006).The debate on the intermediary role of banks in the economic development has dominated many discussions in literature. However, there seem to be a general consensus that the role of intermediary role of banks helps in boosting economic development. Akintola (2004) identified banks' traditional roles to include financing of agriculture, manufacturing and syndicating of credit to productive sectors of the economy.

Credit of banks to the Nigerian economy has been increasing over the years. According to Central Bank of Nigeria Annual Report (2007), credit to the core private sector by the Deposit Money Banks grew by 98.7%. Outstanding credit to agriculture, solid minerals, exports and manufacturing in 2007 stood at 3.1, 10.2, 1.4 and 10.1 per cent, respectively. Credit flows to the core private sector in 2007 amounted to N2,289.2billion.

Adekanye (1986) observed that in making credit available, banks are rendering a great social service, because through their actions, production is increased, capital investment are expanded and a higher standard of living is realized. Against this background and given the intermediary role of banks in economic development, this paper examines the extent to which bank credit has impacted on the economic growth of Nigeria.

Early Perspectives on Economic Growth

Credit is the extension of money from the lender to the borrower. 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 units of the economy and passed on to the deficit 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. According to CBN (2003), the amount of loans and advances given by the banking sector to economic agents constitute bank credit. Bank credit is often accompanied with some collateral that helps to ensure the repayment of the loan in the event of default.

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 total domestic bank credit can be divided in to two: credit to the private sector and credit to the public sector. Thus, for this paper, we adopt the definition of credit given by CBN (2003), which is defined above.

Economic growth as a concept is viewed differently by different scholars. This is attributed to the condition prevailing at the time of these scholars. Majority accept it as a Sustainable increase in the level of national income and output of a country over period of time.

According to Dewett (2005), it implies an increase in the net national product in a given period of time. He explained that economic growth is generally referred to as quantitative change in economic variables, normally persisting over successive periods. He added that determinants of economic growth are availability of natural resources, the rate of capital formation, capital-output ratio, technological progress, dynamic entrepreneurship and other factors. Todara 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. Synthesizing insights of these definitions, we define economic growth as the process by which national income or output is increased. Thus, an economy is said to be growing if there is a sustained increase in the actual output of goods and services per head.

THEORETICAL FRAMEWORK

This section examines the various approaches that have been proffered in the theoretic development of the concepts used in this paper. Thus, theoretical issues in financial intermediation and the link with economic growth have been explored.

Theory of financial intermediation 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, Schumpeter (1934), Goldsmith (1969), McKinnon (1973) and Shaw (1973), in their studies, strongly emphasized the role of financial intermediation in economic growth. In the same vein, 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 intermediations 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 various sectors of the economy has influenced economic growth in Nigeria.

Theories of economic growth models in literature are various. However, there is no consensus as to which strategy will achieve the best result. 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, Schumpeterian Theory, Harrod-Domar Theory of Growth, Neo-Classical Model of Growth, and Endogenous Growth Theory. The growth models relevant to this are Neo-Classical Model of Growth, and Endogenous Growth Theory, since these growth models explain the situation in developing economies such as Nigeria, Ghana, etc. Neo-Classical Model of Growth: 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 a long-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 labor supply and an improvement in the productivity of labor 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, Englama, and Odoko (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 attributable 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: Endogenous growth theory or new growth theory was developed in the 1980s by Romer (1986), Lucas (1988), and Rebelo (1991), 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, the free encyclopedia). 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 neoclassical 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 and the stock of human capital.

In an endogenous growth model, Nnanna, Englama, and Odoko (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.

LIMITATIONS OF THE STUDY

The cashless economy is a large component with lot of diverse and sometimes complex parts. This study will only focus on major growth components such as the saving mobilization for investment in infrastructures, income growth and poverty alleviation. This study will cover all the facets that make up the cashless policy, but shall empirically investigate the effect of the major ones. The empirical investigation of the impact of the saving mobilization on the macroeconomic variables in Nigeria

METHODOLOGY

Since its inception, the banking system has been providing credit to the Nigerian economy. In order to examine the role of bank credit to the economy, the aggregate bank credit to the economy is used to estimate its impact on Nigeria’s economic growth, which is proxied by gross domestic product. This credit is classified into credit to the public sector (government) and credit to the private sector (government) and credit to the private sector. This section presents and examines credit to these sectors from 1995 to 2011 with a view to assessing its impact on the growth of the Nigerian economy.

Table 1: Aggregate Domestic Credit Of Deposit Money Banks And Gross Domestic Product (N M)Year

	AGGREGATE DOMESTIC CREDIT TO THE ECONOMY	GROWTH OF AGGREGATE DOMESTIC CREDIT TO THE ECONOMY (%) **	REAL GDP	GROWTH OF REAL GDP (%) ***
1995	48,370.4	-	15,357.2	-
1996	70,546.1	64.5	14,788.1	-3.7
1997	133,085.0	67.3	14,591.4	-1.3
1998	165,109.0	24.1	13,836.1	-5.2
1999	222,456.9	34.7	13,053.4	0.8
2000	280,184.2	25.9	14,010.0	0.4
2001	321,690.8	14.8	13,046.3	-6.9
2002	500,824.7	55.7	13,494.6	3.4
2003	711,820.1	42.1	13,958.8	3.4
2004	944,634.3	32.7	14,935.1	7.0
2005	1,302,219.1	37.9	16,439.4	10.1
2006	1,501,639.7	15.3	17,369.6	5.7
2007	2,077,779.3	38.5	19,436.8	11.9
2008	2,502,924.6	20.5	21,305.1	9.6
2009	3,508,303.0	40.2	23,305.9	9.4
2010	6,529,691.7	86.1	25,535.5	9.6
2011	9,516,550.0	45.7	27,905.0	9.3

- Sources: 1. CBN Statistical Bulletin (2011)
 2. CBN (2012). Statistical Bulletin (Golden Jubilee Edition)
 3. ** Calculated from column 1
 4. *** Calculated from column 4

Data on aggregate domestic credit of deposit money banks reveal that between 1993 and 1994, credit to the economy grew from 64.5 per cent to 67.3 per cent. Between 1995 and 2008, credit to economy fluctuated as follows with 24.1% in 1995, 34.7% in 1996, 25.9% in 1997, 14.8% in 1998, 55.7% in 1999,

42.1% in 2000, 32.7% in 2001, 37.9% in 2002, 15.3% in 2003, 38.4% in 2004, 20.5% in 2005, 40.2% in 2006, 86.1% in 2007 and 45.7% in 2008. The highest growth rate was recorded in 2007, which could be attributed to the gains on post-consolidation of Nigerian Banks. The data in table 1 shows that output represented by real GDP in Nigeria and aggregate credit of DMBs to the economy showed volatile trends. The GDP was low between 1993 and 1995 with a negative growth rate of 3.7%, 1.3%, and 5.2%, respectively. A growth rate of 0.8 was recorded in 1996, which declined to 0.4% and -6.9% in 1997 and 1998, respectively. Output grew steadily between 1999 and 2002 with 3.4% in 1999, 3.4% in 2000, 7.0% in 2001 and 10.1% in 2002. The highest growth rate ever recorded was 11.9% in 2004. Between 2005 and 2008, there were fluctuations in the growth rate of output. This indicated the poor performance of the economy. Percentage growth in output has been insignificant compared to aggregate domestic credit of deposit money banks. This can be attributable to the fact that deposit money banks’ credit is short tenured, which to a large extent may reduce the ability of such credits to impact positively on the economy.

MODEL SPECIFICATION AND ANALYSIS

The econometric model used for assessing the analysis of the data above 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:

H0: Bank credits have not significantly effect on the growth of the Nigeria economy.

H1: Bank credits have significantly effect on the growth of the Nigeria economy.

The functional relationship is specified as: $GDP = F(GADCE)$

The econometric model of this functional relationship is given as:

$$GDP = a_0 + a_1GADCE + U$$

Where a_0 = intercept, a_1 = parameter estimate, $GADCE$ = growth of aggregate domestic credit to the economy, U = unexplained variable.

Given the assumed relationship, based on a priori reasoning between the Gross Domestic Product (GDP), the expected sign for the parameter estimate is:

$$\partial GDP / \partial GADCE = a_1 > 0$$

Thus, a positive relationship is expected between GDP and GADCE, which implies that the higher the aggregate credit of deposit money banks, the higher the gross domestic product.

The regression result is as follows:

$$GDP = 1.764 + 0.0052GADCE$$

$$SE = (3.818) (0.069)$$

$$t^* = (0.585) (0.746) \quad t_{\alpha/2} = 2.13$$

$$F^* = 0.556$$

$$F\alpha = 4.54$$

R = 0.189
R² = 0.036

ANALYSIS

The parameter estimate a_1 , which is the productivity coefficient GADCE is low though it is positive. The low value can be attributed to a larger proportion of GADCE that goes to the government. Most government expenditures are on transfer payment with little impact on productivity. From the standard error $S(a_0) > \frac{1}{2}(a_0)$ and $S(a_1) > \frac{1}{2}(a_1)$, all indicating that the standard error is statistically insignificant. The t-statistics shows that both a_0 and a_1 are statistically insignificant. Thus, the overall model is statistically insignificant as revealed by the low value of F-statistics. The coefficient of determination R^2 shows that only 4% variation in GDP is caused by GADCE, which is too low. Thus, we accept the null hypothesis that $a_0 = a_1 = 0$ and reject the alternative hypothesis that $a_0 \neq a_1 \neq 0$. This means that the credit of deposit money banks had no significant impact on Nigeria's GDP from 1992 to 2008. In other words, the variation in credit of deposit money banks cannot be used to forecast the values of Nigeria's GDP.

POLICY IMPLICATION

It was observed that bank credit has not impacted significantly on the growth of the Nigerian economy. This is attributed to the fact that banks exhibit apathy in lending to the private sector for productive purposes e.g. agricultural sector, as they prefer to lend to the short-term end of the market, e.g. commerce, which attracts quick and high rate of turnover. As a result of this, the volume of loan actually given to investors is insignificant. Furthermore, World Bank (2007) as cited by Dalis (2010) observed that the Nigerian Banks are burdened with excess liquidity but simultaneously very cautious in providing credit to private sector. Excess liquidity exists because financial intermediaries lack investment opportunities with sufficient returns or perceive the risk in intermediating funds to be too great. Weak financial intermediation capacity has limited access to finance for investment. Firms have been forced to rely to a high degree on self-financing large proportion of the total credits of deposit money banks that goes to the government are usually not for productive purposes due to the level corruption and looting of government treasury and most government expenditures are on transfers' payment with little impact on productivity. The oil sector, which dominates the Nigerian economy, has contributed immensely to the GDP of Nigeria, thus banks aggregate credit has little or no significance on the growth of the economy.

In view of these, it is recommended that the cashless policy be enforced so as to:

(a) To drive development and modernization of Nigeria's payment system in line with Vision 2020 goal of being amongst the top 20 economies by 2010.

(b) To reduce the cost of banking services (including cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach. (c) To improve the effectiveness of monetary policy in managing inflation and driving economic growth.

(d) In addition, the policy aims to curb some of the negative consequences of high usage of cash, including high cost of handling (estimated to be about N192 billion per annum), high risk of usage and high subsidy.

Major factor behind this policy is the problem of money laundering in Nigeria and the need for the proper authorities to "follow the money".

Increase the readily available banks credits, monitor the movement of cash available in the economy there by removing fair of great risk associated with loans, with these banks should be willing to give both short and long-term loans for productive purposes, as this will eventually lead to economic growth. Better and stronger credit culture will be promoted and sustained.

These will be strong and comprehensive legal framework that will aid in monitoring the performance of credit to private sector and recovering debts owed to banks. Banks need to also share among themselves; information on bad debtors and each bank should maintain a black book for this purpose. The Central bank of Nigeria should adopt direct credit control, where preferred sectors like agriculture and manufacturing sectors should be favored in terms of granting loans.

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