AN EVALUATION OF THE IMPACT OF BANKING SECTOR REFORMS ON ECONOMIC GROWTH IN NIGERIA (1986 – 2009)

BY

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DECLARATION

I hereby declare that this thesis work is a product of my own research under the guidance and supervision of Professor M. Kwanashie, and Dr. A. R. Sanusi of the Department of Economics, Ahmadu Bello University Zaria. It has not been presented any where for the award of a higher degree. All sources of information have been duly acknowledged in form of references.

DARAMOLA RITA YEMISI

CERTIFICATION

This thesis titled, "An Evaluation of the Impact of Banking Sector Reforms on Economic Growth in Nigerian, 1986 – 2009" **by Daramola Rita Yemisi,** has been read and approved as meeting the requirement for the award of the degree of Masters of Science, of the Department of Economics, Ahmadu Bello University, Zaria.

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DEDICATION

This thesis is dedicated to Almighty God for granting me the grace to begin and complete the work successfully. Also to my husband, Mr. T. A. Daramola and my lovely daughter S. S. Daramola for their immense understanding and support during the course of this programme.

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ABSTRACT

This thesis work examines the effects of banking sector reforms on economic growth in Nigeria from 1986 – 2009. The choice of this period is to enable us focus strictly on the era of liberalization and consolidation of the banking sector. The study employed ordinary least squares (OLS) to estimate a set of disaggregated growth equations in order to properly locate the impact of the banking sector reforms on economic growth, for the four sectors of the economy and GDP. The model is disaggregated into five – equation regression models. The result of the study revealed a positive relationship between banking sector reforms and economic growth. Specifically the findings showed that banking consolidation reform (2004) impacts more positively on economic growth than the banking liberalization (1986) reform. Based on the findings of the study and in recognisition of the key role the banking sector plays in economic growth, the study recommends that, for government to stimulate growth, there should be proper channeling of resources to the real sectors. Government should also ensure strict regulatory measures to regulate the banking sector to improve private sector performance in Nigeria.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

One of the cardinal economic objectives of the developing countries, including Nigeria is to achieve high economic growth that will lead to rapid economic development and reduce poverty and unemployment rate (Bamidele, 1998).

The importance of well functioning financial market in economic growth and development cannot be over emphasized. A growing body of literature finds that the development of financial markets has a positive impact on growth. Through an efficient intermediation process, financial markets improve productivity of investment by channeling funds to the most profitable investment projects, which translate into economic growth (Hammah, 2008). Further evidences that financial institutions are necessary ingredients in the growth process abound (Lewis, 1955; Schumpeter, 1934).

Having realised the crucial roles financial sectors plays in boosting economic growth, the Nigeria governments over the years in a bid to concurrently strengthen the banking sector and enhance viable stable economic growth, have introduced several banking reforms. In 1986, the Nigeria government introduced the liberalization programme and this resulted in an enormous increase in the number of banks. Also in 2004, the banking sector was also consolidated and this reform witnessed such positive changes like relative high capital base; rise in nominal deposit and lending rates; emergence of a variety of financial products and services; and overall improvement in the financial sector infrastructure (Soludo, 2007).

Despite these reported achievements and positive development that characterized these reforms, the Nigerian economy that is blessed with abundant natural resources and potential human resources has been wallowing in severe poverty. It is disheartening to note that in recent times, poverty has become paversive in Nigeria, engulfing an overwhelming proportion of the country's population. Indeed, the country's per capital real income has been declining over the years, it has become very low in recent times and this is why the country has been classified as a low income economy as against its middle income economy in the early post independence era (Obadan, 2003).

It is against this backdrop that it therefore becomes imperative to evaluate the impact of both the liberalization and consolidation banking sector reforms on economic growth in Nigeria.

1.2 Statement of Problem

The Nigerian government having realised that adequate supply of credit to the economy is a crucial factor for growth process, have introduced several reforms to boost the growth of the banking sector thereby boosting the economic growth and reducing the rate of poverty and unemployment in the country. The fact that these various reform efforts have resulted in growth in the number of financial institutions and instruments, it is of paramount importance to note here that, this in itself cannot be taken as evidence of financial growth that is accompanied by growth in the real sector.

Inspite of the numerous reforms, the Nigerian growth rate has been quite discouraging over the years. A quick look at some basic economic indicators confirms this conclusion. The output growth rate as measured by changes in the

real Gross Domestic Product (GDP) has been very volatile. For example, the economy recorded negative growth rate from 1981 - 1984. However, from 1985 to 1990, an average growth rate of 6.3 percent was recorded. Thereafter, economic performance deteriorated with GDP declining to barely 1.0 percent by 1994. Between 1999 and 2002, the GDP growth rate has averaged 3.5, 2003 to 2006, GDP rose to 5.8 percent and 2007 – 2009, an average growth rate of 6.5 percent was recorded. Indeed, the economy is expected to grow by a minimum of 7.0 percent per annum, if the millennium development goal of reducing the level of poverty by half is to be achieved by 2015 (CBN, 2004).

Furthermore, although Nigeria is generally regarded as oil rich economy, the contribution of the oil sector to GDP has not exceeded 14 percent, over the years, while that of non-oil sector still remains very dominant in the overall GDP. In recent times, available data shows that Nigeria especially her non oil economy is declining over the years in productivity as is evident in declining total factor productivity (World Bank, 2006). Overall, the existence of a significant output gap in the economy is incontrovertible.

Therefore, the question whether the reforms programme achieved its ultimate objectives remains an empirical question which this study intends to provide an insight. It is to this end that this research work seeks to measure the impact of banking sector reforms on economic growth in Nigeria.

1.3 Research Questions

Specifically, the study will strive to answer the following research questions:

i. What are the roles of the banking sector in economic growth in Nigeria?

ii. To what extent has the banking sector reforms impact on economic growth in Nigeria?

1.4 Objectives of the Study

The main objective of the study is to ascertain the impact of the banking sector reforms on economic growth in Nigeria. Specifically, the study focuses on the following areas:

i. To identify the roles of the banking sector in economic growth in Nigeria.

ii. To assess measure the impact of the banking sector reforms on economic growth in Nigeria.

1.5 Research Hypothesis

The null hypothesis that is formulated to guide the study will be tested at 0.05% level of significance.

Ho_1: Banking sector reforms do not have significant impact on economic growth in Nigeria

Ha_1: Banking sector reforms have significant impact on economic growth in Nigeria.

1.6 Justification of the Study

The significance of the study is premised on the importance of financial sector to the economic growth. Since the financial sector of any country forms one of the main determinants of economic growth, to neglect such study as the financial sector would be as serious as neglecting the economy itself.

More so, the Gross Domestic Product (GDP) as proxy for standard of living in any economy has been very volatile. It has been agreed by most analysts of Nigerian

economy that its growth path has been extremely unstable, and also shown a long run decline trends (Nnanna, 2004).

This study will provide an insight into the relationship between banking sector reforms and economic growth. It is a departure from previous studies of this kind in that, it will not only look at the impact of banking reforms on the aggregate GDP, but will further look at the effect of banking reforms on some sectors of the economy by disaggregating the GDP.

However, in spite of numerous banking reforms, the performance of the Nigerian non-oil sector has not been impressive. The non-oil economy, over the years has been declining in productivity and competiveness as is evidenced in declining total factor productivity (World Bank, 2006). Overcoming the challenges of non oil sector declining growth calls for evaluating the impact of the banking sector reforms on economic growth in Nigeria.

Further justification for the study is the 2009 episode of financial crisis witnessed in the Nigerian Banking Sector in which eight of its banks were declared distressed (CBN Audit of Banks, 2009). This work therefore, will not only be an empirical contribution to knowledge, but as well serve as blue print to policy makers, operators and regulators in the financial sector on how to transform the Nigerian Banking Sector into one of the safest and fastest growing banking sector among the emerging economies.

1.7 Scope and Limitation of the Study

The study focused on the extent to which banking sector reforms impact on economic growth in Nigeria. It covers the period between 1986-2009 because, it

did not only mark the era of the liberalization and consolidation of the financial system, but also marked the epoch of significant impact of the late 1980s and that of 2004 reforms.

The main limitation of this works is on the model used which made certain assumptions in order to be able to abstract from realities. This process therefore gives room to inexactness in the representation of the true world situation.

1.8 Organization of the Study

This research work is divided into five chapters. The first chapter deals with the introduction, while the second chapter contains the review of related literature both theoretical and empirical issues and the overview of the banking sector in Nigeria. Chapter three focuses on the methodology of the study while chapter four covers data presentation and analysis. Chapter five which is the last chapter discusses and summarizes the findings, draw conclusion and offer recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Issues

Growth has been a major concern for economic theorists for centuries. The fundamental question of economic growth revolves around critical determinants as well as supporting and retarding factors of economic growth, which lies in the complex interaction, among various forces within the economic environment.

Right from Adam Smith's inquiry into the nature and causes of the wealth of nations published in 1776, through the neoclassical growth models, development economics, and the recent extension in the endogenous growth models, understanding economic growth has always been the fulcrum of the economic science (Soludo, 2004).

Kuznets (1971) defined a country's economic growth as a long term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity is based on advancing technology and the institutional and ideological adjustments that it demands. As observed by Ogwumike and Ozughalu (2001), this definition implies that economic growth is synonymous with a sustained rise in national output, provision of wide range of economic goods, presence of improved technology and institutional, attitudinal and ideological adjustments.

The theory of economic growth has been referred to as a long run theory, in the long run; investment is responsible for the creation of more and better capital equipment. By adding to the economy's capital stock, investment raises potential

national income. In the long run, investment has been viewed to be a major cause of rapid economic growth (Lipsey, 1979).

Economic growth has also been viewed to be related to a quantitative sustained increase in the country's per-capital output or income accompanied by expansion in its labour force, consumptions, capital and volume of trade (Jhingan, 2008). As observed by Dike (1991), economic growth is an increase in an economy's capacity to generate more goods and services. He thus defined economic growth to involve or results in an outward shift in an economy's production possibility frontier, this been the aggregate view of economic growth. However, there are two other aspects of economic growth namely, the structural and international aspects. As opined by Dike, the three aspects of economic growth specified above do occur simultaneously and complement each other to generate growth in per capital income.

In general, economic growth can be conceptualized as a sustained increase in real income/output. The Gross Domestic Product (GDP) as proxy for measuring economic growth (Todaro and Smith, 2003).

2.2 An Overview of Economic Growth

The long-run path of economic growth is one of the central questions of economics. In spite of the problems of measurements, an increase in Gross Domestic Product (GDP) of a country is generally taken as an increase in the standard of living of its inhabitants, other things being equal (Dike, 1991).

It is worthwhile to point out here that increases in the output of major sector of an economy such as agricultural, manufacturing, mining and quarrying, among others

as a result of increases in the use of inputs or improvement in technology will bring about significant growth to the economy (Ogwumike and Ozughalu, 2001).

As conceived by Ozughalu (2001), economic growth is very essential for the prosperity of a nation and that is why it is a major macroeconomic goal. Even though economic growth is not a sufficient condition for poverty alleviation/elimination, this indeed is a necessary condition for the reduction/obliteration of the phenomenon. High sustained economic growth is an atmosphere for equitable distribution of income and wealth, and paves the way for the reduction or elimination of absolute poverty and underdevelopment.

As a result of benefits of sustained economic growth discussed above, every country aspires to attain high rates of economic growth, yet a wide disparity exists among countries of the world in terms of levels of attainment of economic growth (Todaro, 1994). While some economies have achieved high rates of economic growth, which have led to enhanced standard of living within such economies, others have performed dismally, attaining little and in some cases nothing in terms of economic growth which translates into very low standard of living in their economies.

Concerns as to the wide disparities of rates of growth, and other social issues related to economic growth has over the years motivated research interest into seeking to explain the factors responsible for the puzzling phenomenon. Growing economies have become an extremely active area of both theoretical and empirical research and that growth theories can be broadly classified into neoclassical and endogenous growth models (McCallum, 1996).

2.3 Theories of Growth

The development of growth models started during the industrial revolution in Europe. The classical economists and Karl Marx live through the period of take-off into sustained growth. Their observations regarding the nature and causes of economic growth are of considerable interest which in later years gave rise to the development of more modern growth models such as the Harrod-Domar model, the Solow neoclassical model, the two gap model and the recent endogenous growth model among others.

2.3.1 Harrod-Domar Theory

The Harrod-Domar growth theory states that the rate of savings and new investment representing new addition to capital stock are major determinants of economic growth (Jhingan, Todaro and Smith, 2003). In this model, capital which is assumed to be the only determinant of growth exhibits fixed coefficient and constant returns to scale.

2.3.2 Kaldor's Theory of Growth and Distribution

This stresses the important roles savings and investment play in bringing about significant economic growth. The Pasinetti's theory of growth and profit, extended the Kaldor's theory, by incorporating in its growth model worker's profit (as returns on their savings). The Passinetti's theory highlighted the importance of saving, investment and technical progress in paving the way for significant economic growth (Jhingan,1997).

2.3.3 The Solow-Swan Theory

A dominant theory of economic growth that has gained so much popularity in recent times is the Solow-Swan growth theory formulated as an alternative to the

Harrod-Domar formulation by adding a second factor, labour, and introducing a third independent variable, technology to the growth equation. Unlike the fixed coefficient and constant returns to scale assumptions of the Harrod-Domar theory, Solow's theory exhibits diminishing returns to labour and capital separately and constant return to both factors jointly. Technological progress becomes the crucial factor in explaining long-term growth, and its level is assumed by Solow and other neoclassical growth theorists to be determined exogenously, that is, independently of other factors (Todaro and Smith, 2003).

2.3.4 Endogenous Growth Theory

The unexplained source of exogenous technology elicited the emergence of endogenous growth models. Technology, according to these models, evolves from the interplay of economic forces. The endogenous growth models extrapolate on the evolution of technology within the mechanics and operations of the economy's production process and the motivation for more ideas to be brought to bear, so as to enhance the benefits arising from production. Thus, technology, the key to economic growth is endogenous because it evolves from the operation of the economy rather than coming from an unknown source outside the economy (exogenous) as espoused by the neoclassical model (Romer, 1986).

By embodying technological change, the new growth theory re-emphasized the role of investment in both physical and human capital for long run term growth. Policies that affect both the level and efficiency of investment increases capital or foster right kind of investment in physical capital and permanently raise economic growth. The new growth theory (endogenous theory) emphasized on promotion of liberal and well developed financial market to provide a flow of liquidity to finance

investment. As argued, a well developed financial market will serve as a basis for other sectors development and pave the way for maximum economic growth, development and welfare (Plosser, 1992).

The foregoing theory implicitly imply that a major determinant of economic growth is financial development which paves the way for optimum savings and investment and the realization of all other major determinants of economic growth.

2.3.5 Model of Endogenous Growth

The endogenous model assumed the absence of diminishing return to capital growth to occur in the long run even without exogenous technological change, anchored on "AK" production function. This provides a channel through which a banking reform that encourages investment in capital could positively affect economic growth even without change in technology.

The AK growth model is sometime termed an 'endogenous growth model. As an extension of the Solow model, the production functions read:

$Y = AK^{\alpha} L^{1-\alpha}$ if we set $\alpha = 1$ and assume A = Constant, we get

$Y = AK$ with $A = \text{constant} > 0$

Assume that saving rate is exogenously given. The capital accumulation equation hence is $\dot{K} = s AK - \delta K$

And growth rate of capital turns out to read $\dot{K} = s A - \delta$. In addition, the growth

rate of output is equal to the growth rate of capital.

$Y = K = s A - \delta$

The key implications in this model are:

i. Growth is endogenous in the sense that we did not revert to an exogenous engine of growth.

ii. The growth rate of the economy depends positively on the saving-investment rate. Hence, any public policy measure that increases the saving rate accelerates economic growth, if such funds are properly diverted to viable investment projects.

iii. Capital is considered to comprise physical as well as human capital

2.4 Finance Theories

The supply leading theory of finance view finance as a process of channeling funds in the form of credit, loans on invested capital to those economic entities that most need them or can put them to the most productive use. Thus, finance facilitates investment and for growth to take place financial institutions must pool savings and direct them to viable investments (Copeland, 1980).

Savings is postulated as an important determinant of finance and in turn savings are affected by the rate of financial intermediation. For instance, where only a handful of institutions provide the service, especially where the environment is not competitive, the amount of saving is likely to be low (Fry, 1980). In order words, underdeveloped financial sector, poor monetary policies including administrative credit allocation and interest rate constrain the amount of savings.

The debt intermediation hypothesis suggests expanded financial intermediation between savers and investors resulting from financial liberalization (higher interest rates) as an incentive to save and invest. This stimulates investment due to an

increase in supply of credit and raises the average efficiency to invest. According to this hypothesis, policies leading to repression of financial markets reduce the incentive to save, thus stressing the importance of free entry into and competition within the financial markets as pre-requisite for successful financial intermediation and its consequent trickle-down effects on economic growth (Shaw, 1973).

Credit is the link through which resources are transferred for capital formation. Evidence supports the hypothesis that credit flows have a positive and statistically significant effect on private investment. Interest rate ceiling is an important tool of monetary policy for many developing countries, and so the quality rather than the price of credit was considered a relevant variable for investment decision. Tighter monetary policy or a change in the composition of credit that favours the public sector reduces private investment. When bank loans are the main source of financing, which is often the case, lower government borrowing releases resources for private investment (Babalola and Odoke, 1996).

Finance which is majorly determined by the level of available savings, credit flow, interest rate, and the rate of inflation can only facilitate investment through a well developed financial institutions, macroeconomic stability and good monetary control instruments.

2.5 Empirical Studies

There is sizeable empirical evidence which has linked economic growth to the ebb and flow of financial system..

A very good attempt was made by Levine et.al. (1997), to establish empirically a relationship between financial sector deepening and economic growth, using cross

country data on financial system developments. The authors found that financial sector deepening exerts a statistically significant influence on economic growth. They also observed that countries with functional legal system and those with good accounting standard tend to have better developed financial system and higher growth performance.

The pathway to economic growth when the financial system is well developed was the subject of interest in a study by Denizer et.al. (2000). Accordingly, the authors found that a developed and efficient financial system would centris-paribus, ensure a long-run high growth rate, by minimizing macro-economic shocks that truncate output growth.

Beck and Levine (2001), analyzed the interactions between stock markets, banks and output performance using panel data involving 40 countries. The objective of the study was to ascertain the relationship between financial system deepening and growth and to assess the independent impact of stock markets and banks on economic growth. Overall, the authors found that stock markets and banks are very crucial for economic growth.

The works of McKinnon and Shaw (1973) made prominent the effect of financial market repression on investment and growth. The general consensus is that low investment efficiency and slower output growth rates are positively associated with repressed financial system. Thus, it is assumed that a liberalized and stable financial system will all things being equal contribute to a rapid and sustained output growth.

Ceccheti and Krause (2001), attempted an investigation of 12 countries, found evidence suggesting that an improvement in the depth of the financial sector and the intermediation process, measured by a less centrally controlled banking system, contributes to the reduction in inflation and output variability. De Gregorio and Guldoth (1995), examined the empirical relationship between the long term growth and the degree of financial development, which was proxy by the ratio of bank to credit to the private sector. They found that this proxy enters positively at a significant level in growth regression on a large cross-section sample, but negatively when using panel data for Latin America.

Beck (2001), in a panel analysis of 63 countries found that though financial intermediaries exert a large positive impact on total factor productivity (TFP) growth, the long run link between financial intermediary development and physical capital growth and private saving ratio are tenors. Ukeje and Akpan (2007) made an empirical investigation of the financial sector development and economic growth in Nigeria. Their work covers the period of 1980-2006. Their result showed that economic growth granger cause financial development.

Onwioduokit (2007), empirically investigated the impact of financial sector development on Nigeria economic growth. He found out that interest rate spread, lending rate and financial deepening granger cause annual growth rates.

Adeoye (2007), made use of modified production function by introducing a series of control variables. He made growth to depend on financial sector development. His result showed that development of financial sector did not satisfy the a priori expectation even though they are statistically significant. He argued that financial

factors and material capital contribute less to growth than human capital since human capital satisfied the a prior expectations and was significant.

In the work of Olugbenga (2009), an attempt was made to explore the link between financial sector reform and economic growth in Nigeria. The result of his regression analysis showed a positive relationship between financial development and economic growth, but explanatory variables were not statistically significant in explaining what happened to economic growth in Nigeria between 1992 – 2006. This result according to him, showed that the growth enhancing efforts of financial development is weak in Nigeria and this may be connected to the fact that, banking crises are more likely to occur in a liberalized financial system where there is little respect for the rule of law and high level of corruption.

Yakubu (2008), empirically investigated financial development and economic growth in Nigeria between 1986 – 2005. His result revealed that the supply of money (M_2) is not significant in explaining the growth rate of GDP and also credit advances to the private sector of the economy does not have much impact on the growth of the GDP as evident by a Naira change in the credit only translate to 0.6%. Based on this result, he concluded that financial development which is supposed to be the bane of the economy has been the major factor impending its growth.

Alao (2007), in his empirical study of the relationship between commercial banks credit and economic growth in Nigeria came out with a regression result that showed a positive relationship between commercial banks credit and economic growth. According to his findings, a N1 increase in commercial banks credit to the real sector will bring about N7.3 increase in output. The high R^2 and F – statistics

of the result pointed out that a significant and positive relationship exists between GDP and commercial banks credit.

Further attempt to measure the impact of the financial sector development on economic growth is an empirical study carried out by Nnanna (2004). The study covered a period of 1981-2002 and ordinary least squares (OLS) estimation technique was used. The result of the OLS showed that, there was no significant relationship between the depth of the financial sector and economic growth in Nigeria. This result according to him was not surprising given the distorted, rudimentary and shallow nature of the financial markets in Nigeria. Financial sector liberalization however, showed a positive relationship with economic growth and was highly significant. It thus, upholds the positive influence of the financial sector liberalization on economic growth.

Generally, there exists a strong linkage between financial sector development and economic growth as pointed out by both theoretical and empirical literature reviewed. Most growth models have come to accept that the ratio of growth of an economy is determined by the accumulation of physical and human capital, the efficiency of resources used and the ability to acquire and apply modern technology (Chenery 1962). In turn, financial development is postulated as an important determinant of investment and therefore of growth.

2.6 Evolution of the Banking Sector in Nigeria

Historically, the Nigerian Banking sector had evolved in four stages. The first stage was the pre-existence of the Central Bank of Nigeria (1930-1959), during which several poorly capitalized and unsupervised indigenous banks failed in their infancy. The second stage was the control regime, (1960-1985), during which the Central

Bank of Nigeria ensured that only "fit and proper" person were granted banking license, subject to the prescribed minimum paid-up capital and in line with the provisions of the Banking Act. The third stage was the post Structural Adjustment Programme (SAP) or decontrol regime (1986-2004), during which the neo-liberal philosophy of "free entry" was over-stretched and banking licenses were dispensed by the political authorities on the basis of patronage. The fourth stage is the era of consolidation (2004 to date) with major emphasis on ensuring a stable, safe and sound financial system through re-capitalization and proactive regulation hinged on risk-based or risk-focused supervision framework (Ibeabuchi, 2008).

2.6.1 The Nigerian Banking Sector Prior to Reforms

The first and second stage of the Banking sector in Nigeria that is from (1960-1985) witnessed improvement in the bank branches from 300 by the beginning of the 1970's to 1,323 by the end of 1985. (See Table2.1).

Table 2.1: Indicators of Commercial Banking Penetration of the Nigerian Economy (1960-1985)

		1960	**1965**	**1970**	**1975**	**1978**	**1985**
	Time and Savings Deposits (%GDP)	2.3	4.2	6.0	7.8	9.0	14.2
	Total Commercial Bank Loans (%GDP)	5.0	9.0	15.8	11.5	19.0	18.3
	Total Commercial Bank Loans (% Gross Fixed Capital Formation)	21.2	22.9	31.8	38.1	28.2	26.7

Source: *CBN, Annual Report, Economic and Financial Review, various issues*

Nevertheless, despite the observed improvement suggested by the data, the development of the Nigerian Banking system remained poor, as evidenced in the spectrum of financial investment assets available to savers, while the institution channels remain narrow and under developed. Also, despite the rather high profile

of the commercial banks in the financial sector, the penetration of the Nigerian economy by commercial banks remains limited both in depth and breadth. Upwards of 70-80% of total bank branches in Nigeria remain located in the urban enclaves despite the rural banking campaign which began in the 1970's. (Dike, 1991).

As concluded by Ibeabuchi (2008), prior to the reforms of 1986, the financial sector in Nigeria was highly repressed. Interest rate administration, selective credit controls, ceilings on credit expansion and use of reserve requirements and other direct monetary control instruments were typical features of the financial sector.

2.6.2 Reforms in the Banking Sector

The concept of reform simply means changes made in a system or organization in order to improve it. Nigeria has interesting history of financial sector reforms. A series of financial restructuring programs aimed at improving the banking sector has been launched since 1986, but it became more pronounced in the early 1990s. Amongst these reforms are the liberalization of the interest rate; the recapitalization directives for banks, mergers and acquisition program, etc.

The liberalization of the banking sector allows the market to function effectively and efficiently, thus promoting the process of rapid growth and development. A liberalized banking sector is devoid of government controls, interventions and regulations in areas such as credit rationing, interest and exchange rates controls and sometimes the imposition of interest rate ceiling or fixing of nominal interest rate ceiling on deposits and prescription of high reserve ratio. Financial liberalization creates an enabling environment for interest rates on financial asset to move and adjust competitively to its market level. This promotes the prospects

for higher savings, investment supply of real credit and thus, the potential for financial deepening.

Banking reforms accompanied by market product diversification makes it possible for banks to perform the important roles of savings mobilization, investment lending, risk management, provision of information about investment opportunities, monitoring borrowers, exerting corporate control and facilitate the exchange of goods and services (Levine, 1997). These collective functions provide the basis for monetary policy transmission channels for achieving macro-economic goals.

The banking sector through reforms is empowered to effectively and efficiently mobilize savings (both from private and public sectors) and channel them through credits to the private sector for viable investment which in turn translate into output growth, this is, what is called Transmission Mechanism. This transmission mechanism is anchored on endogenous growth theory which emphasized on promotion of liberal and well developed financial market which paves the way for optimum savings and investment and the realization of all other major determinanst of economic growth.

Empirical evidences however, have shown that, although savings and investment are the major determinants of economic growth, the level of savings and investments are in turn determined by the structure and nature of interest rate, exchange rate and the rate of inflation in the economy. Therefore, in capturing banking activities during the reform periods, such variables are very crucial to the performance of the banking sector, including money supply, domestic credit, interest rate and investment. These variables serve proxies for banking sector

development, hence, the need to analyze their inpact one after the other during the period under review.

Money Supply

Money supply is the aggregate of all the money that exists in a country's economy system at a particular time. In line with the liberalization policy thrust of SAP, there was a paradigm shift from the hitherto repressive direct monetary control method to an indirect approach anchored on the use of market instruments in monetary management. This enables banks to effectively compete and adequately mobilize savings for investment purpose.

The liberalization of the financial sector in 1986 resulted in the establishment of many new banks. With the relaxation of rules for bank establishment in 1987, the number of financial institutions in the country grew rapidly, with the number of banks increasing from 41 in 1986 to 120 in 1992 (Ibeabuchi, 2008). The competition that resulted from entry of new banks and liberalization of interest rate brought about sharp rise in nominal deposit and lending rates. The average deposit and lending rates doubled in the third year of the reform.

In order to further strength the banking sector for effective saving mobilization is the recapitalization of Domestic Money Banks (DMBs) to a minimum of N25 billion in June 2004. Apart from increases in the size of capital following the re-capitalization that occurred thereafter, there have been improvements in the payment systems with such instruments such as debit and credit cards, mobile payment instruments and Automated Teller Machines (ATMs), now dominating the local payments structure (Asogwa, 2006). Evidence has shown that the full

implementation of the consolidation of banking sector exercise witnessed more than double increase in capital base of Nigerian banks from about US $2.5 billion in June 2004 to about US $5.8 billion at the end of December, 2005 (CBN, 2006).

Also is the introduction of Monetary Policy Rate (MPR) to replace Minimum Rediscount Rate (MRR) with the aim of ensuring stability in short term interest rates to engender efficient liquidity management and encourage interbank trading.

Furthermore, in order to achieve increase in savings during the reform period, the community banks and the people's banks were established to enable rural dwellers and the poor save and have access to credit facilities at rates lower than the market rates. All these structural changes were aimed at enthroning a market-oriented banking system for effective mobilization of savings and efficient resources allocation in the economy.

Domestic Credit

Credit is a link through which resources are transferred for capital formation. Evidence supports the hypothesis that credit flow has positive and statistically significant effect on private investment. Hence, the desire to achieve high and sustainable rate of economic growth require the mobilization of savings that can be channeled into investment. In an attempt to engender credit expansion, banking reforms were initiated to efficiently mobilize savings and divert them through credit to investment which in turn translates into economic growth.

Among the 13-point reform agenda of banking sector in July 2004 is the fine-turning of 2004/2005 guidelines monetary policy and credit guidelines in 2005 in the light of changing macroeconomic environment. New policy measures introduced include two week maintenance period of cash reserve requirement and

the injection/withdrawal of public sector deposit from the domestic commercial banks.

For further expansion of credit, rather than crowding out the private sector in credit allocation, the government has prudently managed its finances such that it increased its deposit with DMBs which resulted in the high percentage of private credit in to total credit in 2006, that however dropped in 2007. Also, as a measure for ensuring credit transfers, Central Bank of Nigeria improved the effectiveness of money transfer mechanism in the banking system as evidenced by reductions in number of days for cheque clearing.

Further, efforts of the banking sector to enhance the effectiveness of credit delivery to the small and medium scale enterprises, led to the establishment of the small and medium enterprise equity investment scheme was established in 2001 to provide improved funding to these enterprises and facilitate the rapid achievement of higher economic growth in the country. Also, in 2002, the CBN rediscounting and refinancing facility was introduced to encourage banks to lend on long term, particularly to productive sectors of the economy. The scheme was designed to provide liquidity support to banks to lend to agricultural and industrial activities.

Interest Rate

Interest rate, a tool used by the monetary authority to regulate the rate of inflation may have negative or positive impact on savings and investment depending on how it's being set.

Interest rates and their structure are of paramount importance in financial markets as they affect capital movement or savings, investment and consumption decision.

It is generally perceived that interest rate play a crucial role in the transmission of monetary policies and economic growth. Thus, it is expected that a low positive real interest rate will engender capital accumulation which if adequately invested would result in economic growth.

Against this backdrop, during the reform period, preferences were given to agricultural and manufacturing sectors to borrow at a preferential lower rate of interest than other sectors in the economy. Available data indicate that the nominal maximum lending rates to these preferred sectors ranged between 3-5 percent during the three decades of interest rate regulation. The objective behind this was to enhance rapid growth in these preferred sectors.

Under the deregulated regime, development of interest rates are generally driven by market forces though subject to some degree, to the changes in the CBN's minimum rediscount rate which is an important monetary policy instrument.

Furthermore, it has been argued that financial liberalization creates an enabling environment for interest rate on financial assets to move and adjust competitively to its market level. The deregulation of interest rate also promotes the prospects for higher saving, supply of real credit, investment and thus the potentials for financial deepening that enhance economic growth.

Investment

Investment can be broadly defined as the acquisition of an asset with the aim of receiving a return (Stiglits, 1993). It could also mean the production of capital goods, that is, goods which are not consumed but instead used in future production. In broad terms, there are two sources of investment finance to the economic, domestic and foreign savings.

However, evidences have shown that a critical factor to sustained economic growth is increased investment activity which can thrive better under a regime of decontrol and low interest rates, to this end is the liberalization of the interest rate in 1986.

The declining return of investment in the mid 1980 led to the introduction of SAP in 1986 with a view to providing stable macroeconomic and investment environment. The interest rates that were previously fixed and negative in real terms were replaced by an interest rate regime which was driven more by market forces. The policy shift de-emphasized direct investment stimulation through low interest rate and encouraged savings mobilization by decontrolling interest rate.

Evidences from the literature have shown that the Nigerian banking sector as a result of these reforms witnessed rapid achievement and positive development. In spite of these, Nigerian economy does not display the same dynamism in terms of growth rates as other leading emerging economies like China, Brazil and India. The Nigerian economy continue to appear particularly vulnerable to external down turn, given its heavy dependency on oil to fund the public sector.

Table 2.2 Nigeria: Lending and Deposit Rates (1975 – 2010)

Year	Nominal Deposit Rate	Nominal Lending Rate	Inflation Rate	Real Deposit	Real Lending
1975	3.00	6.25	42.85	-39.85	-36.60
1976	2.67	6.50	20.00	-17.33	-13.50
1977	2.83	6.00	16.66	-13.83	-10.66
1978	4.15	6.75	21.42	-17.27	-14.67
1979	4.47	7.79	5.88	-1.41	-1.91
1980	5.27	8.43	11.11	-5.84	-2.68
1981	5.72	8.92	25.00	-19.28	-16.08
1982	7.60	9.54	4.00	3.60	5.54
1983	7.41	9.98	26.92	-19.51	-16.94
1984	8.25	10.24	36.36	-28.11	-26.12
1985	9.12	9.43	8.88	0.24	0.55
1986	9.24	9.96	6.12	3.12	3.84
1987	13.09	13.96	9.61	3.48	4.35
1988	12.95	16.62	56.14	-43.19	-39.52
1989	14.68	20.44	50.56	-35.99	-30.12
1990	19.78	25.30	6.71	13.07	18.59
1991	14.92	20.04	13.28	1.64	6.76
1992	18.04	24.76	44.44	-26.40	-19.68
1993	32.42	31.65	57.69	-34.27	-26.04
1994	13.09	20.48	56.91	-43.82	-36.43
1995	13.53	20.23	72.71	-59.18	-52.48
1996	13.06	19.84	29.30	-16.24	-9.46
1997	7.17	17.80	8.19	-1.02	9.61
1998	10.11	18.18	10.29	-0.18	7.89
1999	12.8	20.29	6.67	6.14	13.62
2000	10.6	17.98	6.9	3.7	11.08
2001	10.2	18.29	18.9	-8.7	-0.61
2002	16.25	24.4	12.9	3.35	11.6
2003	13.86	20.48	14.0	-0.14	6.48
2004	12.9	19.15	15.0	-2.1	4.15
2005	10.23	17.85	17.9	-7.67	-0.05
2006	14.05	15.20	8.5	8.20	17.3
2007	13.03	15.05	6.6	8.90	16.9
2008	13.25	18.00	15.1	10.01	17.8
2009	10.09	21.20	13.9	12.72	19.0
2010	15.45	19.10	12.6	12.08	16.11

Central Bank of Nigeria: Economic and Financial Review, Vol.44, No.4, December 2006.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section highlights the methodology used in this study. These include sources of data, technique of data analysis, model specification and estimation techniques and a prior expectations. The mathematical or statistical and econometric tools used to collect, organize and analyze data relevant to the study were also explained.

3.2 Sources and Techniques of Data Analysis

In order to capture the impact of the banking sector reforms on economic growth in Nigeria, annual time series data of secondary nature, from the period 1986 – 2009 were used for the study. These include data on Gross Domestic Product (GDP), money supply, domestic saving in the economy, credit to private sector, interest rate, investment rate and government spending on education (GSE). The data used were obtained mostly from various publications of Central Bank of Nigeria. This study also made use of econometrics tool, an ordinary least squares (OLS) estimation technique to estimate the impact of banking sector reforms on economic growth in Nigeria.

3.3 Empirical Framework of the Model

The framework on which the empirical model is established draws largely on the theoretical stand of the literature, the endogenous growth model, which made capital a major determinant of economic growth which exhibits constant return to scale and diminishing returns to each input and positive elasticity of substitution between inputs.

The ordinary least squares technique is also used to evaluate the impact of banking sector reforms on economic growth in Nigeria from 1986 to 2009, by obtaining the numerical estimates of the coefficients of dummy variables representing reforms in different equations. The ordinary least squares technique is chosen because the stationarity of the variables under consideration have been ascertained. The result of the OLS technique can then be used to validate the model previously developed. It also possesses some basic optical properties and it is an essential component of most other estimate techniques.

In evaluating the impact of banking sector reforms on economic growth in Nigeria, the model is disaggregated into five-equation regression models. In addition to the impact of reforms, we also estimated the impact of broad money supply (M2), loans to deposit (LD) ratio, ratio of domestic investment to GDP (DIV), ratio of domestic credit on private sector to GDP (DC), government spending on education (GSE) as proxy for human capital development and interest rate as proxy by prime lending rate (IR), on Agricultural performance, manufacturing performance, mining performance, services and gross domestic product in general. We also introduced two dummies to capture the impact of SAP and consolidation reforms on GDP. All the variables are in log form, to enable us satisfy some of the assumptions underlying simple regression model. These include normality, homoscedasticity and linearity. Hence it is appropriate to transform variables into log form to make the variables normal, linear and improve the overall model for better fit.

3.4 Model Specification and Estimation Procedures

To examine the impact of banking sector reforms on economic growth, a simple linear growth model is adopted, following the model specified by Ram (1999).

Ram's model assumes constant returns to scale and diminishing returns to each input and positive elasticity of substitution between inputs. The model has Y = AK, where K (capital and labour) has constant marginal product. Where ($M P_K$ = dy/dk = A) hence, long run growth is possible.

The variables considered are the broad money supply (M2), ratio of loans to deposit (LD), ratio of domestic investment to GDP (DIV), ratio of domestic credit on private sector to GDP (DC), government spending on education (GSE) as proxy for human capital development, interest rate as proxy by prime lending rate (IR), and gross domestic product. These are the major determinants of economic growth. The study adopts the ratio of broad money supply to GDP (M_2/GDP) as a proxy for financial deepening. The size of credit that flows from the banking system to the domestic economy (DC), domestic credit to agriculture (DCA), domestic credit to manufacturing (DCM), domestic credit to mining (DCMN), domestic credit to services (DCS) and real interest rate (prime lending rate deflated by inflation) are measures of incentive for investment, and they are included as explanatory variables for economic growth. The ratio of loan/deposit measures the level of financial intermediation in the economy. Since capital comprises both physical and human capital, government expenditure on education is used as proxy for human capital development. We specify our theoretical model as:

$Y = f(X1, X2, X3……Xn)$ ----------3.0

The function can also be represented in a log linear econometric format thus:

$logAGR = \alpha_0 + \alpha_1 log(m2) + \alpha_2 log(dca) + \alpha_3 log(ir) + \alpha_4 log(div) + \alpha_5 log(ld) + \alpha_6 so + \alpha_7 sa + u_{1t}$ ----------3.1

$logMANF = \beta_0 + \beta_1 log(m2) + \beta_2 log(dcm) + \beta_3 log(ir) + \beta_4 log(div) + \beta_5 log(ld) + \beta_6 so + \beta_7 sa + u_{2t}$ ----------3.2

$$\log MIN = \delta_0 + \delta_1 \log(m2) + \delta_2 \log(dcmn) + \delta_3 \log(ir) + \delta_4 \log(div) + \delta_5 \log(ld) + \delta_6 so + \delta_7 sa + u_{3t} \quad \text{----------3.3}$$

$$\log SER = \varphi_0 + \varphi_1 \log(m2) + \varphi_2 \log(dcs) + \varphi_3 \log(ir) + \varphi_4 \log(div) + \varphi_5 \log(ld) + \varphi_6 so + \varphi_7 sa + u_{4t} \quad \text{----------3.4}$$

$$\log GDP = \Pi_0 + \Pi_1 \log(m2) + \Pi_2 \log(ld) + \Pi_3 \log(div) + \Pi_4 \log(dc) + \Pi_5 \log(ir) + \Pi_6 \log(gse) + \Pi_7 so + \Pi_8 sa + u_{5t} \quad \text{----------3.5}$$

Where:

AGR = agricultural performance

MANF= manufacturing performances

MIN = mining performances

SER = services

GDP = gross domestic product

m2= broad money supply

dc = ratio of domestic credit on private sector to GDP

ir = interest rate as proxy by prime lending rate

div = ratio of domestic investment to GDP

ld = ratio of loans to deposit

dca = domestic credit to agriculture

dcm = domestic credit to manufacturing sector

dcmn = domestic credit to mining sector

dcs = domestic credit to services

gse = government spending on education as proxy for human capital

U = stochastic error term

d1 (so) = dummy one to capture impacts of the (2004) banking reform on GDP

d2 (sa) = dummy two to capture impacts of SAP (1986) reform on GDP

All the independent variables are expressed in percentages (%).

3.5 A Priori Expectations

In economic theory, there exists positive or negative relationship between the dependent and independent variables. Hence, it is expected that increase in the parameters of broad money supply (M2), ratio of loans to deposit (LD), ratio of domestic investment to GDP (DIV), ratio of domestic credit on private sector to GDP (DC), government expenditure on human capital (GSE), domestic credit to agricultural sector (DCA), domestic credit to manufacturing sector (DCM), domestic credit to mining sector (DCMN), domestic credit to service (DCS) should have a positive impact on all the dependent variables, while interest rate as proxy by prime lending rate (IR) is expected to have carried a negative sign.

3.6 Unit Root Test

The study utilizes the Dicker-Fuller (DF) and augmented Dicker-Fuller (ADF) regressions to perform the unit root tests for the variables: broad money supply (M2), ratio of loans to deposit (LD), interest rate as proxy by prime lending rate (IR), ratio of domestic investment to GDP (DIV), ratio of domestic credit on private sector to GDP (DC), government spending on education (GSE) and gross domestic product (GDP). Also are GDP components AGR, MANF, MIN, SERV sectors. The entire variables where first logged before carrying out the stationary test. The essence of this is to make the variables normal and make the model a better fit. Here, the observations are firstly tested at levels. To know whether the data is stationary, the values of ADF statistics are compared with the Mackinnon critical values. If an ADF value is greater than Mackinnon critical value at choosing levels

of significance, say 5%, then we reject the null hypothesis of non-stationary and conclude that the data is stationary. In other word, if the series is I(1), it is deemed to have a unit root or it follows a random walk process. This situation does not arise if its first difference is I(0). It is termed stationary. Naturally, the ADF test is performed by testing o = 0 against the one-sided alternative, o > 0.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESULTS

4.1 Introduction

This chapter deals with the presentation and analysis of results and findings of an evaluation of the impact of banking sector reforms on economic growth in Nigeria between 1986 to 2009. We present and analyze findings of unit root test and ordinary least squares in a segregated form by looking at the impact of banking sector reforms on four components of gross domestic product and also on gross domestic product in general.

4.2 Stationary Test (Augmented Dickey Fuller)

To apply any econometric techniques, the variables must be subjected to unit root test. This is to avoid misleading results. In performing the stationary test, we used a maximum lag of 2, and excluded only trend. We used the Augmented Dickey Fuller (ADF) test to find the existence of unit root in each of the time series. The result shows that the variables were not stationary in levels except mining sector contribution to GDP 1 (0). Broad money supply, ratio of domestic investment to GDP, ratio of domestic credit on private sector to GDP, human capital proxy by expenditure on education and agricultural contribution to GDP, services sector contribution to GDP, interest rate, domestic credit to agriculture (DCA), domestic credit to manufacturing (DCM), domestic credit to mining (DCMN), and domestic credit to services (DCS) were stationary at first difference 1 (1), while gross domestic product as proxy for economic growth was stationary at second difference 1 (2) as indicated in Table 4.1.

TABLE 4.1: STATIONARY TEST RESULTS

	ADF	1% CV	5% CV	10%CV	Remarks
LOG(GDP)					
Level	-1.917533	-2.6819	-1.9583	-1.6242	1(2)
1st difference	-1.371489	2.6889	-1.9592	-1.6246	
2nd difference	-3.954888	-2.6969	-1.9602	-1.6251	
LOG(AGR)					
Level	-0.306171	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.716940	2.6889	-1.9592	-1.6246	
LOG(MANF)					
Level	-0.287544	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.096053	2.6889	-1.9592	-1.6246	
LOG(MIN)					
Level	2.588884	-2.6819	-1.9583	-1.6242	1(0)
LOG(SER)					
Level	0.660180	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-5.297222	-2.6889	-1.9592	-1.6246	
LOG(M2)					
Level	0.543671	2.6889	-1.9592	-1.6246	1(1)
1st difference	-4.172258	-2.6969	-1.9602	-1.6251	
LOG(IR)					
Level	0.090016	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.281722	2.6889	-1.9592	-1.6246	
LOG(DIV)					
Level	-0.163544	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-5.093103	2.6889	-1.9592	-1.6246	
LOG(LD)					
Level	-0.066369	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-4.786117	2.6889	-1.9592	-1.6246	
LOG(DCA)					
Level	-0.112535	-2.6819	-1.9583	-1.6242	1(1)
1st difference	2.965456	2.6889	-1.9592	-1.6246	
LOG(DCM)					
Level	-0.0143245	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.175435	2.6889	-1.9592	-1.6246	
LOG(DCMIN)					
Level	-0.874344	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-4.356774	2.6889	-1.9592	-1.6246	
LOG(DCSER)					
Level	-0.135675	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.634578	2.6889	-1.9592	-1.6246	
LOG(DC)					
Level	-0.925474	-2.6819	-1.9583	-1.6242	1(1)
1st difference	-3.473126	2.6889	-1.9592	-1.6246	

4.3 Regression Results and Analysis

The equations (3.1, 3.2, 3.3, 3.4, and 3.5) in chapter three were estimated using econometric Eview (version 4.0) and the results were presented below for the impact of banking sector reforms on economic growth in Nigeria from 1986 to 2009. The regression was estimated by disaggregating the Gross Domestic Product into four sectors and the following equations were obtained.

ΔlogAGR = 5.68 - 0.04Δlog(m2) – 0.005Δlog(dca) – 0.06Δlog(ir) + 0.03Δlog(div) – 0.37Δlog(ld) +

t = (3.20) (-0.33) (-0.05) (-0.24) (0.19) (-1.68)

0.12Δ(so) + 0.05Δ(sa)----------4.1

(0.60) (0.19)

R^2 = 0.24, R^{-2}= -0.19, D.W= 1.04, F=0.666

gMANF = 2.89 + 0.04Δlog(m2) + 0.04Δlog(dca) + 0.16Δlog(ir) - 0.03Δlog(div) + 0.19Δlog(ld) +

Δlo

t = (5.29) (1.27) (1.70) (2.02) (-0.44) (2.77)

0.06Δ(so) + 0.12Δ(sa)----------4.2

(-1.01) (1.60)

R^2 = 0.63, R^{-2}= 0.46, D.W= 1.73, F= 3.64

ΔlogMIN = 3.09 + 0.05Δlog(m2) + 0.06Δlog(dca) + 0.14Δlog(ir) - 0.13Δlog(div) + 0.06Δlog(ld) +

t = (7.19) (1.76) (3.12) (1.93) (-1.62) (0.89)

0.001Δ(so) - 0.01Δ(sa)----------4.3

(0.01) (-0.11)

R^2 = 0.96, R^{-2}= -0.93, D.W= 2.32, F= 43.40

ΔlogSER = 1.63 + 0.14Δlog(m2) + 0.10Δlog(dca) - 0.34Δlog(ir) - 0.28Δlog(div) + 0.19Δlog(ld) -

t = (057) (0.75) (1.74) (-0.76) (-0.85) (0.45)

0.19Δ(so) - 0.07Δ(sa)----------4.4

(-0.54) (-0.31)

R^2 = 0.38, R^{-2}= -0.09, D.W= 1.99, F= 1.29

Δ^2logGDP = 12.16 + 0.15Δlog(m2) + 0.09Δlog(ld) + 0.14Δlog(div) + 0.06Δlog(dc) + 0.08Δlog(ir) -

t = (13.30) (1.96) (0.64) (1.21) (0.46) (0.44)

0.01Δ (gse) + 0.22Δ(so) - 0.33Δ(sa)----------4.5

(-0.10) (1.77) (-3.97)

$R^2 = 0.89$, $R^{-2} = 0.83$, D.W=1.20, F= 14.05

4.4 INTERPRETATION OF RESULTS

4.4.1 Agricultural Sector and Banking Reforms

The OLS regression estimation in equation 4.1 shows negative signs for all the variables except for the ratio of domestic investment and the dummies. This implies that, a rise in any of the explanatory variables except ratio of domestic investment to GDP and dummies will lead to a fall in agricultural performance, and are not statistically significant. This finding is not consistent with theoretical expectation. Broad money supply, domestic credit to agriculture, loan to deposit ratio are expected to carry positive signs but are negatively related. The results of the dummies indicate that, the effect of the banking consolidated reform of 2004 (so) and that of banking liberation (sa) on agricultural performance are positive but statistically insignificant. This means that, as expected the reforms have positive impact on agricultural performance in Nigeria. The R^2 (0.24), this implies that only 24% of variations in agricultural performance is explained by the explanatory variables. This is very low, hence not a good fit, therefore lesser confidence can be imposed on its value as a diagnostic statistics. The F-statistic is 0.67, this is also very low hence, not significant. The DW statistic (1.036) suggests the presence of serial correction.

In view of the above, it shows that the explanatory variables combined together do not impact on agricultural performance during the period under review. One possible reason for this in Nigeria could be the refusal of banks to grant loans to

the agricultural sector except under the Agricultural Credits Guarantee Scheme (ACGS) which is independent of interest rate changes and money supply, therefore changes in money supply and interest rates can therefore be expected not to have any influence on the agricultural sector performance.

In addition, there are some constraining factors hindering the growth of agriculture in Nigeria, these include inadequate and untimely distribution of fertilizers, dearth of processing and storage facilities, poor rural road networks, an inefficient transportation system and poor weather condition.

Furthermore, we must sound some cautions on the model itself, since the presence of autocorrelation and multicollinearity may render the inferences from the model invalid, since the standard errors may be biased.

4.4.2 **Manufacturing Sector and Banking Reform**

The empirical result in equation (4.2) shows that all the explanatory variables except interest rate and domestic investment had the expected signs; in line with theoretical expectations. The parameters were significant except domestic investment and money supply. A rise in the entire explanatory variables except interest rate and domestic investment will lead to growth in manufacturing sector. The SAP reform (banking liberalization) and banking consolidated reform impact positively on manufacturing sector as indicated by dummies, but are not statistically significant. That is, on the average, the manufacturing sector increased by 0.06% and 0.12% respectively after the banking liberalization and banking consolidation reforms. The R^2 (0.63) indicated a good fit, with banking components explaining 63% of variations in the manufacturing sector. The F-statistic (3.64) is low depicting a low or weak relationship between manufacturing sector and

Banking sector reforms. The DW (1.73) indicates presence of serial correlation, this occurs when the stochastic error term is correlated with itself overtime.

In spite of the consistency of empirical results with theory as indicated in equation (4.2), the performance of the manufacturing sector in Nigeria is still below expectation. Some of the impediments to growth in the manufacturing sector in Nigeria include inadequate financial support, the massive importation of finished goods which engendered unfair competition and resulted in the closure of several local manufacturing plants, smuggling and dumping of prohibited goods, the proliferation of fake and substandard products, multiple taxes and levies. Other constraining factors include poor infrastructures particularly epileptic power supply and phenomenal increase in the pump price of diesel which is used extensively in private power generation and manufacturing production.

4.4.3 **Mining Sector and Banking Reforms**

The findings in equation (4.3) show that all the parameters had the expected signs except interest rate and domestic investment. These are in line with theoretical expectations. The parameters were significant at 5% level except domestic investment and ratio of loans to deposit. The dummy variables indicate that only banking consolidated reform of (2004) impacts on mining sector performance positively. That is, the reform improves mining sector performances while the banking liberalization reform variable was inversely related to mining sector performances. The R^2 (0.96) implies goodness of fit of the regression line since it shows that 96% of the variation in mining performance is explained by explanatory variables during the period under review. The F-statistic (43.40) is significant, which implies that, all the explanatory variables combined are significant in

explaining what happened to mining sector performance during the period under review.

The DW statistic (2.32) suggests no serial correlation between the variables since the value falls within the accepted region of null hypothesis of no autocorrelation.

Despite the positive impact of banking consolidated reforms on mining sector as indicated by the empirical results, the mining sector performance in Nigeria is still far below expectation. The mining sector (crude oil and gas) in Nigeria may be constrained by several factors, among these are, the systematic leakages and rent-seeking, political interference and fluctuations in the crude oil prices. Also, constraining the mining sector performance, especially the solid minerals are paucity of funds, flooding of mineral sites and equipment obsolescence.

4.4.4 **Service Sector and Banking Reform**

The empirical result in equation (4.4) showed that the coefficients of broad money supply (0.14), ratio of loans to deposit (0.19), and domestic credit to agriculture (0.10) carry positive signs; these are in line with a priori expectations. This implies that a 1% rise in any of the banking sector reform variables will lead to increase in service sector performance. The negative sign of the interest rate coefficient is in line with a priori expectation but not significant. The negative signs of the dummy variables indicate that the reforms do not impact on service sector performance. The R^2 (0.38) is very low, hence not a good fit because only 38% variation in service performance is been explained by the explanatory variables. The F-statistic (1.29) is also very low; hence not significant this implies that the explanatory variables combined cannot explain what happened to service sector. The DW

statistic (1.99) suggests the absence of autocorrelation, since the value is close to two.

The empirical results indicates that the banking reforms of 1986 (banking liberalization) and that of 2004 (banking consolidation) has a negative impact on the growth in the service sector. Some of the reasons for this especially in the transportation sector could be the rising prices of aviation fuels, rising operational costs, as well as increases in the average fares charged.

Overall Effect of the Banking Reforms on the Economy (GDP)

To test the impact of banking sector reforms on economic growth in Nigeria is the OLS regression result in equation (5). The empirical result shows that a 1% rise in money supply would induce 0.15% rise in GDP and the variable is statistically significant, this is in line with theoretical expectation. With this positive relationship, one would have expected the various efforts to increase the level of money supply to have sparked up economic growth; instead the GDP has been very unsteady and declining overtime. One possible reason for this in Nigeria could be the attitudes of banks towards given long term loans. Banks in Nigeria prefer financing short term projects with prospect for quick loan recovery because of fear of default. The prevalence of short term portfolio has been the cause of the slow development of the Nigerian real sector.

The coefficient of loans to deposit ratio is positive but not significant. This implies that a 1% rise in ratio of loan to deposit would lead to 0.09% rise in GDP. The ratio of loan to deposit as a measure of level of financial intermediation showed a positive relationship with economic growth.

The coefficient of domestic investment is positive; this is in line with a priori expectation but not significant in explaining economic growth. A 1% rise in domestic investment would induce GDP by 0.14%. The insignificant relationship between domestic investment and economic growth could be attributed to the poor lending attitudes of the banks as well as banks portfolio management to meet liquidity for prudential purposes. This means that less money would be available to banks for lending operations. In addition are the high lending rates, multiplicity of interest rates; and a variety of banks' charges that have compounded the interest rates which banks charge their customers. All these will further worsen the investment climate as the rental cost of capital will be too high for investors and as such negative effects on the non-oil sector. The implication is that the prevailing interest rate structure in Nigeria encourages investment in commerce to the detriment of productive activities which are expected to propel growth. Investment may also be slowed down due to the low level of inflow of Foreign Direct Investment (FDI) into the country resulting from macroeconomic and socio-political instability.

The coefficient of domestic credit showed positive relationship between domestic credit and economic growth but not statistically significant. This insignificant relationship may be explained by the low level of credit to the private sector occasioned mostly by the crowding out effect as a result of government competition for credit and which ultimately undermines the efficiency of credit resource utilization.

The coefficient of interest rate is positive; this is not in line with a priori expectation. The positive sign of the coefficient of interest rate indicates that a rise in interest rate would lead to increase in GDP, this is not consisted with

theoretical expectation of inverse relationship. The direct relationship between interest rate and GDP may be traced to the structure of interest rate in Nigeria. Interest rate, a tool to regulate the rate of inflation has never been set to promote investment growth in Nigeria. Also, government spending on education as proxy for human capital showed a negative sign and not significant. This is not in line with theoretical expectation. The insignificant relationship between expenditure on education and economic growth may be due to employment of inappropriate human capital and misappropriation of funds allocated to educational sector thereby making expenditure on education a poor proxy for human capital in Nigeria. The coefficient of the dummy variable (so) is positively signed, this implies that banking consolidation reform (2004) has impacted positively on economic growth, while the coefficient of the dummy variable (sa) is negatively signed, implying that the banking liberalization reform (1986) negatively affected the economy during the period under review.

The R^2 (0.89) indicated a good fit since it shows that 89% of the variation in economic growth is explained by banking sector component. In the same vein, the F-statistic (14.09) is high, this is significant and it is an indicative of the overwhelming significance of the R^2 and the overall integrity of the estimated regression model. The DW statistic (1.19) is low; it implies the presence of serial correlation, that is, the stochastic error term is correlated with itself over time.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This research work is aimed at evaluating the impact of banking sector reforms (the 1986 and the 2004) on economic growth in Nigeria using data between 1986 and 2009. Economic theory suggests that, through an efficient intermediation process, financial markets will improve productivity of investment by channeling funds to the most profitable investment projects, which translate into economic growth.

The crucial roles financial sectors plays in boosting economic growth can not be over emphasized, hence successive Nigerian governments over the years in a bid to concurrently strengthen the banking sector and enhance viable stable economic growth, have introduced several banking reforms. In 1986, the Nigerian government introduced the liberalization programme and this eventually resulted in an enormous increase in the number of banks. Also, in 2004, the banking sector was also consolidated and this reform witnessed such positive changes like relative high capital base; rise in nominal deposits and lending rates; emergence of a variety of financial products and services; and overall improvement in the financial sector infrastructure.

The study employed the ordinary least square (OLS) as a technique of analysis to evaluate the impact of banking sector reforms on economic growth in Nigeria. The model was disaggregated into five equations each capturing a sector of the economy. The finding revealed that the coefficients of ratio of loans to

deposits, domestic investment and domestic credit are all positive, in line with a prior expectation. This implies that a rise in any of these banking sector variables would lead to increase in GDP. Only broad supply variable is statistically significant, while others are insignificant in explaining economic growth.

The OLS result showed that banking sector reform is significant in explaining what happened to agricultural, manufacturing, and mining sectors performance during the period under review, but not significant in explaining service sector performance. Overall the findings showed that banking consolidation reform (2004) impact more positively on economic growth than the banking liberalization (1986) reform.

5.2 Conclusion

The study is based on the analysis of the impact of banking sector reforms on economic growth in Nigeria. The findings of the study revealed that most of the explanatory variables had the expected signs, which is in line with theoretical expectations. The t - test on the other hand, revealed that most of the explanatory variables measured were not significant in explaining the performance in some of the sectors under review.

In addition, the positive signs of 1986 and 2004 reforms on agricultural and manufacturing sectors indicate a positive relationship, although not statistically significant in explaining the sectors' performances. The negative signs of the two reforms on service sectors is an indication of inverse relationship and not significant.

Overall, the consolidation reform of (2004) revealed to some extent a positive impact and also significant as pointed out by the results. The liberalization reform of (1986) did not to have any positive impact on economic growth.

However, empirical evidences emanating from the study suggests that, despite the recent development in the banking sector, it still made minimal contribution to economic growth. It is very important to note here that, despite the positive relationship between the banking sector development and economic growth, the targeted growth may not be achieved unless there is a proper measure in tailoring the available resources into the desired sector. Other factors constraining growth despite development in the banking sector may include inadequate macroeconomic framework, poor infrastructure and un-conducive environment amongst others.

In conclusion, since the banking sector is an important component of the economy, efforts should be made to redress these inhibiting factors, thereby creating an enabling environment for its viability to further enhance its contribution to the overall development of the Nigeria economy.

5.3 **Recommendations**

To further enhance the performance of the banking sector and its positive contributions to economic growth in Nigeria, the following recommendations have been proffered.

In other to enhance growth in the non – oil sectors, there should be proper channeling of resources to such sectors, as agriculture and manufacturing sectors, which will go a long way in increasing the growth of the GDP as a proxy for economic growth.

Government should ensure strict regulatory measures through the use of its monetary policies to regulate the banking sector. The Central Bank of Nigeria, through the use of its credit control instruments should regulate the interest rates to enable the private sector borrow at a moderate rate thereby enhancing investment, which in turn leads to economic growth.

Government should also tackle the problem of infrastructure decay such as power supply, road networking and communication to improve private sector performance.

Finally, sustainable investment in Nigeria calls for high domestic savings in both public and private sectors, which if properly channelled to the productive sectors will lead to increase in investment which will further translate into growth in the economy.

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APPENDIX A

1. GDP and Banking Reforms

Dependent Variable: LOG(GDP)
Method: Least Squares
Date: 11/07/11 Time: 11:26
Sample(adjusted): 1987 2009
Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.15724	0.914243	13.29760	0.0000
LOG(M2)	0.145702	0.074312	1.960684	0.0701
LOG(LD)	0.092619	0.145401	0.636987	0.5344
LOG(DIV)	0.137622	0.113994	1.207270	0.2473
LOG(DC)	0.015687	0.034148	0.459400	0.6530
LOG(IR)	0.083575	0.189965	0.439952	0.6667
LOG(GSE)	-0.012952	0.126021	-0.102774	0.9196
SO	0.223586	0.126561	1.766623	0.0991
SA	-0.328421	0.082730	-3.969812	0.0014

R-squared	0.889273	Mean dependent var	12.92183
Adjusted R-squared	0.826001	S.D. dependent var	0.273394
S.E. of regression	0.114041	Akaike info criterion	-1.218343
Sum squared resid	0.182075	Schwarz criterion	-0.774019
Log likelihood	23.01094	F-statistic	14.05470
Durbin-Watson stat	1.197120	Prob(F-statistic)	0.000018

2. AGR and Banking Reforms

Dependent Variable: LOG(AGR)
Method: Least Squares
Date: 02/21/12 Time: 18:09
Sample(adjusted): 1987 2009
Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.680151	1.772552	3.204505	0.0059
LOG(M2)	-0.033796	0.102948	-0.328283	0.7472
LOG(DCA)	-0.004846	0.092743	-0.052253	0.9590
LOG(IR)	-0.061063	0.247391	-0.246826	0.8084
LOG(DIV)	0.033924	0.177137	0.191512	0.8507
LOG(LD)	-0.377753	0.224581	-1.682033	0.1133
SO	0.115329	0.191374	0.602638	0.5558
SA	0.044600	0.225892	0.197438	0.8461

R-squared	0.237174	Mean dependent var	3.542114
Adjusted R-squared	-0.118812	S.D. dependent var	0.166867
S.E. of regression	0.176502	Akaike info criterion	-0.362758
Sum squared resid	0.467296	Schwarz criterion	0.032197
Log likelihood	12.17172	F-statistic	0.666245
Durbin-Watson stat	1.036170	Prob(F-statistic)	0.697340

3. MANF and Banking Reforms

Dependent Variable: LOG(MANF)
Method: Least Squares
Date: 02/21/12 Time: 18:23
Sample(adjusted): 1987 2009
Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.897628	0.547459	5.292870	0.0001
LOG(M2)	0.043647	0.034235	1.274909	0.2217
LOG(DCM)	0.042657	0.025033	1.704038	0.1090
LOG(IR)	0.154995	0.076674	2.021476	0.0614
LOG(DIV)	-0.025641	0.058710	-0.436741	0.6685
LOG(LD)	0.193369	0.069754	2.772152	0.0142
SO	-0.061610	0.060923	-1.011283	0.3279
SA	0.120603	0.075605	1.595166	0.1315

R-squared	0.629572	Mean dependent var	4.978817
Adjusted R-squared	0.456705	S.D. dependent var	0.075384
S.E. of regression	0.055564	Akaike info criterion	-2.674337
Sum squared resid	0.046311	Schwarz criterion	-2.279382
Log likelihood	38.75487	F-statistic	3.641954
Durbin-Watson stat	1.725414	Prob(F-statistic)	0.016954

4. MIN and Banking Reforms

Dependent Variable: LOG(MIN)
Method: Least Squares
Date: 02/21/12 Time: 18:30
Sample(adjusted): 1987 2009
Included observations: 22
Excluded observations: 1 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.085726	0.429148	7.190355	0.0000
LOG(M2)	0.050644	0.028787	1.759291	0.1004
LOG(DCMI)	0.063202	0.020211	3.127144	0.0074
LOG(IR)	0.139623	0.072355	1.929707	0.0742
LOG(DIV)	-0.127903	0.078779	-1.623576	0.1268
LOG(LD)	0.055452	0.061916	0.895602	0.3856
SO	0.001000	0.072643	0.013761	0.9892
SA	-0.010167	0.093337	-0.108933	0.9148

R-squared	0.955948	Mean dependent var	4.872466
Adjusted R-squared	0.933922	S.D. dependent var	0.186788
S.E. of regression	0.048015	Akaike info criterion	-2.959324
Sum squared resid	0.032276	Schwarz criterion	-2.562581
Log likelihood	40.55257	F-statistic	43.40119
Durbin-Watson stat	2.315644	Prob(F-statistic)	0.000000

5 SER and Banking Reforms

Dependent Variable: LOG(SER)
Method: Least Squares
Date: 02/21/12 Time: 18:39
Sample(adjusted): 1987 2009
Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.625142	2.833081	0.573631	0.5747
LOG(M2)	0.140403	0.188149	0.746232	0.4671
LOG(DCS)	0.103488	0.059380	1.742798	0.1018
LOG(IR)	-0.337454	0.442560	-0.762505	0.4576
LOG(DIV)	-0.277258	0.328261	-0.844627	0.4116
LOG(LD)	0.186889	0.416645	0.448557	0.6602
SO	-0.186287	0.344060	-0.541438	0.5962
SA	-0.068485	0.222080	-0.308381	0.7620

R-squared	0.377314	Mean dependent var	3.334708
Adjusted R-squared	0.086727	S.D. dependent var	0.341531
S.E. of regression	0.326386	Akaike info criterion	0.866734
Sum squared resid	1.597913	Schwarz criterion	1.261688
Log likelihood	-1.967437	F-statistic	1.298456
Durbin-Watson stat	1.978521	Prob(F-statistic)	0.315940

APPENDIX B

YEAR	GDP	AGR	MANF	MIN	SER	M2	LD	DIV	DC	IR	GSE	SO	SA
1986	257,784.50	38.66	96.1	97.8	32.28	-1.2	118.4	0.08	0.12	15.7	1.98	0	1
1987	255,997.00	36.68	128.4	88.4	27.91	13.7	123.1	0.08	0.05	16	1.78	0	1
1988	275,409.60	40.59	135.2	95.3	26.92	33.3	91.7	0.09	0.07	16.5	3.55	0	1
1989	295,090.80	31.34	154.3	95.4	23.96	8.5	190.6	0.09	0.3	26.8	4.6	0	1
1990	328,606.10	32.71	162.9	109.2	20.42	40.41	158.6	0.08	0.15	25.5	2.1	0	1
1991	328,644.50	30.44	178.1	115.1	22.51	32.74	140	0.06	1.02	20	1.8	0	1
1992	337,288.60	26.68	169.5	120.1	19.02	49.83	92.3	0.09	1.03	29.8	1.6	0	1
1993	342,540.50	33.52	145.5	119.9	22.51	53.76	69.4	0.06	1.07	32.2	2.1	0	1
1994	345,228.50	38.32	144.2	124.6	37.64	42.45	84	0.03	1.03	24.5	2.2	0	0
1995	352,646.20	37.32	136.2	121.1	27.31	12.75	91.4	0.09	1.04	20.2	1.81	0	0
1996	367,218.10	27.81	138.7	124.2	34.1	16.18	111.7	0.08	1.09	19.1	1.92	0	0
1997	377,830.80	26.41	138.5	129	11.86	14.4	113.4	0.08	1.02	18.4	1.61	0	0
1998	388,468.10	25.09	133.1	141.5	40.37	25.72	100.4	0.05	1.03	18.26	2.1	0	0
1999	393,107.20	30.41	137.7	134.1	47.77	29.52	91.5	0.09	1.04	21.3	2.11	0	0
2000	412,332.00	38.64	138.2	125.5	55.36	48.7	77.3	0.08	1.02	21.25	1.68	0	0
2001	431,783.20	49.11	142.2	144.3	19.21	26.8	72.5	0.08	1.04	26	1.71	0	0
2002	451,785.70	44.03	146.3	144.6	22.54	21.58	79.5	0.08	1.08	20.6	1.8	0	0
2003	495,007.20	34.13	148	146.5	25.26	24.11	78.4	0.07	1.02	19.6	1.91	0	0
2004	527,576.00	37.46	145.7	154.7	25.25	56.97	98.4	0.06	0.09	18.9	1.81	0	0
2005	561,931.40	39.23	145.8	164.8	32.28	87.45	99.8	0.09	0.13	17.8	1.91	1	0
2006	595,821.61	34.97	145.5	152.7	31.45	98.2	94.2	0.08	0.34	17.3	1.81	1	0
2007	600,653.87	36.72	145.6	164.7	32.26	62.33	97.3	0.08	0.82	16.9	1.98	1	0
2008	642,876.09	38.23	145.8	164.9	38.53	63.38	98.6	0.09	0.92	16.1	2.1	1	0
2009	650,910.21	35.13	145.9	164.8	37.23	85.14	96.8	0.09	0.83	19	2.01	1	0

VARIABLES CONSIDERED FOR ORDINARY LEAST SQUARES ANALYSIS

Source: Central Bank of Nigeria (Various Issues)

APPENDIX C

Domestic Credit to Sectors of the Economy (N'M)

YEAR	DCA	Dcm	dcmn	Dcs
1986	1,830.3	4,475.2	208.0	242.1
1987	2,427.1	4,961.2	246.3	232.3
1988	3,066.7	6,078.0	227.3	258.0
1989	3,470.5	6,671.7	271.6	200.5
1990	4,221.4	7,883.7	362.4	215.5
1991	5,012.7	10,911.3	541.8	217.2
1992	6,978.9	15,403.9	759.7	308.5
1993	10,753.0	23,110.6	1,424.1	467.0
1994	17,757.7	34,823.2	-	-
1995	25,278.7	58,090.7	12,071.6	-
1996	33,264.1	72,238.1	15,049.5	-
1997	27,939.3	82,823.1	20,611.0	-
1998	27,180.7	96,732.7	22,848.2	-
1999	31,045.7	115,759.9	24,683.6	-
2000	41,028.9	141,294.8	32,288.6	-
2001	55,846.1	206,889.0	70,477.1	-
2002	59,849.7	233,474.7	70,170.0	-
2003	62,102.8	294,309.6	95,976.4	-
2004	67,738.6	332,113.7	131,055.6	-
2005	48,561.5	352,038.3	172,532.1	-
2006	49,393.4	445,792.6	251,477.1	-
2007	149,578.9	487,576.0	490,712.9	-
2008	171,665.9	733,513.1	619,898.8	33,853.5
2009	88,635.1	985,572.5	788,350.4	52,150.9

Source: Central Bank Bulletin, 2009