The Effect of the Financial Liberalisation on Economic Growth

Akingunola R.O PhD
Department of Accounting, Banking and Finance, Olabisi Onabanjo University, Ago Iwoye, Ogun State

Adekunle Olusegun.A
Department of Business Administration, Gateway Polytechnic Saapade, Ogun State, Nigeria
E-mail: adekunleolusegun@yahoo.com

Badejo Oluwaseyi
Department of Business Administration, Department of Accounting, Banking and Finance, Olabisi Onabanjo University, Ago Iwoye, Ogun State

Salami Ganiyu Olusoji
Department of Accountancy, Gateway Polytechnic Saapade, Ogun State, Nigeria

Abstract

This study examines the relationship between financial liberalisation and economic growth in Nigeria. It tends to know the contributions of the liberalisation in the Nigerian economy and whether the sector has been able to achieve its main objective of liberalization since the sector was highly regulated leading to financial disintermediation which retarded the growth of the economy. It also seeks to show whether the achievement will continue to increase the development of the economy.

The Vector Error Correction Model was employed, which was conducted after ensuring the stationarity and existence of cointegration of the variables. The financial liberalization development was proxied by ratio of liquidity that is liabilities to GDP, real interest rate, and total deposit while the economic growth was measured by the real GDP.

The study shows that the co-integration test results showed that long run equilibrium conditions are only maintained between the variables when all the exogenous variables are used together; between the RGDP and M2GDP; and between RGDP and NB when regressed separately. It also shows that all the variables are statistically insignificant. The overall statistic shows that the independent variables were able to explain only 7 percent variation in the dependent
In order to consolidate the gains of the reform programme, government should avoid drastic policy reversal but rather, it should concentrate efforts in fine-tuning the existing policy measures which will not only compel prudence on the part of major operators in the financial market but also will stimulate saving behaviour of all economic agents. There is need for reinforcement of its information system, improved and articulated regulations and enhanced supervision of credit. Creating and maintaining a stable macro-financial environment based on stable macroeconomic policies, low inflation and flexible interest rates

**Keywords:** Broad Money Supply, Economic Growth, Financial Intermediation, Financial Liberalisation, Financial System, Gross domestic product (GDP), Structural Adjustment Programme (SAP)

**Introduction**

Nigeria, like many other third world countries, has experienced deteriorating economic conditions in the past two and a half decades. Many of these less developed countries under a crushing burden of debt and other external disequilibria have adopted Structural Adjustment Programme (SAP) in which liberalization of the various sectors of the economy is a major policy adopted. The financial markets are usually one of the first sectors of the economy to be subjected to deregulation. The ultimate objective of SAP in Nigeria is to quicken the recovery of the economy from its present downturn and the financial sector is being required to take on an important role in quickening economic recovery.

In Nigeria, financial repression, characterised by the policies of directed credit and an interest rate ceiling, is believed to have caused imperfections in the operations of the financial market. Shaw (1973) and Mckinnon (1973) in Anyanwu (1995), asserted that financial repression such as usury restriction on interest rates, high reserve requirements on bank deposits, and mandatory credit allocations interact with ongoing inflation to reduce the attractiveness of holding claims on the domestic financial system.

The main reason of adjustment programme is the liberalisation of financial markets, which has been recommended as a policy to overcome the problems of financial resources and generally involve interest rate deregulation and cancellation of the policy of directed credits.

Prior to the introduction of the Structural Adjustment Programme (SAP) in Nigeria in 1986, the Nigerian financial sector was characterised by fixed and relatively low interest rates, mandatory sectoral allocation of bank credit and quantitative ceilings on bank credit to the private sector, all of which engendered distortions and inefficiencies.

The decision to undertake financial sector reforms in Nigeria could be partly traced to the missing Mckinnon and Shaw (1973) of Financial repression” and partly to the new thinking of the international Monetary fund (IMF) and the World Bank as evident from the financial policies embodied in their stabilization programme. The missing Mckinnon and Shaw (1973) became the new orthodoxy in the 1970s and 1980s and has led to shift of emphasis in policy
prescription. The message contained in the thesis suggest that a low or negative real rate of interest discourages savings and hence reduces the availability of loanable funds, constrains investment, and in turn lowers the rate of economic growth. They posited further that on the contrary, an increase in the real interest may induce savers to save more, which will enable investment to take place.

Given the foregoing, Nigeria embarked on financial sector liberalization in 1991. Consequently, interest rates were liberalized by switching from an administered interest rate setting to a market-based interest rate determination; credit controls were also removed by eliminating directed and subsidized credit schemes. In fact, use of credit ceiling was replaced with open market operation; prudential regulations were also put in place; government owned-banks were also privatized just as entry and exit from the financial sector were liberalized.

Since the introduction of SAP into the Nigerian economy in July 1986, a great deal of interest has been shown in the activities and developments which the banking system. A central component of the SAP reform was the restructuring of the national financial system by relaxing some regulations considered inhibitive to orderly growth and development within the system.

The economic growth is a gradual and steady change in the long-run which comes about by a general increase in the rate of savings and population (Jhingan, 2005). It has also been described as a positive change in the level of production of goods and services by a country over a certain period of time. Economic growth is measured by the increase in the amount of goods and services produced in a country. An economy is said to be growing when it increases its productive capacity which later yield more in production of more goods and services (Jhingan, 2003). Economic growth is usually brought about by technological innovation and positive external forces. It is the yardstick for raising the standard of living of the people. It also implies reduction of inequalities of income distribution.

The financial sector of any economy in the world plays a vital role in the development and growth of the economy. The development of this sector determines how it will be able to effectively and efficiently discharge its major role of mobilizing fund from the surplus sector to the deficit sector of the economy. This sector has helped in facilitating the business transactions and economic development. If a financial system is well developed, it will enhance investment by identifying and funding good business opportunities, mobilizes savings, enables the trading, hedging and diversification of risk and facilitates the exchange of goods and services. All these result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in economic growth.

This study attempts to investigate the effect of financial liberalization on the Nigerian economic growth process.
Statement of the Problem

The Nigerian financial sector, like those of many other less developed countries, was highly regulated leading to financial disintermediation which retarded the growth of the economy. Most third world countries (including Nigeria) had in the past used governmental interventions as a tool allocation of resources. These interventions have been described as not only repressive but a major factor retarding the growth process of the economy in addition to being harmful to the banking sector whose interest the liberalization is aimed at protecting. Indeed, the Nigeria growth performance has become worrisome over the last two decades. During this period, growth was sluggish and dismal to the extent that the efficacy of the various dosages of different reform policies remains an open-ended question.

Prior to the introduction of the Structural Adjustment Programme (SAP) in Nigeria in 1986, the Nigerian financial sector was characterized by fixed and relatively low interest rates, which lead to financial disintermediation due to the low savings and demand deposits. Decline in financial intermediation leads to decline in the activities of the banking system since it is the most crucial role of banks. In addition, the mandatory sectoral allocation of bank credit and the ceiling on bank credit to the private sector leads to distortion in credit allocation.

Following financial liberalization, market determination should result in modestly positive real interest rates. These, in turn, will increase the resources available to the financial system, since bank deposits offering competitive return will attract savings that were previously held outside the formal financial sector. Moreover, positive real interest rate will provide an incentive for borrowers to invest in more productive activities, thereby improving the productivity of the whole economy. Consequently, financial liberalization should lead to an increase in both the quantity and the quality of financial intermediation by the financial system.

Financial sector therefore stimulate economic development through a variety of channels. Since the financial system performs the vital function of raising funds, and channeling funds to productive investment, successful financial liberalization is usually an important component of a country’s strategy for economic growth.

Objectives of the Study

The broad objective of this study is to consider the impact of the Nigerian financial sector liberalization on the growth of the economy; pre SAP, SAP period and Guided Deregulation period. The specific objectives are to

1. determine the relationship that exists between financial liberalization and economic growth in Nigeria
2. examine the impact of financial liberalization on the performance of economic growth
Research Question

With the adoption of the Structural Adjustment Programme (SAP) in 1986, in an attempt to quicken the recovery of the economy from its deteriorating conditions, a great deal of interest has been shown in the activities and development in the financial sector. This is so because the restructuring of this sector was a central component of the SAP reform. As a result of this, the study tends to address the following.

What are the contributions of the financial liberalisation in the Nigerian economy? Has the financial sector been able to achieve its main objective of intermediation? Will the achievements of the financial liberalisation continue to increase the development of the economy? Does the financial liberalisation positively affect the economic growth in Nigeria? What is the direction of causation between financial liberalisation and economic growth in Nigeria?

Statement of the Hypotheses

The hypotheses for the study will be drawn from the main objective of the study.

Hypothesis 1

H0: Financial liberalization does not have any impact on economic growth
H1: Financial liberalization has impact on economic growth

Hypothesis 2

H0: There is no relationship between financial liberalization and economic growth
H1: There is relationship between financial liberalization and economic growth

Justification for the Study

Some literature or write-ups, such as Ojo (1991), Oluyemi (1995) and Anyanwu (1995), have written about liberalization since the advent of SAP in Nigeria. But this study will in addition seek to find out the effects of the liberalization on the performance of the banking sector showing the significant changes brought about by the SAP. The financial sector is a critical and inextricable part of the growth process (Levine, 1997) there is the need to determine this for Nigeria.

The reform of the financial sector occupies a central position in the liberalization of sectors because it is an efficient financial system that is a necessary condition for efficient functioning of a nation’s economy. Distortions in this sector tend to distort the workings of the entire economy. In most countries of the world (whether developed or less developed economies), considerable attention is normally given to the financial sector of the economy because it is
difficult to achieve most of their targets under any economies reform programme without an appropriate financial sector reform (Afolabi & Mamman, 1994).

The existence of a relationship between financial market liberalization and economic growth has mainly been conducted through cross-country regressions (Singh & Weisse, 1998), Durmus, Ozdemir and Can Erbil (2008) and Imene & Schalck (2010). The results obtained in such studies are not always easy to interpret, because they are based on a fragile statistical basis and they do not account adequately for the variation in institutional settings across countries. Therefore, with the use of time series approach, this study will show the ability to account for the specificity of the Nigerian situation as well as offer the opportunity to analyse the benefits of financial sector reforms on the Nigerian growth process. This study will therefore improve upon the existing literatures by focusing on a single country rather than cross-country analysis by existing literatures.

This study departs from earliest works in two respects. First, the two financial liberalization indicators Pill and Pradhan (1997) and Klein and Olivei (2008) were used together. Second, this study used annual data covering the period 1960-2008 catering for the periods when the financial sector is highly regulated and later deregulated. Among the important features are interest rate liberalization, the emergence of large banks (through recapitalization and mergers and acquisition) and non-bank financial intermediaries and the offering of new financial instruments in the financial system.

The importance of achieving macroeconomic stability will be added. Therefore this study is very important because it concerns with the sector that is the lubricant of engine of growth that drives the economy.

Scope of the study

It is going to be a time series study covering the period between 1960 and 2008. The choice of the period under review was informed solely by data availability consideration on the variables required for the study. The choice of the period from 1960 was to cater for the period of regulation up to mid 1986 while the introduction of SAP in 1986 up to 2008 is for the period when the Nigerian financial sector has been fully liberalized.

The rest of this study is divided into four sections. Section two provides the literature review and theoretical framework. Section three discusses the methodology, and section four presents discussion of result. Section five concludes and proffers recommendation for the study.

Literature Review and Theoretical Framework

Liberalization can simply be said to mean a shift from direct policy and regulatory controls to market driven behavior to set prices and to allocate resources. Financial liberalization as used here refers to the deliberate and systematic removal of regulatory controls, structures, and operational guidelines that may be considered inhibitive of orderly growth competition and
efficient allocation of resources in the financial system (Ojo, 1991). The need for financial liberalization could be traced to the Mckinnon and Shaw’s (1973) argument that financial repression reduces the real rate of growth and the real size of the financial system relative to non-financial magnitudes. Here, it is posited that in all cases, this strategy (financial repression) has stopped or gravely retarded the development process. The common elements of the Mckinnon-Shaw hypothesis are:

1. A saving function that responds positively to both the real rate of interest on deposits and the real rate of growth in output;
2. An investments function that responds negatively to the effective real loan rate of interest and positively to the growth rate:
3. An administratively fixed nominal interest rate that holds the real below its equilibrium level; and
4. Inefficient non-price rationing of loanable funds.

The Mckinnon-Shaw hypothesis shows that banks allocate credit not according to expected productivity of the investment projects, but according to transaction costs and perceived risks of default. Here, quality of collateral, political pressures, name, covert benefits to loans officers also play major role in the allocation of loans. The consequence of all these is the reduction in the average efficiency of investment as the loan rate ceiling is lowered because investment with lower returns now becomes profitable. This occurs when interest rates are set too low, thus resulting in credit rationing. Such interest rate ceilings distort the economy in four ways:

1. Low interest rate produces a bias in favour of current consumption against future consumption. This may reduce saving below the socially optimum level;
2. Potential lenders may engage in relatively low-yielding direct investment instead of lending by way of depositing money in banks;
3. Bank borrowers able to obtain all the funds they want at low loan rates will choose relatively capital-intensive projects; and
4. The pool of potential borrowers contains entrepreneurs with low-yielding projects who would not want to borrow at the higher market-clearing interest rate. In the effect that banks’ selection process contains an element of randomness, some investment projects that are financed will have yields below the threshold that would be self-imposed with market-clearing interest rate (Fry, 1997).

On the contrary, raising the interest rate ceiling towards its competitive free-market level increase both savings and investment. It also deters entrepreneurs from undertaking all low-yielding investments that are no longer profitable at the higher real interest rate. Thus the average returns to or efficiency of aggregate investment increases. The output growth rate rises in the process, with consequence for increased saving. Thus, the rate of interest as the return to savers is the key to a higher level of investment, and as rationing device to greater investment efficiency. The increased quantity and quality of investment interact in their positive effects on the output growth rate. Therefore, in terms of policy recommendation, the Mckinnon-Shaw model opines that raising institutional interest rate or reducing the rate of
inflation would be ideal for a financially repressed economy. Incidentally, several financial liberalization (e.g. liberalization of interest rate) experiments have not resulted in growth as enumerated above. It is for this reason that Fry (1995) identified five prerequisites for successful financial liberalization:

1. Adequate prudential and supervision of commercial banks, implying some minimal levels of accounting and legal infrastructure;
2. A reasonable degree of price stability;
3. Fiscal discipline taking the form of a sustainable government borrowing requirement that avoids inflationary expansion of reserve money by the central bank either through direct domestic borrowing by the government or through the indirect effect of government borrowing that produces surges of capital inflows requiring large purchases of foreign exchange by the central bank to prevent exchange rate appreciation;
4. Profit-maximizing, competitive behaviour by the commercial banks; and
5. A tax system that does not impose discriminatory explicit or implicit taxes on financial intermediation;

This suggests that financial liberalization crucially depends on the assumption of perfect information and perfect competition (Arestis & Demetriades, 1999). It is also on this ground that Stiglitz (1994) notes that financial liberalization may not be successful because financial markets are prone to market failure. He suggests that there exist some forms of government intervention that will not only make these markets function better but will also improve the performance of the economy. Stiglitz (1994) identifies two sources of market failure. First, there is market failure arising from costly information because monitoring is a public good. He noted further that costly information can also produce externalities. Here, when several banks will fail. Their reaction in the form of deposit withdrawal may produce the predicted failures. Externalities can also be transmitted across markets. Second, market failure could be due to information imperfections. Here, Stiglitz (1994) argues that financial repression can improve the efficiency with which capital is allocated in four ways.

First, lowering interest rates improves the average quality of the pool of loan applicants.

Second, financial repression increases firm equity because it lowers the cost of capital.

Third, financial repression could be used in conjunction with an alternative allocative mechanism such as export performance to accelerate economic growth.

Fourth, directed credit programmes can encourage lending to sectors with high technological spillovers.

While supporting the view of Stiglitz on the importance of information imperfections and the role of government in the area of prudential regulation and supervision, Fry (1997) could not, however, accept Stiglitz’s case for financial repression on the grounds; that:
1. Lowering interest rates does not necessarily increase the average efficiency of investment because lower interest rates can encourage entrepreneurs with lower-yielding projects to bid for funds (Fry, 1995);

2. Using past performance as a criterion for allocating credit discriminates against new entrants and perpetuates monopoly power; and

3. Directed credit programmes have invariably raised delinquency and default rates, so increasing fragility of the financial system by forcing financial institutions to increase their risk exposure with no compensating returns.

At the heart of empirical analysis of financial sector liberalization-growth nexus is the expectation that financial liberalization exerts a positive effect on the rate of economic growth in both the short and medium runs (McKinnon-Shaw, 1973). Indeed, recent empirical studies (Beck et al., 2000; Baliamoune & Chowdhury, 2003) showed positive effects of financial development on savings, investment and growth. Adegbite (2004) used the ratio of broad money supply (M2) to GDP as the measure of financial sector growth and deepening, found a positive correlation between financial sector growth and real sector growth in Nigeria. However, Adegbite did not attempt to establish a causal link between the two. Bencivenga and Smith (1991) argued that in a well developed financial system where the securities market is also developed the ability of the financial system to impart liquidity to long-term instruments stimulates savers to hold their wealth in productive assets (debentures, stocks, preferential stocks etc) and this contributes to productive investment and growth. Also, in other separate studies, King and Levine (1993a) examined the links between finance and growth in a sample of 77 developing countries over the period 1960-89. They constructed four financial indicators, namely: liquid liabilities divide by GDP (usually M2 divided by GDP); domestic assets in deposit money banks divided by domestic assets of both deposit money banks and the central bank; domestic credit to the private sector divided by aggregate domestic credit; and domestic credit to the private sector divided by GDP. They also constructed four growth indicators, namely: average rate of growth in per capital GDP; average rate of growth in the capital stock; the residual between first and 0.3 of second as a proxy for productivity improvements; and gross domestic investment divided by GDP. The result from these studies showed that each financial indicator is positively and significantly correlated with each growth indicator at the 99% confidence level.

Indeed, evidence abound in the literature (Levine, 1997) that the level of financial development is a good predictor of future rates of economic growth, capital accumulation and technological change (Baliamoune & Chowdhury 2003). This suggests that financial sector development relates to economic growth in various ways. One of the roles of their funds in less established but likely highly productive firms by reducing informational asymmetries and cost (King & Levine 1993).

Economic growth has been described as sustained increase in per capita national output or net national product over a long period of time. It also implies that the rate of increase in total output must be greater than the rate of population growth (Dwivedi, 2006). Economic growth occurs when a nation’s production possibility frontier (PPF) shifts outward. Economic growth,
being the growth in output per capita, is an important objective of government since it is associated with rising average real incomes and living standard. According to Samuelson and Nordhaus (2005), it is the single most important factor in the success of nations in long run. Lipsey and Chrystal (2004) identify the benefits of economic growth in the following ways:

1. The most important benefit of growth lies in its contribution to the long run struggle to raise living standards and to escape poverty. The cumulative effects of what may appear to be small growth rates become large over periods of a decade or more.
2. The new products created by technological change transform the entire ways of living of the people of the economy. As consumption patterns of members of society may change as their average income rises. As more profitable cars are produced, the government is made to construct more roads
3. It is much easier for a rapidly growing economy to redistribute income so as to avert poverty and extreme hardship. With economic growth it is possible to reduce income inequalities without having to lower anyone’s income

The Robert Solow neo-classical growth model posits that growth depends on capital accumulation – increasing the stock of capital goods to expand productive capacity, and the need for sufficient saving to finance increased allocation of resources towards investment.

Bencivenga and Smith (1991) asserted that economic growth will increase if more savings are channeled into the activity with high productivity while reducing the risk associated with liquidity needs. This will show that banks provide the benefits of eliminating unnecessary liquidations

Studies have shown that countries with well developed financial institutions tend to grow faster, particularly the size of the banking system and the liquidity of the stock market tend to have strong positive impact on economic growth. The financial services provided by these institutions are essential drivers for innovation and economic growth.

Nnanna (2004) stated that the rate of output growth is determined by the accumulation of capital, the efficiency of resource utilization and the ability to acquire and adopt modern technology. He concluded that the degree of financial system development is crucial for attracting and sustaining capital flows, savings mobilization and utilization. Oluyemi (1995) ascertained that the performance of banks can be measured by the extent of growth in banking activities since the introduction of the Structural Adjustment Programme (SAP) and the deregulation of the nation’s financial services industry. He went further that total deposit is one of the good measures for the extent of growth in the banking activities. Deposits provide the working capital, stock-in-trade of banking. No business can flourish successfully without adequate deposits. The more the deposit, the more business (lending) the banks make and the more profits made. To a large extent, the deposits form the bedrock of banks’ loans and advances or other investments from which income is derived.
Following the deregulation of the financial sector, market determination of interest rates in positive real interest rates which in turn increase the resources available to the financial system, since bank deposits offering a competitive return attracts savings that were previously held outside the formal financial sector. Moreover, positive real interest rates provide an incentive for borrowers to invest in more productive activities, thereby improving the productivity of the economy as a whole.

A well developed and efficient financial system would ensure a long-run high growth rate, by minimizing macro-economic shocks that truncate output growth (missing (Denizer et al, 2000) and (Nnanna, 2004). Beck and Levine (2001), also in Nnanna (2004), assessed the independent impact of stock markets and banks on economic growth and concluded that they are very critical for economic growth.

McKinnon Shaw hypothesis, according to many authors implies that a monetized economy reflects a highly developed capital market; hence a high degree of monetization should be positively related to growth performance. Fama (1980) asserted that financial markets channel funds from agents willing to save to those requiring funds and provide liquidity services.

De-Gregorio and Guidotti (1995) asserted that broad money (M2) is related to the ability of the financial system to provide liquidity, or a medium of exchange. Gelb (1989) uses the ratio of a broad definition of money, M3, to GDP as a proxy for financial depth and the change in M3 divided by GDP as a measure of liberalisation. King and Levine (1993) also focus on the liquid liabilities of financial system. According to Benhabib and Spiegel (2000), the extent of financial deepening (or financial depth) is an indicator of the overall size of the formal financial sector which can be measured by the ratio of liquid liabilities of financial institutions to GDP. Missing Bakhouche (2007) also asserted that the ratio of broad money M2 to GDP reflects the extent to which a developing economy is monetized, and provides an indication of the extent to which the financial sector provides suitable instruments for payments and savings.

Most literatures stated that Mckinnon (1973) and Shaw (1973) argue that policies that lead to financial repression reduce the incentives to save. The McKinon-Shaw (1973) suggests that a low or negative real interest rate discourages savings and hence reduces the availability of loanable funds, constrains investment, and in turn lowers the rate of economic growth. They posited that an increase in the real interest rate may induce the savers to save more which will enable investment to take place. Diaz-Alejandro (1985) in his study show that financial deepening in Latin America is unlikely to increase savings, therefore, the main contribution of financial deepening to growth should be thought of as increasing the marginal productivity of capital rather than the volume of savings and investment Dornbusch (1990) finds that financial savings are not related to the level of real interest rates, and that the positive effect of real interest rates on growth does not come through its effect on the volume of investment. Khan and Villanueva (1991) suggest that positive real interest rate is a good proxy for the efficiency of capital accumulation. De Gregorio and Guidotti (1995) asserted that credit granted by banks appears to the most appropriate indicator of the degree of financial intermediation that occurs through the banking system. He stated further that it may be a weaker indicator of financial
development broadly defined, to the extent that a significant portion of financial development occurs outside the banking system. He stated that it is a better proxy for financial development in developing countries since most of financial development occurred within the banking system.

Greenwood and Jovanovic (1990), in their model, show that financial intermediation promotes growth by ensuring a high rate of returns to the capital invested and that growth realized makes it possible, in its turn, to reduce the costs of the financings thanks to the drop in risk premiums due to the drop in the asymmetry of information. Bencivenga and Smith (1991) also underlined the positive effects that financial intermediaries have on the economy by encouraging the re-allocation of savings from liquid investments to longer-term productive investments. It is a matter of moving from speculative financial investments to investments in production and development projects.

The principal aims of financial liberalization were to stabilize the economy in the short run, induce the emergence of a market-oriented financial sector for effective mobilization of financial savings and efficient resources allocation to increase competition, strengthen the supervisory role of the regulatory authorities and stream-line public sector relationship with the financial sector (Anyanwu, 1995). Pill and Pradhan (1997) posited that financial liberalization entails the abolition of explicit controls on the pricing and allocation of credit. They said further that financial liberalization is only one component of a successful development strategy, which should lead to an increase in both the quality and quantity of financial intermediation by the banking system.

According to Ojo (1991), the deregulation of the financial markets by eliminating distortions such as subsidized interest rate and credit rationing will most likely improve economic efficiency and the productively of investment. He concluded that deregulation attempts to rationalize the existing regulatory framework in such a way that efficiency and competition will be further promoted for the growth of the banking industry and the economy as a whole.

The benefits of financial repression, as opposed to financial liberalization, are debated on several points. In theory, it is believed that financial repression creates a better control over money supply and a lower interest rate (usually below market rate) which can induce a higher investment. Another argument in favour of financial repression is that government controlled usury controls on financial markets are needed, especially for capital scarce economies of developing countries. The main conviction of the advocates for financial repression is that the government knows better than the market. The repression mechanism works through the interest rate and the exchange rates. Therefore moving from financial repression to financial liberalization would require extra budgetary measures and could create budgetary problems.

On the other hand, the most cogent argument which favours financial liberalization is the increasing growth effect by stimulating savings and investment. Linking growth with savings and investment has a number of favoured arguments. Financial liberalization may increase the level of savings and improve the allocation of savings among potential investors. This may
create more available funds to finance technological developments and hence lead to higher economic growth. Financial liberalization may decrease the cost of capital, but on the other hand, the effects of international speculative capital movements which cause the crises and macroeconomic instability may have a negative impact on economic growth.

Theories of Financial Liberalisation

Due to the central position and the crucial role played by the financial sector, many economists have provided evidence to show that there is a direct linkage between the financial sector and the growth and development of the nation’s economy. The banking sub-sector in the opinion of the experts can assist in the break away from a depressed economic performance to an accelerated growth if and only if, the sector is not repressed and distorted with inappropriate and inflexible regulations (Oluyemi, 1995).

Smith (1776) (Jhinghan, 2005) believed in the doctrine of natural law in economic affairs. He regarded every person as the best judge of his own interest who should be left to pursue it to his own advantage. Since every individual if left free, will maximized his own wealth, therefore all individuals if left free, maximized aggregate wealth. Smith was naturally opposed to any government intervention in industry and commerce. He believed in the doctrine of laissez faire (no government). Rose (1988) noted that bankers are entrepreneurs, who when freed from constraints of regulations, will readily pursue new opportunities for better services, stronger growth and improved earnings whenever these opportunities appear. Too much regulation, especially the inflexible and dogmatic ones deny banks of their innovation and incentive to take risk and invest in business enterprise. It could also result in problems such as loss of competitiveness and inefficiency, resource misallocation, etc among banks, thereby hindering the growth of the nation’s economy. Cameron (1972) also noted that financial development will contribute most significantly to economic growth if the countries are not to interfere in the operations of the financial institutions.

Rajah and Zingales (1998) in their hypothesis opined that if the financial sector speeds up growth, its development should influence more the branches of industry which have external sources of financing than those which finance investment with undistributed profits. They used as method the variability between sectors of the same countries to identify the effect of financial development. They concluded that the branches of industry that are relatively dependent on external financing record a faster growth in the countries where the financial sector is most developed.

King and Levine (1993) in their theory state that finance generates growth and state that financial development can be measured by the ratio of the credit of the financial sector to GDP, credit to the non-financial private sector over the total credit and of credit to the non-financial private sector over the GDP. They observed that the stage of development of the financial sector of a group of countries in 1960 made it possible to foresee economic growth over the following thirty years. They find that higher levels of financial development are associated with faster economic growth and conclude that finance seems to lead to growth.
This study based on theories of financial liberalization as propounded by missing Smith (1776) and Rose (1988) since deregulation requires the non-intervention of the government. The operators of the financial sector, being entrepreneurs will ensure that they bring about better services, stronger growth and improved earnings. The resultant development from the liberalization will then have multiplier effects on all other sectors of the economy. An industry that depend on external financing, rather than undistributed profits, will record a faster growth

The Nigerian Financial Sector before SAP

As with virtually all other African economies, Nigeria's financial sector is underdeveloped, dualistic, and unorganised. It is characterized by dualism, market segmentation and spatial fragmentation. The money and capital markets are thin and shallow. Financial intermediation is imperfect. Until the adoption of SAP in 1986, financial repression and bureaucratic control of interest rates were the order of the day.

There were only a handful of commercial banks (which were usually subsidiaries of foreign owned banks) in 1960. In the second half of the 1990s, there were about 67 commercial banks, 55 merchant banks, 6 development banks, and 1 saving bank (the National Provident Fund). The larger and older banks have hundreds of branches across the country. Although the rural areas are still under-banked (despite serious efforts by the Central Bank of Nigeria (CBN) to motivate the established banks to set up rural branches), the establishment of People’s Banks and Community Banks all over the country in the 1990s has nevertheless helped to alleviate the problem. Even though the money and capital markets are still not as deep as desirable, a start seems to have been made in the late 1980s and early 1990s to develop a more robust and balanced financial structure that would improve the ability of the domestic financial system to mobilize savings and contribute to self-sustained economic growth.

During the last two decades, there has been an encouraging development in the growth of the capital market. The Nigerian Stock Exchange has been expanding and evolving. The number of quoted stocks has increased and market capitalization has burgeoned. From Table 2.2, it is seen that the ratio of market capitalization to GDP has risen significantly during the last 10 years. In 1988, the market capitalization to GDP ratio was 4.2%. By 1994, this ratio had almost trebled to 11.5%. While it has leveled off somewhat, market capitalization was still over 9% of GDP in 1997. The continued growth of market capitalization seems to be hindered by the underdeveloped state of infrastructure in the economy. Today, the world has moved into the electronic age and the growth of stock markets is critically dependent on the development of computers and telecommunications. If these essential infrastructural facilities become widely available in Nigeria, there is reason to believe that the growth of the Nigerian Stock Exchange would accelerate in the years ahead.

The Nigerian Financial Sector during SAP

The adoption of SAP in July 1986 ushered in an era of laissez-faire policies, economic liberalization and price deregulation in virtually all aspects of economic life. Financial
deregulation began in earnest in 1987 and had far-reaching impact especially on the banking industry. Financial deregulation was accompanied by the rapid emergence of financial innovations, deregulated interest rates, and fierce competition among and between various financial institutions.

The deregulation initially provided powerful incentives for expansion in both the size and number of banking and non-banking financial institutions. The consequent phenomenal increase in the number of banks and non-bank institutions providing financial services led to increased competition among various banking institutions, and between banks and non-bank financial intermediaries. Indeed, commercial banks, merchant banks, mortgage institutions, insurance and finance companies have all expanded the range and volume of their activities since the deregulation exercise began.

Apart from the stiff competition in the range of financial activities, banks also faced problems associated with a stubborn slow-down in economic activities, severe political instability, virulent inflation, worsening economic and financial conditions of their corporate borrowers, and increasing incidence of fraud and embezzlement. Another major problem banks had to contend with was inconsistency in monetary and regulatory policies. The official policy and regulatory response to the rapid developments in the financial system was apparently characterized by poor anticipation, indecision, delay, and panic. Iyoha (1997b) has observed that the CBN’s surveillance and regulatory measures have unfortunately failed to keep pace with the rapidity of the changes in the financial system.

All these factors -- deregulation, competition, innovation, economic recession, political instability, escalating inflation, and frequent reversals in monetary policy -- have combined to create a challenging and precarious financial environment. One major consequence of the new financial environment has been the rapidly declining profitability of traditional banking activities, arising in part from the increasing risk associated with banking. This is partly because, in a bid to survive and maintain adequate profit levels in this highly competitive environment, banks have tended to take excessive risks. But then, the increasing tendency for greater risk-taking has resulted in insolvency and failure of a large number of banks. The end result was a sharp increase in the incidence of bank distress and bank failure. For example, while 8 banks were officially reported to be distressed in 1991, the number rose to 16 in 1992 and further increased to 24 in 1993. In fact, by 1996, the Central Bank of Nigeria published a list of 26 failed banks. If we add 5 banks that had earlier been closed down as insolvent, then the total number of banks certified dead totaled 31. Presumably, allowing the terminally ailing banks to fail was the Central Bank’s strategy to cut its losses and save the entire banking system from collapse. Meanwhile, the CBN and National Deposit Insurance Company (NDIC) have tightened surveillance and supervision in order to reduce future occurrence of bank failure of this magnitude.
Nigerian Financial Sector Reform

The reform of the financial sector occupies a central position since the efficiency of this sector is a necessary condition for the efficient functioning of a nation’s economy. According to Calderon and Liu (2003), for a country to gain a sustainable economic growth, it will be imperative for such an economy to undertake financial reform.

Several financial restructuring programs have been put in place since early 1990s up to this period of democracy such as recapitalization, merger and acquisition, capital control and deflationary policy, all with the aim of improving the financial system. The on-going reforms in the Nigerian financial sector were as a result of the weaknesses and the inability of the sector to complement the developmental efforts of the country (Uche, 2008). The banking sector reform is expected “to build and foster a competitive and healthy financial system to support development and to avoid systematic distress” (Soludo, 2007)

There were reforms in monetary policy which were designed mainly to stabilise the economy in the short run and to induce the emergence of a market-oriented financial sector. These reforms include:

**Rationalisation of credit controls:** although credit ceilings on banks were not completely removed, the sector specific credit distributions target were compressed from 18 in 1985 to 2 in 1987 - priority (agriculture and manufacturing) and non-priority (others). Other credit measures enacted were the elimination of exceptions within the ceiling on bank credit expansion, giving similar treatment to commercial and merchant banks in relation to required liquidity ratios and credit ceiling, the modification of cash reserve requirements which is now based on the total deposit (demand, savings, and time deposits), rather than on time deposits only, and the reintroduction of stabilisation securities. These are non-negotiable and non-transferable debt instruments of the Central Bank which banks are mandated to purchase at intervals in order to control their excess reserves. It was designed to mop-up the excess liquidity of the banking system.

**Deregulation of interest rates:** in January 1987, a partial deregulation of interest rates was attempted, but by August, all rates became market determined. The CBN adopted the system of fixing only its minimum rediscount rate to indicate the desired direction of interest rates changes. Interest rate liberalisation was aimed at enhancing the ability of banks to charge market-based loans rates and also guarantee the efficient allocation of scarce resources. In 1989, banks were encouraged to pay interest on current account deposits. The rate to be paid was to be negotiated between banks and their customers.

**The shift from direct to indirect system of monetary control:** in June 1993, an open-market operation (OMO) was introduced. Under the scheme, OMO was to be conducted exclusively through licensed discount houses, which are supposed to constitute the open market for government securities. The introduction of OMO was meant to replace the use of direct
controls for managing liquidity in the economy. The Foreign exchange market reforms were also very important since transactions in foreign exchange constitute an important aspect of financial sector activities. A second-tier foreign exchange market was established in 1986 as an auction forum for the sale and purchase of foreign exchange. Previously, the sale and purchase of foreign exchange was rigidly controlled through the use of import licenses and the exchange rate was fixed by fiat. This resulted in an overvaluation of the Naira with its attendant consequences. In order to restore appropriate exchange rates, the authorities began the auction sales of foreign exchange to licensed dealers. A first-tier market was retained to take care of transactions related to government debt-servicing, contributions to international organizations and transfers to Nigerian missions abroad. In 1988, the government permitted the establishment of private foreign exchange and to accord recognition to small dealers in foreign exchange.

With the deregulation of the foreign exchange, all existing restrictions on capital transfers were abolished. All that was needed was for evidence of importation and exportation to be provided to the Federal Ministry of Finance. In addition, all applications for capital transfer abroad were to be backed by appropriate documents and settled at the appropriate exchange rate.

In order to strengthen the Nigerian financial system, there has been an increased trend in consolidation in some segments of the financial sector like the deposit money banks, community banks, capital market and insurance companies which will be discussed below.

**Deposit Money Banks** Deposit money banks are supposed to facilitate capital formation and promote economic growth. The consolidation exercise started in mid 2004 with the deposit money banks that were required to raise their minimum capital base from N2bn to N25bn by the end of 2005. This therefore reduces the number of deposit money banks from 89 banks to 25 mega-banks (now 24) after series of mergers and acquisition. The outcome of the consolidation exercise was the emergences of 25 banks in Nigeria which together accounted for about 93.5% of aggregate deposit liabilities and a larger capital base from about $3 billion to $5.9 (Soludo, 2006)

The strong capital has ensured a basic indication of solvency of the banks and has provided the vehicle for taking out the weak banks and forcing others into a marriage of convenience.

According to Uche (2008), the reform in the banking sector has made many of the Nigerian banks to be active participants in the global commerce. He also noted further that these banks have been able to accelerate the development of the economy through their increased lending ability to the indigenous entrepreneurs as a result of the increased capital base of the banks.

**Insurance Companies** Insurance services are capable of generating significant productive impact in an economy as a result of risk transfer activities which make it easy for an individual to purchase expensive items. The insurance companies as a result of increasing risks need to be re-capitalised to enhance their ability to provide adequate cover for policy holders. This made the Federal Ministry of Finance with the National Insurance Commission (NAICOM) to increase
the capital base of life insurance business to ₦2 billion while that general insurance business was increased to ₦3 billion and that of re-insurance business was also increased to ₦10 billion. This has therefore reduced the number of the insurance companies to 71 from 103 comprising of 43 general insurance, 26 life insurance and 2 re-insurance companies.

**Capital Market** The reforms in the Nigerian capital market are concern about a strong and viable capital as a vehicle for mobilizing capital for developmental purposes. The reform was target at the secondary market represented by the Nigerian Stock Exchange (NSE). The operation standards of the NSE are now comparable to what obtains in the developed economies. The Central Securities Clearing System (CSCS) and the Automated Trading System (ATS) have enhanced the efficiency in stock trading and also made the market more investor friendly due to honesty and transparency in-built in the system.

**Microfinance Banks** The community banks in Nigeria have now been converted to microfinance banks through increase in the capital base of the banks to ₦20million for a single-branch bank and ₦1billion for those interested in establishing cash centers and more branches state wide. These banks are positioned to provide financial services to the urban and rural poor and small firms which have been said to play a crucial role in economic development. The smallness of the loans advanced and the savings collected, the absence of asset-based collateral and the simplicity of operation make microfinance banks suitable for the poor and small firms. The ability of these banks to provide adequate loan to the poor populace will depend on the soundness of their capital base. The reform of the community banks has resulted in the conversion of the banks to microfinance banks since December 31, 2007 through increase in the capital base of the banks and a closer supervision of the banks by the Central Bank of Nigeria (CBN) was introduced.

**Financial Liberalisation and Economic Growth: Evidence from other Countries**

It will be necessary to focus on what have been the relationship and also the impact of financial liberalisation on the economic growth of other countries. This section will focus on the evidence of financial liberation in developed and less developed countries Durmus, Ozdemir and Can Erbil (2008) The effect of financial liberalization on long-run income per capita and economic growth in a sample of 10 new EU member countries and Turkey observed quarterly longitudinal panel between 1995 and 2007. Although the presumption is that free trade and financial liberalization have a favourable effect on long-run growth, counter examples also exist where they caused financial fragility, boom-bust cycles and crises. This controversy increases the importance of empirical evidence that financial liberalization has impact on economic growth. They constructed different financial openness indicators using panel data for different types of financial flows such as FDI, other investments, portfolio investments, trade openness index as well as the other control variables. Their static robust and dynamic panel data estimates indicates clear evidence between the long-run growth and a number of indicators of financial liberalization which confirms the anticipations of the 'new growth theory'. Their results emphasize the importance of financial liberalization as a policy tool.
Tswamuno, Pardee and Wunnava (2007) asserted that following liberalization in South Africa, uncertainty on the part of foreign investors due to lack of a credible macroeconomic framework led to increased volatility of capital flows; characterized by huge capital inflows and subsequent capital flight. Post-liberalization Foreign Portfolio Investments had no positive effect on economic growth. In addition, increased post-liberalization stock market turnover had a negative effect on economic growth. In contrast to this situation, evidence shows that foreign portfolio investment and increased turnover contributed positively to economic growth in a more controlled pre-1994 South African economy. They concluded that liberalization of the capital account is necessary but not sufficient for economic growth. Instead, countries need to adopt and implement credible macroeconomic policies meant to stabilize foreign capital flows in order for them to benefit fully from liberalization.

Imene Ben Fredj and Schalck (2010) studied the relationship between financial development and economic growth in Tunisia. They focused on link between finance and growth according to the maturity of financial systems. The Tunisian economy knew a long period of financial repression before starting several phases of liberalization. They aimed to determine the impact of the development of the Tunisian financial system on economic growth. They identified economic and financial development indicators of Tunisian economy. The empirical study on Tunisia is based on causality tests within B-VAR framework. Reciprocal relationships are only finding between the ratio of investment on GDP and the loans granted to private and public sectors. The economic role of government is highlighted, over the pre-reforms period as well as during the recent time.

Singh and Weisse (1998), examined two major components of financial liberalization, stock market development and portfolio capital flows in the context of less developed countries (LDCs). They considered microeconomic and macroeconomic perspectives on their implications for long-term development and economic growth. They concentrates on: (a) the role of stock markets in financing corporate growth; (b) the implications of stock market volatility for resource allocation and productive efficiency; and (c) the interactions between the foreign exchange and stock markets in the context of economic shocks. It was recommended that LDCs should promote bank-based systems, influence the scale and composition of capital inflows, and prevent a market for corporate control from emerging.

Khan and Qayyum (2006) empirically investigated the impact of trade and financial liberalization on economic growth in Pakistan using annual observations over the period 1961-2005. The analysis is based on the bound testing approach of cointegration advanced by Pesaran et al (2001). The empirical findings suggest that both trade and financial policies play an important role in enhancing growth in Pakistan in the long-run. However, there is further acceleration of reform process. The feedback coefficient suggests a very slow rate of adjustment towards long-run equilibrium. The estimated short-run dynamics are stable as indicated by CUSUMQ test.

Jbili, Enders and Treichel (1997) reviewed and assessed the financial sector reforms in Algeria, Morocco and Tunisia. After a description of the financial sector before reforms, they
explain the main features of the comprehensive reform process in each country. They also reviewed the sequencing of reforms and discuss econometric evidence of the impact of the reforms on saving in each of the three countries. Subsequently, their study sets out remaining issues to be addressed in the three countries, including a further strengthening of the banking system and development of financial instruments and markets. Chaudhry (2006) examined the impact of financial sector liberalization indicators on macroeconomic performance in Pakistan by using time series econometric analysis over the time period 1972-2006. The study undertakes bi-variate and multi-variate models for empirical analysis. In Pakistan, financial sector liberalization was initiated under the broader macroeconomic structural adjustment programs in the early 1990s. The results suggest a significant positive impact of financial liberalization variables on economic growth and investment. The findings of the study also reveal the long-run and short-run relationship between the indicators of financial liberalization and economic growth and investment in Pakistan. The results are also consistent with the other studies as described in the literature. Finally, it is concluded that there is an ardent need to stabilize the performance of financial system in Pakistan through political stability and good governance by taking some extra measures. The Strengthening of the State Bank’s capacity for supervision and prudential regulations is necessary.

Methodology

Empirical studies focused on the role of financial liberalization in economic growth. According to Pill and Pradhan (1997), Klein and Olivei (2008) there are two criteria for assessing the success of financial liberalization; the extent of financial deepening (measured by the ratio of M2 and GDP) and real interest rate. Adegbite (2004) used the ratio of broad money supply (M2) to GDP as the measure of financial sector growth and deepening, found a positive correlation between financial sector growth and real sector growth in Nigeria.

The chosen economic growth indicator is the real Gross Domestic Product (RGDP) is specified to depend on the financial sector indicators which are the ratio of liquid liability to GDP (M2GDP), real interest rate (INT), total deposit of deposit money banks (NB) and dummy variable (DM) to cater for policy changes. Calderon and Liu (2003) noted that a higher M2GDP ratio implies a larger financial sector and greater financial intermediary development. According to Pill (1997) a move from negative to positive real interest rates indicates progress in financial sector reform. Oluyemi (1995) used the total deposit of deposit money banks (NB) to proxy the extent of growth in banking activities during the financial sector liberalization. This is necessary because of the phenomenal growth in the total deposit of banks since the adoption of the Structural Adjustment Programme (SAP) in 1986.

Intrinsic linearity is used for the relationship between real GDP and its determinants. Thus the functional relationship is expressed as follows

\[ RGDP = f(M2GDP, NB, INT) \]

The structural form is expressed as

\[ RGDP = a_0 + a_1M2GDP + a_2NB + a_3INT + a_4DM + \mu \]

This will be log linearised as

142
logRGDP = a_0 + a_1 \log M2GDP + a_2 NB + a_3 \log INT + a_4 \log DM + \mu

The coefficients in the model are elasticities, since the variables are in logarithm form and as a result measure direct response of economic growth to unit changes in the explanatory variables.

Each of the independent variable is also regressed against the endogenous variable (RGDP) in order to separately know the impact and relationship between each of the independent with the dependent variable.

RGDP = a_0 + a_1 M2GDP + \mu
RGDP = a_0 + a_2 NB + \mu
RGDP = a_0 + a_3 INT + \mu

Where

RGDP = real GDP
M2GDP = ratio of liquidity liabilities to GDP
NB = total deposits of deposit money banks
INT = real interest rate
DM = dummy variable measuring the effect of policy changes
\mu = stochastic variable or error term incorporating other factors that are not considered in the model.

A Priori Expectation

This explains the theoretical linkage on the signs and magnitudes of parameter of the specified functions. A priori expectations are determined by the principles of economic theory guiding the economic relationship among the variables being studied.


\frac{\partial RGDP}{\partial M2GDP} > 0
\frac{\partial RGDP}{\partial NB} > 0
\frac{\partial RGDP}{\partial INT} > 0

Sources of Data

The needed data for the model are real gross domestic product and the ratio of M2 to gross domestic product and dummy variable to cater for policy changes. The data cover the period of 1976-2006. The sources of data are as follows:
Real Gross Domestic Product (RGDP): This study used real GDP as a precedence laid by most past studies to measure economic growth. The real GDP determine the actual level of productivity in an economy. Data was obtained from Central Bank of Nigeria (CBN) Annual Statistical Bulletin and National Bureau of Statistics

Ratio of liquidity liabilities of banks to GDP (M2GDP): this was chosen so as to reflect the size of the financial sector and financial deepening. The extent of financial deepening is an indicator of the overall size of the formal financial sector. Data were obtained from Central Bank of Nigeria (CBN) Annual Statistical Bulletin.

Total deposit of Deposit Money Banks (NB): this was chosen so as to reflect the extent of financial sector liberalization. Total deposit is a good measure of the extent of growth in the banking activities. Deposits provide the working capital, the stock-in-trade of banks. Data were obtained from Central Bank of Nigeria (CBN) Annual Statistical Bulletin.

Real Interest Rate (INT): a suitable measure of financial liberalization is the cost of capital and the return on savings, the volume effectiveness. The real interest rate is included to capture the effects of liberalized interest rates on economic growth. It is used as the proxy for the cost of capital of intermediation data were obtained from the Central Bank of Nigeria (CBN) Annual Statistical Bulletin.

Dummy variable (DM): takes a value of ‘0’ pre-liberalization and a value of ‘1’ post-liberalization

Method of Data Analysis

This study employed time series regression analysis to estimate the model of the study with only one multiple regression analysis to determine the impact of financial liberalisation on economic growth in Nigeria. The test of analysis to be used are; the Augmented Dickey Fuller, the Johansen Cointegration Test and the Vector Error Correction Model (VECM) as the basic techniques of analysis.

The Augmented Dickey Fuller test is used to test the stationarity of the data. The time series properties of the variables used in the model were determined by performing stationary tests. This is because the non-stationarity of the variables will result to the lost of the desirable properties of efficiency, consistency and unbiasedness of the variables if ordinary least technique is used to estimate the model. This will result to spurious results and inferences and hence, inaccurate predictions.

The ADF test is used to determine the order of integration, that is, the number of times a variable has to be differenced before it becomes stationary.

The Johansen Cointegration test determines whether there is an equilibrium condition that keeps the variables in proportion to one another in the long run. The test indicates the existence of a long-run equilibrium relationship between the variables of the model. This is to cater for the problems of spurious correlation associated with non-stationary time series data.
After testing the direction of causality, stationarity of the data and having established the extent and form on cointegration relationship between the variables, the Vector Error Correction Model (VECM) is adopted as the basic techniques of analysis to estimate the impact of the financial liberalisation on economic growth.

Test of statistical adequacy, such as the adjusted R-square, t-statistic, F-statistic, standard error of coefficient, Durbin-Watson were carried out to assess the relative significance of the variables, the desirability and reliability of model-estimation parameters.

**Data Presentation, Analysis & Interpretation**

This chapter focuses on the presentation of data, empirical analyses of specified models of the research work, and the interpretation of the model estimation results.

Data analysis using the Adjustment Dickney-fuller (ADF) test of unit root to confirm stationarity was done by comparing whether the ADF test statistics was greater than its critical values at both 5 percent and 1 percent levels of significance. Also, the cointegration test of long-run equilibrium is established if there is at least one cointegrating relation between variables; indicating that the variables specified in the model have equilibrium condition that keeps them in proportion to each other in the long-run.

Furthermore, the Vector Error Correction Model (VECM) is adopted as the basic techniques of analysis with obtained estimates, the empirical analyses of the result is done with the various decision criteria of economic ‘a priori’ expectation, statistical first-order test & econometric second-order test specified in the immediate past section. From this, valid policy implications were identified and conclusions were drawn.

**Tests Of Analysis**

**Augmentated Dickney Fuller Unit Root Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF test statistic</th>
<th>1 st difference</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RGDP</td>
<td>2.7938</td>
<td>-5.7107</td>
<td>I(1)</td>
</tr>
<tr>
<td>M2GDP</td>
<td>8.0945</td>
<td>-</td>
<td>I(0)</td>
</tr>
<tr>
<td>INTR</td>
<td>-1.9395</td>
<td>-8.7058</td>
<td>I(1)</td>
</tr>
<tr>
<td>NB</td>
<td>1.9029</td>
<td>-6.8557</td>
<td>I(1)</td>
</tr>
<tr>
<td>DM</td>
<td>-0.9183</td>
<td>-5.4406</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

NOTE: LEVELS; CRITICAL VALUES AT 1% = -3.6171, 5% = -2.9422
I(1): critical values at 1% = -3.6289, 5% = -2.9472
The ADF test includes intercept but not a trend.
The Augmented Dickney Fuller Test indicates that all the economic variables included in the models are non-stationary at levels (with the exemption of ratio of broad money supply to gross domestic product; M2GDP); lending credence to the proposition of Granger and Newbold (1974) that most economic data are unit root at levels. However, all the variables maintain stationarity at an integration of order one, I(1), hence, higher order of integration is needless.

**Johansen Cointegration Test**

Since the stationarity of the data is ascertained, at most, at I(1) – (ADF table refers), it becomes imperative to also examine if the variables could be long-run cointegrated. The Johansen Maximum Likelihood (JML) test is conducted with unrestricted intercept.

The order of ADF, which is found suitable and selected for the study, determines the lag length for the model. The VAR of order 2 was not feasible for the study because of insufficient number of observations.

Consequent upon this, the VECM model of order 1 was selected and utilized for this research work. The likelihood Ratio (LR) test based on Maximal Eigen value of the stochastic matrix rejected the null hypothesis that there is no cointegration between the variables (i.e. r=0) but did not reject the hypothesis that there is at least one cointegrating relation between the variables (i.e. r=1) at the 5% significant level.

In summary, the cointegration test for the aggregate model and the disaggregated model showed that the dependent variable; that is, the real gross domestic product (RGDP) does not maintain a long-run equilibrium condition with the explanatory variables (such as the ratio of gross domestic product, M2GDP; the commercial banks’ deposit; the interest rate and the dummy for policy changes respectively) models 1, 2, 3 and 4 respectively. The implication of these estimates obtained is that the variables included in the disaggregated Models 3 and 4 respectively (where interest rate and the dummy variable for policy changes are taken as the independent variables respectively) cannot co-move together and equilibrium condition cannot be maintained, even in the long run situation. However, the holistic model 1 and disaggregated models 2 and 4 show that at least one cointegrating relationship exist between the variables included in the models. As such, long run equilibrium conditions can be maintained between these variables. These estimates are below tabulated as analysed.
Johansen Multivariate Cointegration Tests (Order Of Var = 1)

Model 1: RGDP M2GDP NB INTR

<table>
<thead>
<tr>
<th>S/N</th>
<th>Max.LRtest statistic</th>
<th>5percent value</th>
<th>critical</th>
<th>1percent value</th>
<th>critical</th>
<th>H₀: r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>96.64</td>
<td>47.21</td>
<td></td>
<td>54.46</td>
<td></td>
<td>None**</td>
</tr>
<tr>
<td>2</td>
<td>39.18</td>
<td>29.68</td>
<td></td>
<td>35.65</td>
<td></td>
<td>At most 1**</td>
</tr>
<tr>
<td>3</td>
<td>17.77</td>
<td>15.41</td>
<td></td>
<td>20.04</td>
<td></td>
<td>At most 2*</td>
</tr>
<tr>
<td>4</td>
<td>2.77</td>
<td>3.76</td>
<td></td>
<td>6.65</td>
<td></td>
<td>At most 3</td>
</tr>
</tbody>
</table>

Source: E-views Output

*(**) denotes rejection of the hypothesis at 5 % (1%) significance level.

LR test indicates 3 Cointegrating Equation(s) at 5% significant level.

Model 2 – RGDP M2GDP

<table>
<thead>
<tr>
<th>Max LR ratio</th>
<th>5% Critical value</th>
<th>1% Critical value</th>
<th>Hyp. No of CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.63</td>
<td>15.41</td>
<td>20.04</td>
<td>None**</td>
</tr>
<tr>
<td>0.89</td>
<td>3.76</td>
<td>6.65</td>
<td>At most 1</td>
</tr>
</tbody>
</table>

Source: E-views Output

*(**) denotes rejection of the hypothesis at 5%(1%) significance level.

LR test indicates 1 Cointegrating Equation(s) at 5% significant level.

Model 3 – RGDP INTR

<table>
<thead>
<tr>
<th>Max LR ratio</th>
<th>5% Critical value</th>
<th>1% Critical value</th>
<th>Hyp. No of CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.46</td>
<td>15.41</td>
<td>20.04</td>
<td>None</td>
</tr>
<tr>
<td>1.32</td>
<td>3.76</td>
<td>6.65</td>
<td>At most 1</td>
</tr>
</tbody>
</table>

Source: E-views Output

*(**) denotes rejection of the hypothesis at 5%(1%) significance level.

LR test rejects any Cointegrating Equation(s) at 5% significant level.

Model 4 – RGDP NB

<table>
<thead>
<tr>
<th>Max LR ratio</th>
<th>5% Critical value</th>
<th>1% Critical value</th>
<th>Hyp. No of CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.11</td>
<td>15.41</td>
<td>20.04</td>
<td>None*</td>
</tr>
<tr>
<td>0.42</td>
<td>3.76</td>
<td>6.65</td>
<td>At most 1</td>
</tr>
</tbody>
</table>

Source: E-views Output

*(**) denotes rejection of the hypothesis at 5%(1%) significance level.

LR test indicates 1 Cointegrating Equation(s) at 5% significant level.
Model 5 – RGDP DM

Max LR ratio | 5% Critical value | 1% Critical value | Hyp. No of CE(s)
--- | --- | --- | ---
8.47 | 15.41 | 20.04 | None
2.15 | 3.76 | 6.65 | At most 1

Source: E-views Output
**(** denotes rejection of the hypothesis at 5%(1%) significance level.
LR test rejects any Cointegrating Equation(s) at 5% significant level.

As evidenced in the tables above, long run equilibrium conditions are only maintained between the variables included in the first, second and fourth model (Tables 4.2.2.1, 4.2.2.2 and 4.2.2.4 refer). Hence, the Vector Error Correction Model (VECM) can thus be justified for these models alone.

Regression Result Of The Vector Error Correction Model (Vecm)

Model 1- RGDP M2GDP INTR NB

<table>
<thead>
<tr>
<th>S/N</th>
<th>REGRESSORS</th>
<th>COEFFICIENTS</th>
<th>STD. ERROR</th>
<th>T-STATISTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>D(ECM)_t-1</td>
<td>-0.107</td>
<td>0.081</td>
<td>-1.32</td>
</tr>
<tr>
<td>2.</td>
<td>INTERCEPT</td>
<td>7408.85</td>
<td>4157.78</td>
<td>1.78</td>
</tr>
<tr>
<td>3.</td>
<td>D(RGDP)_t-1</td>
<td>0.154</td>
<td>0.190</td>
<td>0.807</td>
</tr>
<tr>
<td>4.</td>
<td>D(M2GDP)_t-1</td>
<td>1172.42</td>
<td>3327.5</td>
<td>0.3524</td>
</tr>
<tr>
<td>5.</td>
<td>D(INTR)_t-1</td>
<td>-233.78</td>
<td>793.23</td>
<td>-0.295</td>
</tr>
<tr>
<td>6.</td>
<td>D(NB)_t-1</td>
<td>-0.323</td>
<td>0.190</td>
<td>-1.699</td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.090</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistics</td>
<td>1.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E. of Equation</td>
<td>13734</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>2.20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: E-views Output

Model 2- RGDP M2GDP

<table>
<thead>
<tr>
<th>S/N</th>
<th>REGRESSORS</th>
<th>COEFFICIENTS</th>
<th>STD. ERROR</th>
<th>T-STATISTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>D(ECM)_t-1</td>
<td>-0.030</td>
<td>0.009</td>
<td>-3.15</td>
</tr>
<tr>
<td>2.</td>
<td>INTERCEPT</td>
<td>10289.42</td>
<td>2948.5</td>
<td>3.49</td>
</tr>
<tr>
<td>3.</td>
<td>D(RGDP)_t-1</td>
<td>-0.328</td>
<td>0.215</td>
<td>-1.53</td>
</tr>
<tr>
<td>4.</td>
<td>D(M2GDP)_t-1</td>
<td>1172.42</td>
<td>3105.5</td>
<td>-1.702</td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistics</td>
<td>6.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E. of Equation</td>
<td>10863.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion of Findings

From the table above, The ECM coefficient is properly signed (negatively signed) for Model 1 and 2 with -0.107 and -0.030 coefficient respectively. These reveal that the recovery of the economy back to equilibrium once affected by shock in monetary policies are very slow (at about 10.7 and 3% percents respectively) and insignificant at an absolute T-statistics value of 1.32 for model 1 but significant for Model 2 at an absolute T-statistics value of 3.15. However, the ECM coefficient for Model 4 is improperly signed; that is positively related denoting that the Nigerian economy cannot really be affected by the shock in deposit of commercial banks as did indicators of monetary policy. Furthermore, the contemporaneous change in D(RGDP)\(_{t-1}\) for models 2 and 4 are negatively but insignificantly related to their present values at -0.328 coefficient with 1.53 T-statistics value and -0.072 coefficients and 0.38 absolute T-statistics values respectively, indicating that the effect of the previous year’s GDP on its current value is detrimental but insignificant in nature at the 5 percent level. On the other hand, the D(RGDP)\(_{t-1}\) for Model 1 suggest a positively insignificant relationship with an 0.154 coefficient and 0.807 T-statistics value. This denotes that the presence of interest rate on the holistic model has a beneficial effect on contemporaneous change on the previous value of the gross domestic product on its current value.

Specifically, none of the indicators of monetary policies impact significantly on the growth process of the Nigerian economy. From the holistic model 1 and the disaggregated model 2 of the ratio of broad money supply to the gross domestic product – M2GDP (proxied as financial liberalization of the Nigerian economy), the M2GDP is though positively related at the 1172.42 coefficients for both Models but insignificant with an absolute T-statistics value of 0.352 and 1.702 respectively. These indicate that the level of financial liberalization on the growth process of the Nigerian economy is positive but has not been significant in nature. Nevertheless, the interest rate of borrowing is indirectly linked with the economic progress of Nigeria with a
coefficient of -233.78 and an absolute T-statistics value of 0.295 at the 5 percent level of significance. This suggests that the government has engaged so much contractionary monetary policy (a situation whereby the money supply policy was not able to address the investment opportunity trend of the economy) to the detriment of the Nigerian economy.

In tandem with theoretical juxtaposition, this study conforms to the neoclassical growth model propounded by Solow (1956) which suggests that there is no direct link between financial development and the growth progress of an economy and disagrees with Romer (1990) which posited that financial development increases economic growth through its decrease effect on the cost of capital that eventually gingered investment and consequently growth.

Empirically speaking, this work also disagrees with the study of Ozdemir and Erbil (2008) which indicates that clear evidence exists between the long-run growth and a number of indicators of financial liberalization. In this view, it can been accepted that monetary policies as well as financial development does not impact significantly on the growth process of the Nigerian economy both at the 5 percent and 1 percent level of significance. A higher level of significance is even possible for acceptance consideration while its alternative counterpart is rejected at these significance levels.

Generally, the tax has not been productive on the growth process of the Nigerian economy as dictated by the Adjusted R² of 0.074 for Model 3. This estimate indicates that only 7 percent of short-run variation in the Gross Domestic Product (GDP) for Model 3 has been explained for by the variables included in the models.

These explanatory powers corroborate the findings in the estimates as discussed above; thereby re-inforcing the fact that revenue on both value-added and internally generated revenue in the Nigerian economy has not aid the growth process; hence, non-productive.

The F-statistics at values 1.67 and 1.90 for Models 1 and 4 respectively remain insignificant at the 5 percent level while its value for Model 2 is significant with a rate of 6.69 This lends more credence to the overall non-productivity of tax as well as its inability to drive the economy towards growth and development.

The Durbin Watson (d) test for Model 1, 2 and 4 are 2.20; 2.00 and 2.07 respectively. These denote that there are absences of first order serial correlation problem of regression in our model specification as the values revolves around 2 than 0. The implication of this is that the error term relating to an observation is not related to or influenced by the error term relating to another observation are not automatically correlated to one another.

The incentives to save and invest rises as real interest rate are allowed to rise. However, an increase in interest rate which should lead to increase savings may not be. The model indicated an insignificantly strong negative relationship between real interest rate and economic growth. This contravenes the a priori that positive real interest rate are require for growth. Economic growth hinges on the availability and accessibility of loans at the right price. Consequently,
investment spending would be discourage so long as the programmed net returns on investment fails to yield a profitable income

It is expected that an increase in the ratio of liquidity liabilities to GDP (M2GDP) would generate an increase in economic growth. The result showed that there was no significant relationship between the depth of the financial sector and economic growth in Nigeria. In other words, economic growth process could not be explained by changes in the financial sector. This result is not surprising given the distorted, rudimentary and shallow nature of the financial markets in Nigeria.

Summary, Conclusion and Recommendation

Summary

This study examines the impact of financial sector liberalisation on the Nigerian economic growth. Selected indicators of financial development were used. The relationship between the variables was examined by analysing their long-run properties and short-run dynamics. Data were generated from the CBN Statistical Bulletin and Annual Reports and Statement of Accounts and the National Bureau of Statistics’ Economic and Statistical Review.

Stationary test to detect the unit root were conducted using the Augmented Dickey Fuller test (ADF). The ordinary least square regression method was employed to capture the impact of financial development on the economic growth. The e-view was employed to facilitate the ADF test, co-integration test and the error correction model (ECM). The ADF test show that only the proxy for financial deepening, that is, the ratio of liquidity liabilities of banks to GDP, (M2GDP), is stationary at 1 percent and 5 percent critical values while all the remaining variables were stationary at the first (1st) difference at 5 percent critical value. The co-integration test results showed that long run equilibrium conditions are only maintained between the variables when all the exogeneous variables are used together; between the RGDP and M2GDP; and between RGDP and NB when regressed separately. Hence, the Vector Error Correction Model (VECM) can thus be justified for only these models alone.

Conclusion

Economic difficulties led Nigeria and many developing countries to implement the Structural Adjustment Programme. The programmes were aimed at correcting policy distortions and structural imbalances in the economy. The adoption of financial liberalization reforms has been a very laudable initiative given the extent of financial repression that was prevalent prior to these reforms and the stifling effects of repression on both the financial sector itself and on the economy as a whole. The literature had made us expect that if the repressed variables and aggregates were let loose especially price and direction of credit, that savings would rise because real interest rates will rise, and investment will also rise.
The negative effects of rigid financial sector controls especially on savings, and hence on the process of financial intermediation, have led many countries, including Nigeria, to undertake reform of their financial sector. The reform placed greater reliance on the use of market forces and it has led to changes in interest rate policy and expansion of financial activities. All the proxies of the financial sector liberalization were statistical insignificant and only the financial deepening (M2GDP) showed a positive relationship. This shows that the contributions of all the variables have not been significant to the economic growth.

It has also proved that the development of the financial sector will helped in facilitating the real sector which will result into having a virile economic growth (Jhinghan 2003). This also shows that Nigeria still falls short of achieving the efficiency and depth of full-fledged market based financial sector. The intermediation role and investment of the financial sector are not targeted on a long-term basis which is making the real sector of the economy to continue to weak and therefore reducing the productivity level of the economy.

The unexpected signs of some of the explanatory variables could be attributed to factors such as policy inconsistency, policy mortality etc. infrastructural failure in conjunction with high risk and insecurity could have their own effects on savings and investment and consequent on the Nigerian growth process.

**Recommendation**

Financial liberalization is an extremely important component of a successful development strategy. If financial deregulation is implemented in isolation, it is unlikely to promote growth and may, in fact, impede economic development. The importance of achieving macroeconomic stability prior to reform is well known, yet structural reform and institutional development in the financial sector, especially prudential financial supervision, are equally essential as liberalization proceeds.

Measuring the results of reform is extremely important if policy is to be well designed and implemented. The effects of liberalization itself may distort the inferences drawn conventional measures of financial deepening about the success of reform. Consequently, a wide range of performance indicators should be monitored by policymakers.

In order to consolidate the gains of the reform programme, government should avoid drastic policy reversal but rather, it should concentrate efforts in fine-tuning the existing policy measures which will not only compel prudence on the part of major operators in the financial market but also will stimulate saving behaviour of all economic agents. This will go a long way at enhancing fund’s mobilization in the country. Thus, for successful financial reforms in Nigeria, some concrete and innovative approaches must be adopted. Some of the approaches are the capacity for carrying out effective financial reform rests on the underlying regulatory framework and the competence of those entrusted with its implementation. The Central Bank of Nigeria, in order to efficiently discharge its supervisory and regulatory functions, needs
reinforcement of its information system, improved and articulated regulations and enhanced supervision of credit.

Political commitment is important because financial reforms involve difficult decisions regarding cost of credit, the inefficiency of some financial institutions, and the removal of distortions favouring well-entrenched financial constituencies.

Removing obstacles to the deepening and diversification of financial markets creates an enabling environment. The reform of the environment can be organized around these three key objectives:

1. Creating and maintaining a stable macro-financial environment based on stable macroeconomic policies, low inflation and flexible interest rates
2. Establishing an incentive framework and a business climate supportive of entrepreneurship and private sector development
3. Fostering an all-out national training effort in managerial and technical skills in financial operations and the use of proper accounting procedures, and adequate auditing and financial information dissemination

References

Central Bank of Nigeria (CBN) Annual Reports and Statements of Account (various issues)
Central Bank of Nigeria (CBN) CBN Briefs Research Department (various issues)
Central Bank of Nigeria (CBN) Statistical Bulletin (various issues)