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Evaluation of the Nigerian Financial Sector Reforms Using Behavioral Models

B. O. Iganiga

Department of Economics, Ambrose Alli University, Ekpoma, Edo State, Nigeria

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ABSTRACT Recently, the Nigerian financial system has become very volatile in an attempt to keep pace with the global economic phenomenon. To this effect, the sector has been adorned by various reform strategies. Consequently, with the classical least squares technique, this paper sets out to assess the effects of these reforms on the effectiveness and efficiency of the Nigerian financial institutions with emphasis on the banking sub-sector. The results show that the performance of the financial sector has been greatly influenced over time by these reforms that began in 1986. The adoption of market determined cash reserve requirement caused cash intensity and domestic savings to increase by 5.54 and 5.00 percent respectively. The gradual increase in the capital base of these firms has rekindled the public confidence in the sector by increasing savings by 3.6, percent. Also, as government reduce her ownership of financial institutions, most financial development indicators perform better including; financial deepening. However, interest rate deregulation in Nigeria has been accompanied with decline banks credits due to negative (or very high) lending rate with its attendant crowding out effect. The policy implication therefore, is that, monetary authority should direct their efforts towards achieving a positive interest rate regime, increase the scope of financial reforms and these reforms should be seen as a process rather than event to consolidate the emerging confidence in these institutions.

INTRODUCTION

Financial reforms and attendant policy prescriptions are age-long phenomena. They represent the various transformations and policy adjustments and overhaul that are directed at the art, practice, and activities of financial institutions and markets overtime in response to the nominal need for operational improvement and growth of both the institutions and the general economy. They could be internal or external in nature, reflecting critical-cum – comprehensive amendments, restructuring, and/or additions to the existing body of laws, guidelines and policies (Chinedu and Muoghalu 2004).

In Nigeria, the ability of the financial subsector to play its role has been periodically punctuated by its vulnerability to systemic distress and macro-economic volatility, and policy fine tuning inevitability (Kama 2006).

Consequently, the financial reforms were focused on further liberalization of banking business; ensuring competition and safety of the system; and proactively positioning the industry to perform the role of intermediation and playing a catalytic role in economic development.

In many emerging markets, including Argentina, Brazil and Korea, financial reforms have also become prominent as banks strive to become more competitive and resilient to shocks as well as reposition their operations to cope with the challenges of the increasing globalized banking system Each continent, except Africa (with possible exception of South Africa), has a fair share of mega banks to support economic growth and development.

In Nigeria's economic history, the strides of the last few years, which have been internationally acclaimed, was unprecedented. The many reforms that have engendered the current success have largely included those in the financial sector, particularly, the positive policy shifts in the domestic money market as a first step towards a more robust and enduring facilities for the sector. Parts of the expectations are that the improved enabling environment from the reforms would continue to make more investment funds really available through savings.

Given this sordid financial crisis, since 1988 many emerging economies, including Nigeria, embraced financial sector reforms (Akyus and Kotte 1991). Starting in 1986, Nigeria's financial system began to be deregulated and by 1992, substantial changes had taken place. Consistent with trends in other developing countries, institutions and markets are growing and developing, leading to an increasing role being played by the financial system in the development of Nigeria's economy (Onwioduokit 2006). In July 2004, the "mother" of reforms came in Nigeria when 89 banks were forced to emerge culminating in 25 universal banks. This was further reduced to 24 banks at the end of December 2007 with the emergence of Stanbic Bank Plc and IBTC Bank to form Stanbic IBTC Bank Plc.

From the foregoing scenario, the paper is motivated to take a detailed review of the Nigerian financial sector reforms till date, attempt the various methods and strategies used to consummate these reforms and above all, assess the extent to which these reforms have affected the development of the Nigerian financial sub-sector. Apart from this introduction, section two takes a brief review of related literature. Section three examines the various financial reforms programmes so far undertaken in Nigeria. While section four presents the theoretical framework and the model used. Section five discusses the results of the analysis. Conclusion and policy recommendations are presented in section six.

Review of Literature

Reforms are predicated upon the need for reorientation and reposition of existing status quo in order to attain an effective and efficient state (Ajayi 2005). Compos and Esfahani (1996) stressed that policy reform means " a renegotiation of contracts that entails direct government involvement in production towards more efficient market oriented ones" Also, Okeke (2007) posits that reforms are deliberate actions by the government to fast track, jump start and consolidate specified sector of the economy to achieve desired objectives.

Financial reforms, according to Ebong (2006), are deliberate policy response to correct perceived or impending financial crises and subsequent failure. Reforms in the financial industry are aimed at addressing issues such as governance, risk management and operational inefficiencies. The vortex of most financial reforms is around firming up capitalization. Specifically, financial reforms are primarily driven by the need to achieve the objective of consolidation, competition and convergence in the financial architecture (Deccan 2004)

Like other emerging economies, Nigeria has been involved in financial reforms on a regular basis aimed at responding to the challenges posed by some factors and developments such as systemic crisis, deregulation, globalization and technological innovations, or acted proactively both to strengthen the financial system and prevent systemic problems as in the case in the current reforms (Imala 2005).

In Nigeria, financial sector reform was a component of the Structural Adjustment Programme (SAP) which kicked off in 1986. The introduction of the programme was on the heels of the rejection of IMF loan package with its conditionality, a decision that rejected the consensus of a national debate. The major financial sector policies implemented were the deregulation of interest rates, exchange rate and entry/exit into banking business. Other measures implemented included, establishment of the Nigeria Deposit Insurance Corporation (NDIC), strengthening the regulatory and supervisory institutions, upward review of capital adequacy standard, capital market deregulation and the introduction of direct monetary policy instruments (Nnanna et al. 2004).

Deregulation of the financial sector requires a set of indicators that can be used for effective policy formulation, implementation and evaluation. As such, there is no precise definition in the literature of "financial sector development" However, Fry (1978) observed that the key to financial sector development is the reduction and ultimate unification of fragmented financial markets. This involves a complete set of indicators mainly covering credit intermediation, liquidity management and the risk management characteristics of the financial system.

Onwioduokit (2006) posits that it is hard to find an indicator that can directly measure the development of the financial sector. However, from the recent literature, measures of financial development include the ratio of broad money (M_2) to GDP, currency outside bank as a ratio of broad money (M_2), interest rate spread, real interest rate and gross savings as a ration of GDP.

From the literature, it has been observed that well-spaced and implemented financial reforms have the ability to boost these financial development indicators. A peculiar feature of the reform programmes in Nigeria are the associated inconsistencies in policy implementation (Nnanna 2004). However, some studies have shown that the Nigerian financial system has benefited largely from these reforms, but all the same, the system is still yawning for improvement (Adam and Agba 2006).

THE NIGERIAN FINANCIAL SECTOR REFORMS: THE JOURNEY SO FAR

Africa was faced with a myriad of economic problems. Some of these were high inflation and unemployment, increasing poverty, low economic growth rate, high fiscal deficits, huge balance of payments deficits, financial sector repression and worsening terms of trade. The economic crises have been attributed to two main factors, i.e. domestic policy failures and inadequate institutional capacity (Afolabi and Mamma 1994). This implies that the necessary conditions for growth and efficient economic management are the need for adoption of a consistent and appropriate macroeconomic policy framework and the existence of high quality institutions. The introduction of Structural Adjustment Programme (SAP) in July 1986 was an effort to set the macroeconomic policy framework right. One of the components of SAP was the reform of the financial sector, aimed at increasing its efficiency amongst others.

Reforms are predicated upon the need for reorientation and repositioning of an existing status quo in order to attain an effective and efficient state. The financial sub-sector needs to be reformed in order to enhance its competitiveness and capacity to play a fundamental role of financial investment. Anecdotal literature indicates that financial sector reforms are propelled by the need to deepen the financial sector and reposition it for growth to become integrated into the global financial architecture and evolve a banking sector that is consistence with regional integration requirement, savings mobilization and international best practices (Nnanna Englama and Odoko 2004).

Lemo (2005) posits that the primary objective of the reforms was to guarantee an efficient and sound financial sector. He said that the Nigerian financial reforms were designed to enable the banking industry develop the required resilience to support the economic development of the nation by efficiently performing its function of financial intermediation. He further stressed that a fundamental objective of the programme was to ensure the safety of “deposited” money, position banks to play active development roles in the Nigerian economy, and became major players in the sub-region, region and global financial markets.

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The major financial sector reform policies implemented were the deregulation of interest rates, exchange rate and the liberalization of entry/exit into banking business. Other measures implemented included, establishment of the Nigerian Deposit Insurance Corporation (NDIC), strengthening the regulatory and supervisory institutions, upward review of capital adequacy standards, capital market deregulation and some distressed banks were liquidated, while the Central Bank took over the management of others, government share holdings in some banks were also sold to the private sector.

For the purpose of this analysis, a bird-eye view will be taken of some financial sector reforms in recent times (Nnanna 2002) for the details and sequencing of the reform measures.

A. Establishment of the Nigeria Deposit Insurance Corporation (NDIC)

Deposit insurance system are largely established to protect the banking system against possible *bank run* (unrestricted demand for cash by savers) that can cripple the financial intermediation process, disrupt the payments system, and have severe macro-economic effects (Mass and Talley 1990). These systems (i.e. implicit formal and explicit informal deposit insurance schemes) also protect small depositors from losses in the event of bank failure and give the nation a formal and consistent mechanism for resolving failing bank situations.

The establishment of NDIC was informed by economic circumstance under the Structural Adjustment Programme (SAP), especially policies relating to banks shareholders support, and because of the bitter experience of previous bank failures in Nigeria and the lesson of other countries with bank deposit insurance scheme (Ebhodaghe 1991).

The NDIC was established by Decree No. 22 of 1988 and charged with the following responsibilities.

(a) Insuring all deposit liabilities of licensed banks and such other financial institutions operating in Nigeria so as to engender confidence in the Nigerian banking system. Certain deposit liabilities are exempted-insider deposit (i.e. deposits of staff), and counter-claims, where a customer uses one type of account to collateralize another account.
(b) Giving assistance in the interest of depositors, in case of imminent or actual financial difficulties of banks, particularly where suspension of payments is threatened and avoiding damage to public confidence in the banking system. Such assistance could be (1) taking over the management of a distressed bank. (2) specific changes recommended to be made in the management of the distressed bank (3) a merge with another bank is carried out.
(c) Guaranteeing payments to depositors in case of imminent or actual suspension of payment by insured banks or financial institutions up to the maximum amount of N50, 000 of assessable deposit of an insured bank in the event of the failure.
(d) Assisting monetary authorities in the formulation and implementation of banking policies so as to ensure sound banking practice and fair competition among banks in the country.

The corporation has made significant impact in two areas – the development of bank directors and top management staff and assistance to insured bank experiencing liquidity problem. Since its inception, NDIC has contributed significantly to the budget of the Financial Institutions Training Centre (FITC). In 1989, the sudden withdrawal of government funds from the licensed banks to the Central Bank of Nigeria brought the nascent institution into focus when the NDIC/CBN jointly organized accommodation facility was introduced to assist banks in serious liquidity crises. Financial assistance amounting to ₦2.3 billion was provided under the scheme.

More so, the importance of NDIC was brought to focus in 1994 and 2006 when more than half of the nation's banks and other financial institutions were submerged in distress and the bank consolidation exercise of 2004 – 2005 respectively.

B. Promulgation of the CBN Act No. 24 of 1991 and the Banks and Other Financial Institutions Act (BOFIA) No. 25 of 1991

These two banking laws affect the Nigerian financial system so much. The CBN Act No. 24 of 1991 repealed the CBN At of 1959 and the Banking Decree of 1969 was repealed by the banks, and other financial institutions Act No. 25 of 1991.

Following a further amendment of CBN Act of 1991, in 1998 and 1999, the decree and amendments significantly enlarged the powers of CBN with respect to the maintenance of monetary stability and sound financial systems. The amendment further granted autonomy to CBN in the formulation and implementation of monetary and financial policies. Furthermore, the CBN Decree No. 24 and the Banks and Other Financial Institutions Decree (BOFID) seek to introduce changes in regulations that can promote the development of the financial sector in a deregulated environment.

As a result, the number of commercial banks which stood at 14 in 1970, moves to 29 (107%) in 1986 and by 1993, it was 66 (128%), but dropped to 54 (-18.2%) in 1998 as a result of bank failures, only to climbed to 89 by 2004 (CBN Stat. Bulletin 2006).

C. Introduction of Prudential Guidelines in 1990

The prudential guidelines issued by CBN in November, 1990 were aimed at ensuring a stable, safe and sound banking system. It is meant to serve as a guide to banks to:
(i) ensure a more prudent approach in their credit portfolio classification, provision for non-performance facilities, credit portfolio disclosure and interest accrual on non-performing assets.
(ii) ensure uniformity of their approach in (i) above and ensure the reliability of published accounting information and operation.

The ultimate justification for prudent guidelines is the failure of the market not only to reflect a depository's risk exposure, but more importantly to control such exposures. The objectives of prudential regulations are, therefore, to control such exposures. The objectives of prudential regulations are, therefore, to protect the interest of depositors and the financial system as a whole. Furthermore, efficiency consideration comes up as another justification for prudential regulation.

Steps were also taken to strengthen the capital base of banks. The minimum paid-up capital of banks was increased from ₦20 million to ₦50 million for commercial banks with effect from 1992. In the light of naira exchange depreciation, the persistence of inflationary pressures, and the erosion of the capital funds of banks by non-performing credit, the minimum paid-up capital requirement of commercial banks were increased from ₦50 million to ₦500 million in December 31, 1998. Existing banks were required to meet this requirement over a transitional period of two years, expiring December 31, 1998, while new banks shall comply fully with that condition before they are licensed. However, this was reviewed upward from ₦500 million to N2 billion in 2002.

Again, to ensure that banks contribute to the Nigerian economy as well as the need to ensure consistency with international standards, the minimum paid-up capital for commercial banks was increased from ₦2 billion to ₦25 billion in July 6, 2004 and all the banks are expected to comply on or before December 31, 2005.

D. Introduction of Universal Banking

In 2001, the Central Bank of Nigeria adopted the universal banking policy thereby abrogating the classification of banks by the nature of their business that existed hitherto. This is a system that provides a level field for retail and wholesale bankers to interact. It breaks the boundary between retail and wholesale banking.

E. Establishment of More Discount Houses

In order to facilitate the development of a secondary market for government debt instruments so as to reducing government dependence on the CBN financing of its deficit, three discount houses were licensed in 1992. In addition to intermediating funds among financial institutions, the discount houses were also expected to promote primary and secondary markets for government securities.

F. Removal of Credit Ceilings

In September 1992, credit ceilings on banks that are adjudged healthy by CBN were lifted. A bank was considered healthy if it met CBN guidelines on certain specified criteria in the preceding three months. These criteria were: cash reserve, liquidity ratio, prudential guidelines, statutory minimum paid-up capital, capital adequacy ratio, and sound management. With the application of these criteria, about 80 banks were endorsed as healthy and exempted from credit ceilings (Nnanna 2005). The same criteria were applied for determining banks that qualify to participate in the official foreign exchange market.

G. The Nigerian Bank Consolidation Programme of 2005

The two major elements of the reform agenda are the requirement for Nigerian banks to increase their shareholders funds to minimum of ₦25 billion by the end of December 2005 and consolidation through Mergers and Acquisition (M and A). The consolidation of the Nigerian banking system started after the announcement of July 6, 2004 by the Governor of Central Bank of Nigeria of the 13 – Point agenda of banking sector reforms.

The series of reforms that results from there culminated in sieving the "wheat" (viable) from the chaff (non-viable) banks with 25 new banks emerging from the 89 banks previously in existence.

Other components of the reform agenda include:

a) Phased withdrawal of public sector funds from banks
b) Adoption of a risk-focused and rule-based regulatory framework
c) Adoption of zero tolerance in the regulatory framework, especially in the area of data and information rendition/reporting
d) The automation of the rendition processes of resource by banks and other financial institutions through the electronic Financial Analysis and Surveillance System (e-FASS).
e) Establishment of an Asset Management Company as an important element of distress resolution.
f) Promotion of the enforcement of dormant

laws, especially those relating to the issuance of dud cheques and the law relating to the vicarious liability of the Board of banks in the case of bank failure

g) Closer collaboration with the Economic and Financial Crimes Commission (EFCC) in the establishment of the Financial Intelligence Unit (FIU) and the enforcement of the anti-money laundering and other economic crime measures.

h) Rehabilitation and effective management of the mint.

One of the major characteristics of the financial sector reforms over the years is the disorderly manner in which the reforms have been implemented in Nigeria (Ebong 2006). Different regimes in Nigeria mean different reforms strategies and the abandonment of existing ones. This discontinuity leads to non-smooth sailing reform process and thus, obscured the appraisal and outcome of these reforms.

THEORETICAL FRAME WORK AND MODEL SPECIFICATION

A. Theoretical Framework

The debate on the role of financial intermediation and the financial system in economic development was revived by Mckinnon (1973) and Shaw (1973). In the debate, the functions of financial institutions in the saving-investment process were underlined as being an effective conduit for the mobilization and allocation of capital by equilibrating the supply of loan able funds with the demand for investment funds, and the transformation and distribution of risks and maturities (Nssanke 1991).

There is also a theoretical link between financial policy reforms and money market operations. In the conventional Keynesian theory and policy, impact of monetary policy can be transmitted to the rest of the economy through the monetary system. For instance, there is the assumption that in the presence of an efficient money market, interest rate elasticity permits the allocation of funds among competing uses in an efficient way. It is believed, therefore, that liberalization of interest rate, accompanied by price competitiveness of the banking system would stimulate the rate of savings in a given level of income and hence supply of domestic capital (Ndekwu 1987).

In Shaw's paradigm, expanded financial intermediation between savers and investors, under ideal conditions, increases incentives to save and invest and also raises the average efficiency of investment. Additionally, it further raises real returns to savers, while also lowers real costs to investors by accommodating liquidity preferences. It could also lead to reducing risk through diversification, reaping economic of scale in lending, increasing operational efficiency and lowering information costs to both savers and lenders through specialization and division of labour (Nssanke 1991).

Theories suggest that economic and social development can be accelerated by an efficient, competitive financial sector. This, in turn, requires a large and diversified universe of savers and financial intermediaries and a wide range of financial instruments and issuers to provide a "critical mass'' of activity to warrant the necessary financial market infrastructure (Adam and Mistry 1990).

Among the critical policies that influence financial system is the deregulation of the interest rate and financial system, however, resulted in greater competition involving the use of both price and non-price variables (Terriba 1986). Government restrictions in the financial subsection hinder financial development and, ultimately, economic growth (Schupeter 1934).

B. Model Specification

In light of the above discussion, our econometric model is explored. The models followed that of Omole's, but with emphasis on the indicators of financial development, using the ordinary least squares technique. Our choice of this approach is premised on two reasons. First, the Gaus-Markov theorem portends that the least squares technique is the best linear unbiased estimator, with which straight line trend equations could be estimated. Second, this version of the straight line trend model has been used by Ike (1984) Omole (1993) and Adam (1998), with good results to conduct a financial appraisal of the Nigerian financial market.

Since it may be difficult to separate the impact of deregulation and privatization on these financial development indicators in a water tight component, we have resolved to specify our models using dummy where necessary. The models are specified within the ambit of each financial development indicators as follows:

Table 1: Pre –reforms empirical results (1970-1986)

Dependent variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
CONST.	3.35 (1.311)	3.34 (2.89)	10.31 (3.21)	4.53 (1.12)	3.31 (0.21)
INT_t	4.83 (3.91) ***	10.32 (6.32) ***	-1.191 (-0.24)	5.36 (2.61) **	-10.38 (-0.24)
CAB_t	0.53 (1.01)	-1.31 (-1.09)	1.39 (6.21) ***	3.86 (2.54) **	-2.09 (-0.95)
OWN_t	1.92 (1.86) **	0.56 (3.15) ***	9.21 (2.56) **	-0.51(-1.35) *	10.36 (0.89)
CRR_t	1.89 (-3.11) ***	-3.68 (-1.31) *	0,53 (0.42)	3.69 (0.31)	-1.31 (-0.12)
MRR_t	-3.81 (-1.05)	9.29 (3.45) ***	1.32 (2.56) **	-1.10(-4.11)	-4.35 (2.05) **
DER_t	-9.34 (-1.34)	1.39 (5.02) ***	1.31 (0.56)	-1.11(-1.09)	5.06 (1.36) *
STAT.					
R^2	0.63	0.76	0.45	0.46	0.83
DW	2.52	1.31	1.53	0.13	2.65
F- stat.	131.36	69.34	29.25	119.24	161.54

Note: *,** and *** indicate that the variables are statistically significant at 1, 5 and 10 percent respectively (t-values are in parenthesis).
Source: Author's Computation

a. Financial Deepening Models (1)

$$(M_2/GDP) = \underset{}{a_o} + \underset{(+)}{a_1 INT} + \underset{(-)}{a_2 CAB} + \underset{(-)}{a_3 OWN} + \underset{(-)}{a_4 CRR} + \underset{(-)}{a_5 MRR} + \underset{(+)}{a_6 DER}.$$

b. Financial Widening Model (2)

$$(PSC/GDP) = b_o + \underset{(-)}{b_1 INT} + \underset{(+)}{b_2 CAB} + \underset{(+)}{b_3 OWN} + \underset{(-)}{b_4 CRR} + \underset{(-)}{b_5 MRR} + \underset{(+)}{b_6 DER}.$$

c. Cash Intensity Model (3)

$$(COB/M2) = c_o + \underset{(-)}{c_1 INT} + \underset{(-)}{c_2 CAB} + \underset{(-)}{c_3 OWN} + \underset{(-)}{c_4 CRR} + \underset{(-)}{c_5 MRR} + \underset{(-)}{c_6 DER}.$$

d. Interest Rate Spread Model (4)

$$RIS = do + \underset{(+)}{d_1 INT} + \underset{(-)}{d_2 CAB} + \underset{(-)}{d_3 OWN} + \underset{(-)}{d_4 CRR} + \underset{(-)}{d_5 MRR} + \underset{(+)}{d_6 DER}.$$

e. Gross Domestic Savings Model (5)

$$(GDS/GDP) = e_o + \underset{(+)}{e_1 INT} + \underset{(+)}{e_2 CAB} + \underset{(+)}{e_3 OWN} + \underset{(+)}{e_4 CRR} + \underset{(+)}{e_5 MRR} + \underset{(+)}{e_6 DER}.$$

Note: The Signs in parenthesis are the a priori expectations based on the theoretical framework. Where,

(GDS/GDP)	Ratio of Gross Domestic Savings to gross domestic Product.
(M2/GDP)	Ratio of Broad money to Gross Domestic Product
(PSC/GDP)	Ratio OF Private Credit to Gross Domestic Product.
(COB/M_2)	Ratio of cash out of bank to Broad money
RIS	Interest Rate Spread
OWR	Ownership structure
CAB	Capital Base
MRR	Minimum Rediscount Rate
CRR	Cash Reserve Ratio
DER	Period of deregulation

EMPIRICAL RESULTS

The estimated results are presented in tables 1, 2 and 3. The models were estimated using published data from the Central Bank of Nigeria (CBN), National Bureau of Statistic (NBS), the International Monetary Fund (IMF), and the World Bank. The micro fit econometric software was used in the estimation, while the CLS technique was applied. The discussions are as follows:

Table 2: Reforms empirical results (1987-2008)

Dependent variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
CONST.	12.52 (3.09)	25.62 (12.62)	15.86 (0.72)	10.89 (1.39)	0.32 (1.52)
INT_t	3.62 (1.26)	13.69 (2.36) **	-1.89 (1.05)	11.03 (0.23)	1.89 (2.52) **
CAB_t	5.06 (2.05) **	10.32 (5.39) ***	9.35 (4.34) ***	13.69 (4.21) ***	-8.09 (-2.52) **
OWN_t	0.51 (2.15)	3.34 (5.35) ***	3.41 (2.05) **	5.31 (2.08) **	-1.41 (-1.52)
CRR_t	-1.41 (-0.35)	5.54 (2.71) **	5.62 (0.59)	3.39 (1.36) *	5.61 (2.89) **
MRR_t	-9.06 (-1.62) *	2.31 (1.91) **	0.21 (3.05) ***	5.26 (2.56) **	3.21 (2.59) **
DER_t	10.31 (2.06) **	3.36 (2.52) **	-1.34(-2.15) **	4.32 (1.39) *	5.09 (3.89) ***
STAT.					
R^2	0.42	0.98	0.52	0.39	0.52
DW	1.95	2.69	3.21	3.52	1.09
F- stat.	51.62	59.21	119.32	109.39	116.14

Note: *,** and *** indicate that the variables are statistically significant at 1, 5 and 10 percent respectively (t-values are in parenthesis).
Source: Author's Computation

Table 3: Pooled empirical results (1970-2008)

Dependent variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
CONST.	12.31 (6.21)	3.31 (1.56)	13.21 (5.32)	15.11 (1.62)	1.11 (1.21)
INT_t	10.32 (2.05) **	2.14 (2.52) **	6.39 (0.21)	11.41 (1.02)	2.05 (0.75)
CAB_t	9.67 (3.12) ***	6.14 (3.56) ***	10.31 (5.31) ***	-3.41 (-1.05)	3.61 (5.32) ***
OWN_t	3.68 (1.34) *	-1.21 (-3.09) ***	-0.62 (-1.32) *	-5.31 (-4.09) ***	2.63 (1.06)
CRR_t	3.41 (2.42) **	8.39 (1.51)	-3.41 (-2.06) **	-10.71 (-1.09)	11.31 (6.05) ***
MRR_t	6.39 (3.23) ***	-1.09 (-4.03) ***	4.34 (1.84) **	10.09(2.460) **	10.14 (1.32) *
DER_t	7.32 (1.21)	11.09 (3.21) ***	-7.31 (-1.03)	-2.31 (-1.91) **	11.41 (2.51) **
STAT.					
R^2	0.72	0.62	0.54	0.75	0.45
DW	1.62	2.14	2.54	1.24	3.62
F- stat.	244.09	121.62	109.2	121.09	121.69

Note: *,** and *** indicate that the variables are statistically significant at 1, 5 and 10 percent respectively (t-values are in parenthesis).
Source: Author's Computation

Panel A represents the pre-reforms era which was characterized by proper regulation of the financial sector in Nigeria including all its paraphernalia. The financial deepening equation as represented by model I has the ratio of broad money to gross domestic product- (^{M2}/GDP) as the dependent variable. The independent variables include indices of financial sector reforms (INT_t, CAB_t, OWN_t, CRR_t, MRR_t) and a dummy variable representing when deregulation was introduced into the financial sub sector (DER_t). Some of the variables were correctly signed and significant. In explaining changes in the level of financial depth for instance, arbitrary fixing of interest rates by the monetary authorities has a positive significant impact on financial depth at 1 percent level. Also, minimum rediscount rate has a repressive effect on the depth of financial development during the regulatory period as shown by the negative coefficient.

Financial width and cash intensity in the economy is represented by models 2 and 3 respectively. Interest rates in these models are still statistically significant. Cash reserve ratio has a dampening impact on cash intensity and financial width in the economy. Thus, 10 percent increase in cash reserve ratio reduced cash intensity in the economy by about 37 percent. Ownership structure coefficient in model 3 increased in cash intensity by 92 percent and it is statistically significant at 5 percent level. This may not be unconnected with the fact that as government ownership increases, more funds are released into the financial sector.

Interest rate spread and gross domestic savings as indicators of financial development are represented by models 4 and 5 respectively in table 1. The minimum rediscount rate is statistically significant at 5 percent in both models. 10 percent increase in the rate of interest at which CBN gives out loans to banks and other related financial institutions reduced interest rate spread and gross domestic savings by 11 and 44 percent respectively. A 10 percent increase in the capital base, of the institutions reduces interest rate spread by 21 percent. This further supports the augments that increase in the capital base helps to narrow the gap between lending and deposit rates in the economy to stimulus investment.

The level of gross domestic savings as indicator of financial development represented by model 5 seems to be the best well behaved of all the models in panel A. Virtually, all the coefficients has the appropriate sign with the coefficient determination at 83 percent and a negligible incidence of auto correction of 2.25. The results of the regression equations test the association between financial development indicators and the various reforms strategic tools.

Theoretically, with financial reforms policy in place, we would expect the coefficients of equations 1 to 5 to be mixed based on the indicators. On the average, we expect them (coefficients) to be positive, since liberalization is expected to ease the financial intermediation process and hence boost the savings and investment behaviour of the depositors and the borrowers respectively.

From the results, variation in interest rate increased financial expansion and savings mobilization by 13.7 and 1.9 percent respectively. More so, these impacts are significant at 5 percent level. The gradual increase in the capital base of the banks, has further rekindled public confidence in the banking sub-sector. This is evidenced in models 1-4 as all the coefficients are all positive and significant. Specifically, a unit increases in the capital base of these financial institutions, financial expansion and activities and would increase by 10.32 percent. Unfortunately, interest rate spread widened, thus, crowding out investment in the system.

An increase in the cash reserve regime boosts financial expansion and saving by 5.54 and 5.06 percent respectively in models 2 and 5. Cash intensity in the economy increased by 5.62 percent due to increase in cash reserve requirement as theoretically expected.

The deregulation dummy coefficient is significant for all the financial development indicators. This clearly confirmed that with the introduction of frame liberalization marked a turning point in the Nigerian financial system. Iyuna and Udegbunam (1998) had similar results in their research

Financial widening model seems to be most well performed of all the models in panel B. with 98 percent coefficient of variation and Durbin Watson value of 2.69.

This is pooled data that cuts across both pre and post financial sector reform era. It represents total effects of the specified variables on financial development. From the results, it could be observed that a unit increase interest rate generally increase financial depth and width by 10.32 and 2.14 percent respectively. Similarly, variation in the capital base of these firms impact positively on these indicators by 9.67 and 6.14 percent respectively.

As government relinquishes her ownership of these financial institutions, these financial institutions perform better. This could be seen in the positive values of 3.68 and 2.61 percent for financial depth and savings mobilization models respectively. The rate at which CBN gives loans to these institutions caused financial growth to fall by 1.2 percent in model 2. Unfortunately, discount rates fuel interest spread and savings mobilization by 10.09 and 10.14 percent respectively, and these coefficients are significant. This may not be unconnected with the impacts of other inter-vening variables in the system.

Deregulation of the sub-sector improved the savings habit of the people by 11.41 and reduced interest rate spread by 2.31 percent significantly.

Financial deepening model performed better with 72.5 coefficient of determination with the highest value of 244.09 for the global test (F) and a mild incidence of autocorrelation value of 1.62.

From panels A-C, the tentative general conclusion one can make for now, based on the regression results is that, the performance of the financial sector has been greatly influenced over time and by implication, being influenced by the reforms that characterized the period under review.

To further appreciate the impact of financial reforms on the Nigerian financial sub-sector over the years, we present a simple summary of the growth rates of the financial performance indicators. This demonstrated more clearly the value of these indicators before and after the reforms in table 4.

Table 4: Financial development indicators in Nigeria (1970 – 2008)

Indicators (%)	*Before reforms (1970 – 1986)*	*During reforms (1987 -2008)*
M2/GDP	26.7	22.8
Private Sector Credit/ GDP	16.8	14.4
Currency outside Bank/M2	23.0	15.7
Interest rate spread	1.8	10.7
Real interest Rate	-8.1	-15.5
Gross Savings/GDP	7.1	12.6

Source: CBN Statement Bulletin 2008

Briefly, from table 4, we can observe that the savings habit of Nigerian improved drastically from 7.12 percent in the regulation period to 12.62 percent in the reform era. Also, cash intensity fell from 23.0 percent before the reforms period to 15.7 percent during the reform period, showing that the economy is becoming less cash intensive with the advent of ATM cards and other credit facilities

Contrary to expectation, financial depending ratio worsened from 26.7 percent in the pre-reform era to 22.8 percent in the reform era. This clearly indicates that financial sector reforms in Nigeria did not achieve the purpose of financial deepening as entrenched in the theory. Also, interest rate spread worsened from 1.8 percent during the pre-reforms period to 10.7 percent in the post reforms period against a' priori expectation.

POLICY IMPLICATIONS AND CONCLUSION

This paper has examined the impact of financial reforms in financial development with special emphasis on banks in Nigeria. It will be appropriate to assert that the reform measures have had a solitary impact on the financial market and the banking sub-sector in particular.

From the analysis, it is evident that the adoption of market determined interest rates, and capitalization as opposed to determined or pegged rate have triggered a significant realignment of financial depth, width and savings mobilization. This is consistent with the findings of Obadan and Odusola (1999). However, interest rate deregulation in Nigeria has been accompanied with declining banks credits because lending rates have been negatives (or very high) leading to high interest rate spread (lending savings margins) culminating in crowding out investors from sourcing loans from these institutions. As the government reduces her ownership of financial institutions, most financial development indicators perform better including savings mobilization and financial deepening.

With respect to the dummy variable, the findings support the view that financial liberalization promotes the efficiency of the financial intermediation process. This result corroborates the conclusions of other studies (Fry1991; Tella and Okosun 1993; Obadan and Odusola 1999).

The policy implication of these results is that the monetary authorities should direct their efforts towards achieving a positive interest rate regime, increasing the scope of financial reform arsenal including financial instruments and improving the regulatory framework. There is need to lower lending rate in Nigeria. Moderate lending rate regimes have worked well for East Asian Countries of Hong Kung, Taiwan, South, Korea, Singapore, etc.

A device for raising the level of competition in the banking industry is to allow free entry of new banks. Similarly, a device for continuous review of bank's capital base should be instituted. Branch banking should be encouraged, reduce government ownership of financial institutions, and lending savings margins should be zero equivalents. Finally, based on the findings of the study, one may recommend that monetary authorities should continue with the policy reforms to consolidate the emerging confidence in these institutions.

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