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Banking Sector Reforms and Economic Growth In Nigeria: A Comparative Analysis of Pre And Post Reform Eras

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Abstract: Reforms in a country's financial sector are aimed at building a strong and vibrant economic and financial system. This study examines the impact of pre and post banking reforms on the economy of Nigeria using the ordinary least squares. Unit root test, co-integration, the test of difference, and error correction model were employed to determine the spuriousness or authenticity of the data and to determine the long run relationship between the dependent and explanatory variables, among others. Secondary data were sourced from the Central Bank of Nigeria Statistical Bulletin from the period of 1991–2016. The growth rate of Gross Domestic Product is used as a proxy for economic growth. Bank capital base, credit to the private sector, cash reserve ratio, return on equity, and network expansion exercise are proxies for banking sector reform indices. The finding shows that so far, the reforms are yet to make any meaningful contribution to the economic growth of the country, though the study suggests that the reforms may be positively impactful on the economy in the long run. The study recommends that network expansion by banks which engenders financial inclusion should be encouraged. There is also the need to encourage the channelization of more credit to the private by banks by guaranteeing an atmosphere of peace and security among other constraints to enable the private sector to thrive.
Keywords: comparative analysis, banking reforms, economic growth, pre reforms, post reforms.

INTRODUCTION

Reforms in the Nigerian banking sector has spanned over so many decades. One of the reforms took place in 1976 with the aim of taking control of the economy from the foreign dominance and place it in the hands of the citizens in the private sector among which is the banking sector. This gave rise to the indigenization decree by the then military administration. During the period, two important developments dominated the banking sector; the first was 60% ownership acquisition of the banks by Nigerians and the second was the constitution of the financial system review committee [1]. This period witnessed a more intensive intervention in banking by the public sector in the light of the perception of the link between finance and development and the desire to maximize the banking sector contribution to the Nigerian economy. The entire objective of the policy seemed to have been marred by lack of policy continuity and corruption.

The next phase of the reform which was targeted at improving the capital base of banks to ₦2 billion commenced in 1986. This period witnessed an increase in the number of deposit money banks from 41 to 119. As a result of non-compliance to the requirements of the reform by banks, there was a high incidence of bank distress in the 1990s. The banking sector continued in this manner until 2004 when the Central Bank of Nigeria (CBN) came up with a policy pronouncement on consolidation and recapitalization of Nigerian banks, with the aim of increasing the capital base, improvement in the regulatory framework and the general overhaul of the entire financial system. According to Soludo [2], the banking reform was a corrective measure which was inevitable in the face of imminent major banking crisis and the need to reposition the banking industry to grow the domestic economy.

Before the 2004 reform, the banking sector was a case of a system that was heading towards a total collapse as cases of liquidation and failure arising from weak capitalization and operational inefficiency were common [3].

The issue of non-performing loans of banks in Nigerian is a problem which the Central Bank of Nigeria (CBN) and the regulatory authorities have had to contend with the high level of illiquidity that jeopardized and threatened depositors' funds and posed a systemic risk. The need to foster financial stability, revive public confidence in the banking system and to stop the likelihood of a run on banks was urgently needed; this was directed at ensuring that deposit money banks in Nigeria become more competitive and to elicit desired standards in service delivery. The regulatory authority, the Central Bank of Nigeria, also enforces compliance with established laws to guarantee good corporate government practices in the banks. After the banking crisis of 2008, the Central Bank of Nigeria articulated a blueprint which is called "The Project Alpha Initiative" for Nigeria banking sector reforms and the financial system in general,

Before this reform there was abuse of the laudable objective of the universal banking system. Added to the scenario was the unsteadily interest rate regime that could hardly counter inflationary pressures. The Nigerian financial system and indeed the Central Bank of Nigeria were also saddled with currency management crisis as most of the transactions were done with cash with attendant risk and high costs. This gave room for the policy on cashless economy as an important phase in the reform.

STATEMENT OF THE PROBLEM

Before the commencement of the Treasury Single Account (TSA), the dependence of banks on deposit from the three tiers of government and parastatals was of great concern to the CBN. According to CBN [6], this accounted for about 40% of total deposit liabilities, thus making government revenue vulnerable to swings. This led to loss of confidence and fear which made Nigerians to invest their money in properties and other forms of less risky investments. Studies have shown that Nigerians held over ₦600 billion as currency outside the banking system [4]. This is not healthy for the banking system and economy in general. The fear that the banking sector was moving towards a total collapse led the CBN to introduce the reforms of 2004 which were believed would fast track the sector.

The Nigerian economy relies heavily on global imports of consumer and industrial goods; causing severe strain on the management of foreign exchange. To determine the most favourable exchange rate therefore posed a key challenge to the managers of the economy [5]. Before the reform, the banking sector experienced increased spate of bank failure arising from poor asset quality, illiquidity and poor corporate government. The ugly trend was compounded by the effect of the global financial meltdown, with the resultant erosion of public confidence in the Nigerian banking system. The problem of government imposed discriminatory interest rate, forced financing of government fiscal deficits by banks and weak corporate government have led to low financial depth occasioned by lack of infrastructure and underdeveloped financial system, low level of private sector credit, so high and wide interest rate spread caused occasioned by high inflation.

LITERATURE REVIEW

Review of Recent Reforms

Soludo (one-time governor of CBN) championed the reforms in the banking sector in 2004, [7]. These reforms include: strengthening institutional framework for the conduct of monetary policy; recapitalization and consolidation of banks which will make the bank capital base to be stronger; reduction of government ownership or influence on the banks; enforcement of corporate government principles in banks with standard of global best practices; non-tolerance to data rendition and misreporting; strict adherence to the anti-money laundering regulations; implementation of Basel II principles and risk based supervision of the banking system; introduction of payment system to allow for efficiency, especially the e-payment; the reform of the exchange rate management system; adaptation of Wholesale Dutch Auction System (WDAS) and increased liberalization of the foreign exchange market which since 2006 led to the convergence of the parallel and official exchange rates for the first time in 20 years; emphasis on issues of technology and skills in the banking industry especially in Risk Management and ICT; introduction of a flexible interest rate based framework; launching of a new microfinance policy and regulatory framework to reach the unreached 65 percent of the bankable public; expeditious process for rendition of returns by banks; pension, consumer credit, and mortgage system reforms; forging of the Central Bank of Nigeria also encouraging the strategic alliances and partnership between Nigerian banks and foreign financial institutions especially in the area of reserve/asset management.

Bank Recapitalization and Consolidation

The recapitalization and consolidation programme was necessitated by the need to strengthen the deposit money banks. According to Imala [8], as at December 2004, no bank was rated very sound during that period. Soludo [4] noted that the policy thrust at inception was to grow the banks and position them to play pivotal roles in fostering development in all sectors of the Nigerian economy. The capital base requirement of banks was raised from N2 billion to a minimum of N25 billion, which reduced the number of deposit money banks from 89 to 25 in 2005 and later to 24.

Sanusi [9] stated that bank consolidation was achieved through the process of mergers and acquisitions of banks. It has directly altered the nature of competition in the banking industry in Nigeria. This policy has also effectively raised entry barriers for those wishing to embark on banking business.

Although in the Nigeria case, it was that of government-led consolidation which stems from the need to resolve the problem of financial distress in order to avoid systematic crisis as well as restrict inefficient banks Ajayi [10].

Cashless Policy

In order to address the challenges in Nigeria currency management, the CBN introduced "cashless' policy which is an important part of the reform and it will in improving the nation payment system. The operation cost of the banking industry is huge because the transaction of goods and services was largely carried out with cash imposed on the customer's high transactions and operational costs in the form of high service charges incurred in movement of cash, management of cash, currency notes printing.

The cash management direct cost to the banking sector was estimated to be about ₦200 billion by 2013. Record has shown that 85% of bank withdrawals was below ₦150, 000 which show that 15% of customers withdraw more than ₦150,000. This is responsible for the increase in cost of cash management being incurred by the customers in general. In moving a large amount of cash or keeping a large amount, there is a high risk involved. This is because of the cases of robberies and currency notes mishandle etc. With all this, the CBN and the bankers committee came up with the policy with the aim of achieving a society where a higher size of financial transactions are done by electronic payment or cheques in line with global best practice.

The CBN recognizes the need to balance the objectives of meeting genuine currency transaction demand and combating speculative market behaviour that may negatively affect economic growth and stabilization measures. The new cash withdrawal policy will ensure that a larger proportion of currency in circulation is captured within the banking system, thereby enhancing the efficacy of monetary policy operations and economic stabilization measures.

According to Sanusi [11], the policy would not in any way stop account holders from withdrawing any amount of money they desire from their accounts. The policy simply recognizes that banking is a business and, as with any business, there are costs that are sometimes shared between the business and the customers. The policy stipulates that to withdraw more than ₦150,000 (for individual account holders) and more than ₦l,000,000 (for corporate account holders), there will be a transaction cost Sanusi [12].

Asset Management Corporation of Nigeria (AMCON)

The issue of non- performing loans has led to increased spate of bank failures, thus, leading to the establishment of the Asset management corporation of Nigeria (AMCON) in 2010. The aim is to address the problem of non-performing loans in the banking sector. In line with its mission, AMCON has boosted the liquidity of banks by procuring banks non-performing risk assets worth over 1.7 trillion. This has given the banks a new lease of life and has introduced soundness in the system. With the establishment of AMCON the ratio of non-performing loans to total credit of the banking sector has reduced to 12% as at June 2017.

For the aim of AMCON to be achieved the CBN and commercial banks agreed to finance the project with each bank contributing up to 0.3% of its total financial assets as of the date of audited financial statement in a sinking fund.

Customers' Protection

In order to give customers improved protection and to increase the public confidence in the banking system, the central bank of Nigeria introduced the consumer and financial protection division which will provide a medium through which consumers can be seek redress. More than 600 consumer complaints were received in the first three months of its establishment, which is an evidence of the absence of complaints mechanism resolution by the banks. The CBN has also directed all banks to establish customer help desks at their branch's and head offices [11].

Micro Finance Banking

The success achieved by the microfinance banks in growing the economy cannot be over-emphasized given the result it has achieved in providing and increasing people access to financial services. There is a high level of exclusion in financial services given the data as at 31st January, 2005. The number of commercial bank branches was 5603 and 997 microfinance banks which gave the bank branches to 6600, brings to the bank branch ratio to total population as 25,000 people per bank branch. These further ads to the proof of 2010 enhancing financial innovation and access (EFInA) survey, which observed that 43.6% of Nigeria's population is still financially excluded, compared to South Africa, Botswana and Kenya with 25%, 35% and 33% respectively.

Empirical Review

The financial system has played a significant role in shaping development of countries. Consequently, a considerable economic literature has been devoted to the study of the relationship between economic growth and the reform in banking sector.

Mogboyin, Asaohu and Ajilore [13] examined the responses of flow of credit from the commercial bank to other sectors in response to reforms and consolidation programmes in the Nigerian banking sector. The study utilized cross-sectional data from 89 pre-consolidation banks and 25 post-consolidation banks to ascertain the credit performance based using panel data egression. Their findings show that banking reform induced changes in bank structure in terms of size and capitalization has on positive influence bank lending and performance. However, Somoye [14] examined impact of banking sector reform on economic growth of Nigeria. The work analyzed the data obtained from published audited accounts of twenty (20) out of twenty-five (25) banks. The analysis revealed that the consolidation programme has significantly and also contributed to the growth of the real sector. The study concluded that the` banking sector is becoming competitive and market forces are creating an atmosphere where many banks simply cannot afford to have weak balance sheet and inadequate corporate government. The study further posited that consolidation of banks may not necessarily be a sufficient tool for financial stability for sustainable economic growth, agreeing with the study of Magginson [15]. He recommended that bank consolidation in the financial market must be market driven to allow for efficiency in the sector. Also the study recommended that researcher should begin to develop a new framework for financial market stability as opposed to banking consolidation policy.

Ajayi and Kolapo [16] studied the effects of banking sector reforms on economic growth of Nigeria over the period 1986-2010. Their study adopted the multiple regression analysis of Ordinary Least Square (OLS) and descriptive analysis in establishing the relationship between Gross Domestic Products (proxy for economic growth), interest rate, exchange rate, cash reserve ratio, total asset and loan and advances. Their study however revealed that total asset, cash reserve ratio and interest rate have a significant impact on Gross Domestic Product while exchange rate and loans and advances have no significant impact on Gross Domestic Product.

RESEARCH METHODOLOGY

This study employed econometric analysis to determine the relationship between the independent and the dependent variables and to analyse the influence of the independent variables on the dependent variable. Time series data for the period 1991-2016 were sourced from various editions of Central Bank of Nigeria statistical bulletin and National Bureau of Statistics. Ordinary Least Square (OLS) technique was used in this study. The F-statistics and t-statistics are the instruments of test in the OLS and are used to test the significance of the regression and significance of the variables. To test the absence or presence of auto correlation among the independent variables the Durbin Watson test was used. To test the percentage variation of the independent and dependent variables the adjusted R-square was used.

Model Specification

The model in its mathematical form is stated as follows:

$$GDPGR = f\,(BCB, CMPS, CRR, ROE, NTEX)$$

The expression above can be expressed explicitly as:

$$GDPGR = \beta_0 + \beta_1\ BCB + \beta_2\ CMPS + \beta_3\ CRR + \beta_4\ ROE + \beta_5\ NTEX + U$$

Where:

GDPGR	=	Gross Domestic Product growth rate
BCB	=	Bank capital base
CMPS	=	Credit mobilized to the private sector
CRR	=	Cash reserve ratio
ROE	=	Return on equity
NTEX	=	Network expansion exercise

A priori, $\beta_1>0$, $\beta_2>0$, $\beta_3<0$, $\beta_4>0$, $\beta_5>0$.

β_0 = Intercept of regression
β_1 - β_5 = Coefficients of the independent variable
U = error term

PRESENTATION OF DATA

The annual time series data of the variables used in his study is presented in the Table 1 to enable we appreciate how the variables have performed during the period of the study.

Table-1: Pre and Post Consolidation, Bank capital base (BCB), Credit mobilized to the private sector (CMPS), Cash reserve ratio (CRR), Return on equity (ROE) and Network expansion exercise (%) in Nigerian Banks from 1991 to 2016

Year	ERA	BCB (%)	CMPS (%)	CRR (%)	ROE (%)	NTEX (%)
1990	Pre Reform	-	-	2.9	48.45	-
1991	Pre Reform	15.84	23.26	2.9	98.48	4.33
1992	Pre Reform	-12.36	40.55	4.4	32.35	12.46
1993	Pre Reform	17.27	118.70	6	92.52	3.65
1994	Pre Reform	23.25	12.83	5.7	-36.19	1.91
1995	Pre Reform	19.88	25.51	5.8	32.07	-1.46
1996	Pre Reform	33.69	32.55	7.5	15.45	1.65
1997	Pre Reform	102.35	32.53	7.8	0.37	0.00
1998	Pre Reform	45.10	11.31	8.3	61.84	-9.22
1999	Pre Reform	22.70	22.51	11.7	13.74	0.00
2000	Pre Reform	40.54	23.01	9.8	4.36	0.37
2001	Pre Reform	70.05	44.23	10.8	37.45	0.00
2002	Pre Reform	34.73	21.64	10.6	3.87	37.25
2003	Pre Reform	21.19	17.84	8.6	19.73	7.87
2004	Pre Reform	15.96	29.65	10	73.78	7.55
2005	Post Reform	21.08	29.31	8.6	19.11	-11.23
2006	Post Reform	-1.06	24.60	9.7	9.12	4.29
2007	Post Reform	-10.29	60.66	11.2	39.41	29.91
2008	Post Reform	37.91	88.62	3	26	17.90
2009	Post Reform	4.06	31.78	1.25	13.28	9.77
2010	Post Reform	13.76	11.04	1	11.11	6.86
2011	Post Reform	-11.82	4.95	8	2.91	-6.11
2012	Post Reform	-14.45	37.42	12	76.94	2.02
2013	Post Reform	11.27	7.53	12	39.89	1.35
2014	Post Reform	35.19	8.75	16.25	7.75	-2.00
2015	Post Reform	-16.57	9.02	24	19.5	-1.01
2016	Post Reform	8.75	12.89	22.5	15.3	1.83

Source: Central Bank of Nigeria Statistical Bulletin (2017).

RESULTS AND DISCUSSION

Table-2: Pre-reform era Ordinary Least Square Output (1991 to 2003).

Dependent Variable: GDPGR				
Method: Least Squares				
Date: 12/02/17 Time: 08:25				
Sample: 1991 2003				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.199049	2.957298	-1.081747	0.3152
BCB	0.027075	0.032821	0.824949	0.4366
CMPS	-0.017485	0.032915	-0.531218	0.6117
CRR	0.676047	0.354504	1.907021	0.0982
ROE	0.013341	0.026482	0.503786	0.6299
NTEX	0.277524	0.076273	3.638575	0.0083
R-squared	0.766700	Mean dependent var		3.968225
Adjusted R-squared	0.600058	S.D. dependent var		4.244372
S.E. of regression	2.684183	Akaike info criterion		5.116667
Sum squared resid	50.43386	Schwarz criterion		5.377413
Log likelihood	-27.25834	Hannan-Quinn criter.		5.063072
F-statistic	4.600866	Durbin-Watson stat		2.041822
Prob(F-statistic)	0.035284			

Source: E-view 10 output

In the pre-reform era, BCB, ROE and NTEX are all positively signed in conformity with a priori expectation. It is curious that CRR turned positive in this study. This runs contrary to theory. Contrary again to a priori expectation is CMPS with a negative sign. One would have expected a positive relationship between GDPGR and CMPS. This can be attributed to the loss of confidence in the banking system by the private sector and the unwillingness to lend to the private sector by banks during the pre-reform era. Excessive reliance on public sector deposit and foreign exchange racketeering is partly responsible for this ugly development. Of all the regressors, only NTEX is statistically significant.

Table-3: Post-reform Era Ordinary Least Square Output (2004 to 2016)

Dependent Variable: GDPGR				
Method: Least Squares				
Date: 12/02/17 Time: 10:37				
Sample: 2004 2016				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.406592	1.748017	5.381292	0.0010
BCB	0.036882	0.040215	0.917113	0.3896
CMPS	-0.045119	0.042854	-1.052844	0.3274
CRR	-0.343285	0.101254	-3.390344	0.0116
ROE	0.035122	0.029140	1.205302	0.2672
NTEX	0.078422	0.090035	0.871016	0.4126
R-squared	0.699049	Mean dependent var		6.078063
Adjusted R-squared	0.584084	S.D. dependent var		3.085991
S.E. of regression	2.216584	Akaike info criterion		4.733849
Sum squared resid	34.39271	Schwarz criterion		4.994595
Log likelihood	-24.77002	Hannan-Quinn criter.		4.680254
F-statistic	13.51920	Durbin-Watson stat		2.386314
Prob(F-statistic)	0.000929			

Source: E-view 10 output

In the post reform era, CRR is appropriately signed implying that increase in CRR leads to a fall in GDPGR. The CRR indicates that it is one of the strong determinants of the ability of the banks to lend. It turns out to be statistically significant and the only one among all the regressors to be so. As in the pre-reform era, BCB, ROE and NTEX are also positively and appropriately signed in line with theoretic expectation.

The F-statistics given its probability level is significant based on its probability level of 0.000929.

Table-4: Result of Unit Root Output (Augmented Dickey Fuller)

Variable	ADF t-statistics	Critical Value 5%			Order of Integration	Prob.
		1%	5%	10%		
D(GDPGR)	-5.357337	-3.737853	-2.991878	-2.635542	I(1)	0.0002
D(BCB)	-4.510813	-3.769597	-3.004861	-2.642242	I(1)	0.0019
D(CMPS)	-4.838682	-3.769597	-3.004861	-2.642242	I(1)	0.0009
D(CRR)	-4.148696	-3.737853	-2.991878	-2.635542	I(1)	0.0002
D(ROE)	-3.834812	-3.788030	-3.012363	-2.646119	I(1)	0.0090
D(NTEX)	-6.588955	-3.737853	-2.991878	-2.635542	I(1)	0.0000

Source: E-view-10 Output.

Table 4 above shows that all the variables in the model achieved stationarity at first difference in the order of one, 1(1). This is evidenced by their corresponding probability values which are less than 5% level of significance.

Table-5: Co-integration output of employed variables

Date: 12/01/17 Time: 20:50				
Sample (adjusted): 1993 2016				
Included observations: 24 after adjustments				
Trend assumption: Linear deterministic trend				
Series: GDPGR BCB CMPS CRR ROE NTEX				
Lags interval (in first differences): 1 to 1				
Unrestricted Co-integration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.960998	139.5128	95.75366	0.0000
At most 1	0.645212	61.65355	69.81889	0.1881
At most 2	0.540559	36.78394	47.85613	0.3578
At most 3	0.403306	18.11805	29.79707	0.5574
At most 4	0.162851	5.725647	15.49471	0.7277
At most 5	0.059003	1.459563	3.841466	0.2270
Trace test indicates 1 co-integrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: E-view 10 output

The value of the trace statistic in column one is greater than the corresponding value at 5% level of significance. The above result indicates the existence of at least one co-integration equation at 5% level of significant I the system. This suggests the existence of long-run relationship among the variables.

Test of Difference between Pre and Post reform Era

This is carried out using the T-test presented as follows:

Bank Capital Base Test of Difference Pre and Post Reform

Table-6: Paired Sample T-Test output of Bank Capital Base

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Reform BCB	33.401901357	13	28.135842240	7.8034786059
	Post Reform BCB	7.2152	13	17.88184	4.95953

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Pre Reform BCB & Post Reform BCB	13	.095	.758

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Reform BCB - Post Reform BCB	26.18670	31.87638	8.840918	6.923993	45.44940	2.962	12	.012

Source: SPSS 22 output

The above paired sample output based on the t-statistics value of 2.962 at degree of freedom (df) of 12 and a significance level of 0.012 which is less than the 0.05 significance level leads to the rejection of the null hypothesis of no difference. This means that there is a statistically significant relative difference between the bank capital base of the pre-reform era and post reform era in respective to economic growth as captured by the growth rate of the Gross Domestic product which shows that the nation has performed relatively differently in both eras which might be attributed to the reforms and other surrounding factors.

Credit Mobilized to the Private Sector Test of Difference Pre and Post Reform

Table-7: Paired Sample T-Test output of Credit Mobilized to the Private Sector

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Reform CMPS	32.805416322	13	27.576684223	7.648396075
	Post Reform CMPS	27.4017	13	24.24354	6.72395

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Reform CMPS & Post Reform CMPS	13	-.071	.817

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Reform CMPS - Post Reform CMPS	5.403762	37.994000	10.537639	-17.55578	28.363307	.513	12	.617

Source: SPSS 22 output

The above paired sample output based on the t-statistics value of -.513 at a degree of freedom (df) of 12 and a significance level of 0.617 which is greater than the 0.05 significance level leads to the non-rejection of the null hypothesis of no difference. This means that there is no relative difference between the credit mobilized to the private sector relatively between the pre and post reform era. Which shows that based on the mean values of the pre- reform and post- reform eras, there is no much difference as to the level of credit mobilized by the banking institutions.

Cash Reserve Ratio Test of Difference Pre and Post Reform

Table-8: Paired Sample T-Test output of Cash Reserve Ratio

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Reform CRR	7.685	13	2.6470	.7341
	Post Reform CRR	10.7308	13	7.10881	1.97163

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Reform CRR & Post Reform CRR	13	.440	.133

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Reform CRR - Post Reform CRR	-3.046	6.4031	1.77590	-6.91551	.82320	-1.715	12	.112

Source: SPSS 22 output

The above paired sample output based on the t-statistics value of -1.715 at a degree of freedom (df) of 12 and a significance level of 0.112 which is greater than the 0.05 significance level leads to the non-rejection of the null hypothesis of no difference. This means that there is no relative difference between the cash reserve ratio of banks as employed in the pre and post- reform eras in relative terms. This shows that activities relating to cash reserve ratio in the pre-reform era are not significantly different from activities in the post- reforms.

Return on Equity Test of Difference Pre and Post Reform

Table-9: Paired Sample T-Test output of Return on Equity

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Reform ROE	28.9262	13	37.46461	10.39081
	Post Reform ROE	27.2385	13	24.09962	6.68403

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Reform ROE & Post Reform ROE	13	.017	.957

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Reform ROE - Post Reform ROE	1.68769	44.20743	12.26093	-25.02659	28.40197	.138	12	.893

Source: SPSS 22 output

The above paired sample output based on the t-statistics value of 0.138 at a degree of freedom (df) of 12 and a significance level of 0.893 which is greater than the 0.05 significance level leads to the acceptance of the null hypothesis of no difference. This means that there is no relative difference between the pre-reform era and post reform era in respect of profitability as measured by return on equity which shows that pre and post returns on equity are similar.

Network Expansion Test of Difference Pre and Post Reform

Table-10: Paired Sample T-Test output of Network Expansion

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Reform NTEX	4.52367402104	13	11.048455590	3.0642902419
	Post Reform NTEX	4.7019	13	10.50152	2.91260

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Reform NTEX & Post Reform NTEX	13	-.206	.499

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Reform NTEX - Post Reform NTEX	-.1782581	16.74071	4.643038	-10.29456	9.938053	-.038	12	.970

Source: SPSS 22 output

The above paired sample output based on the t-statistics value of -0.038 at a degree of freedom (df) of 12 and a significance level of 0.970 which is greater than the 0.05 significance level leads to non-rejection of the null hypothesis of no difference. This means that there is no relative difference between the contribution of network expansion of banks in the pre-reform era and post reform eras.

Table-11: Parsimonious Error Correction Output

Parsimonious Error Correction Model Dependent Variable: GDPGR				
Method: Least Squares				
Date: 12/02/17 Time: 08:07				
Sample (adjusted): 1992 2016				
Included observations: 25 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.561894	1.263811	5.192147	0.0001
BCB	0.033762	0.017155	1.968004	0.0647
CMPS	-0.051145	0.023688	-2.159152	0.0446
CRR	-0.281700	0.088529	-3.182025	0.0052
ROE	0.044107	0.019824	2.224977	0.0391
NTEX	0.204177	0.045277	4.509493	0.0003
ECM(-1)	0.734921	0.162349	4.526795	0.0003
R-squared	0.753177	Mean dependent var		5.246151
Adjusted R-squared	0.670903	S.D. dependent var		3.691571
S.E. of regression	2.117744	Akaike info criterion		4.570075
Sum squared resid	80.72709	Schwarz criterion		4.911361
Log likelihood	-50.12594	Hannan-Quinn criter.		4.664733
F-statistic	9.154462	Durbin-Watson stat		1.916748
Prob(F-statistic)	0.000113			

Source: E-view 10 output

The above output shows a great prediction in movement of the regressand by the predictor variables of 67.09% as represented by the adjusted R^2 score of 0.67093, and shows that 67.09 % variations in the long and short-run can be traced to the regressors. The F-statistics at the probability level of 0.000113 shows that the model is statistically fit and it can be seen that credit mobilized to the private sector, cash reserve ratio, return on equity and network expansion as seen to be significantly relevant to the measure of Gross Domestic Product over the study period.

DISCUSSION OF FINDINGS

It can be seen generally that bank reforms activity as captured by the tests of difference and the long run parsimonious regression shows that changes emanating from the pre to the post reform eras in the form of employed variables are largely not significant in the short run but significant in the long run. Taking a look at each variable, we can deduce that:

Banks capital base (BCB) does not significantly influence Gross Domestic Product in the short run and not likely to do so in the long run. This shows that though, confidence in the banking sector may have been rekindled, recapitalization is yet to significantly impact on the growth rate of the GDP.

Credit mobilized to the private sector is not significantly different in its contribution towards the growth of the economy since after the reforms have been carried out. In the long run, the study suggests it can significantly influence the growth of the economy. It is curious however, how its contribution to the economy is negative, suggesting that less financial resources should be mobilized to the private sector if we want the economy to grow. Credit mobilized to the private sector even after the reform falls short of that which can effectively contribute positively to the growth of the economy.

Cash reserve ratio is seen to be characteristically negative and significantly so especially in the post reform era, pointing to the need to always adopt an expansionary monetary policy (in this case, a cut in CRR) if the nation desires to grow the economy.

Profitability as captured by return on equity (ROE) shows a positive and significant influence on Gross Domestic Product in the long run which shows that an increase in bank profitability continues to serve as an incentive for banks to continuously engage in meaningful activities which are capable of contributing positively to economic growth of the nation. In the short run however, there is no statistical significant difference in the contribution of ROE to economic growth in the pre and post reform eras.

Network expansion as seen from the point of bank branches shows a positive and significant influence on economic growth indicating that the more the bank branches and network expansion increases overtime (which could largely be linked to financial inclusion), the more the sector contributes positively and significantly to the growth of the economy. In the short run, the contribution of network expansion to economic growth in the post reform era is not significantly different from what it was before the reforms.

CONCLUSION

Though the reforms may have succeeded in restoring confidence in the financial sector, the effective contribution of the reforms to the growth of the economy in the short run is yet to be felt. Probably it is still early in the life of the reforms to have the desired effect on the economy. We may need to exercise patience and probably wait for the long run as the study reveals.

There is need to watch countries that carried out such reforms and fine tune our reform programme to achieve the desired goals in line with other countries of shared characteristics.

RECOMMENDATIONS

- There is the need to encourage financial inclusion since it is capable of growing the economy whether in the short or long run as network expansion of banks has shown in this study.
- Adequate provision of security is key if economic and financial activities are to thrive in the Nigerian economy. Banks will be more comfortable mobilizing credit to the private sector in an atmosphere of peace and security.
- Regulators of the financial sector should evaluate the effectiveness of the reform instruments in the attainment of the desired objectives and be prepared to fine tune them when necessary.

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