

# Financial Liberalization and Economic Growth: Implications for the Conduct of Monetary Policy in Emerging Economies

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## ABSTRACT

This study examined the impact of financial liberalization on the growth of Nigerian Economy. It surveys a stream of theoretical and empirical literatures on both financial liberalization and economic growth.

The data employed were gathered from various sources such as the Central Bank of Nigeria Statistical Bulletin, Economic and Financial Review, monthly and annual reports and statement of accounts for various years, and the publications of international monetary fund such as international monetary statistical Year Book and Bureau office of statistics.

The study made use of co-integration methods by Johansen (1988) and Johansen and Juselius (1988) and Johansen (1990) to estimate the relationship between financial liberalization and growth of Nigerian Economy.

The time series property of quarterly data employed were first to be investigated. The unit root result showed that none of the variables was stationary in level but became stationary after taken the first difference. This is followed by cointegration test which rejected the non-hypothesis of no cointegration and showed at most, one cointegrating vector. Results from error correction showed that speed of adjustment is approximately 2.9 percent, that is, when there is deviation from equilibrium, only 2.9 percent is corrected in one quarter as the variable moves towards restoring equilibrium. Results from this paper clearly showed that financial sector has impact on the growth of Nigerian Economy but not remarkable impact which might be due to underdeveloped financial market, inadequate financial instrument and poor monitoring of the activities of money market by the central bank. However, in line with the findings of this paper, we recommend that adequate monitoring by the central bank on the activities of commercial banks is required to boost production of real sector of Nigerian economy.

## 1. INTRODUCTION

Theory and evidence have long supported a significant role of a smooth functioning financial market for promoting high and sustained economic growth. A well – developed financial market enhances growth by promoting a more efficient allocation of resources, encouraging a faster accumulation of physical and human capital and technological progress, and reducing production costs relating to transaction, information and monitoring. (Darrat 2009).

The theoretical predictions are ambiguous on the role of financial market for promoting high and sustainable economic growth. Some works suggest that, by promoting cross-country risk-diversification, financial liberalization fosters specialization, efficiency in capital allocation and growth. (Acemoglu and Zilibotti, 1997 and Obstfeld, 1994). By generating international competition, it may also improve the functioning of domestic financial systems, with beneficial effects on savings and allocation (Klein and Olivei, 1999 and Levine, 2001). On the other hand, financial liberalization may be harmful for growth in the presence of distortions. It may trigger financial instability, as well as misallocation of capital (Eichengreen, 2001, for a survey), which are detrimental for macroeconomic performance. The empirical literature has not been able to resolve this theoretical controversy. Some studies (Grilli and Milesi-Ferretti, 1995, Kraay, 2000 and Rodrick, 1998) found that financial liberalization does not affect growth, others that the effect is positive (Levine, 2001, Bekaert et al., 2003 and Bonfiglioli and Mendicino, 2004), yet others that it is negative (Eichengreen and Leblang, 2003). Many authors show the effects to be heterogeneous across countries at different stages of institutional and economic development (Bekaert et al, 2003, Chinn and Ito, 2003 and Edwards, 2001) and countries with different macroeconomic frameworks (Arteta Eichengreen and Wyplosz, 2001). Perhaps surprisingly, very little evidence exists on the effects of financial globalization on the various sources of growth.

In this paper, I separately address the effects of international financial liberalization on capital accumulation and TFP levels and growth rates. Financial liberalization, i.e. the removal of restrictions on international financial transactions, may affect productivity both directly and indirectly. As a direct effect, it is expected to generate international competition for funds, thereby driving capital towards the most productive projects. Indirectly, it may foster financial development which in turn positively affects productivity (Beck et al., 2000).

The sign of the direct effect of financial liberalization on capital accumulation, through increased international competition, is ambiguous. (Acemoglu, 2005) suggest that the effect of competition may vary depending on the distance of a country to the world technology frontier. Moreover, the overall effect of financial openness on the

stock of capital may be ambiguous, as capital reallocations may translate into net inflows for some countries and outflows for others. (Alessandra Bonfiglioli, 2005)

We will not be pre occupied with the nature or the form of financial liberalization and economic growth nor will be bother about establishing a micro foundation for financial liberalization and economic growth in Nigeria. The remainder of the paper is arranged as follows:

Section 2 presents a brief theoretical construct for financial liberalization and economic growth. While section 3 discusses the data used in the analysis while section 4 discusses the results and section 5 concludes the paper.

## 2. CONCEPTUAL FRAMEWORK / LITERATURE REVIEW

Why would financial liberalization affect economic growth?

There are number of channels through which liberalization may impact growth. First, foreign investors, enjoying improved diversification benefits, will drive up local equity prices permanently thereby reducing the cost of capital. Both Bekaert and Harvey (2005) and (2009) Marshal evidence that the cost of capital goes down after major regulatory reforms Bekkert, Harvey and Lumsdaine (2000) show that a capital inflow leads to a permanent positive price effect. Moreover, Bekaert and Harvey (2009) and Henry (2009) indicate that investment increases. If the additional investment is efficient, economic growth should increase.

However, in the aftermath of the recent crises, some economist felt foreign capital had been wasted on frivolous consumption and wasteful investment, undermining the benefits of financial liberalization. Secondly, there is now a large literature on how improved financial markets and intermediation can improve growth (Bencivenga and Smith (1991) and financial liberalization may promote financial development.

Furthermore, foreign investors may also demand better corporate governance to protect their investments hereby reducing the wedge between the costs of external and internal financial capital and further increasing investment. Financial liberalization and some macro economic indicators in Nigeria, Real GDP Growth, Inflation and Growth of m1

### FINANCIAL LIBERALIZATION AND SOME MACROECONOMIC INDICATORS

Figure 2.1: Real deposit and Real Lending Rates

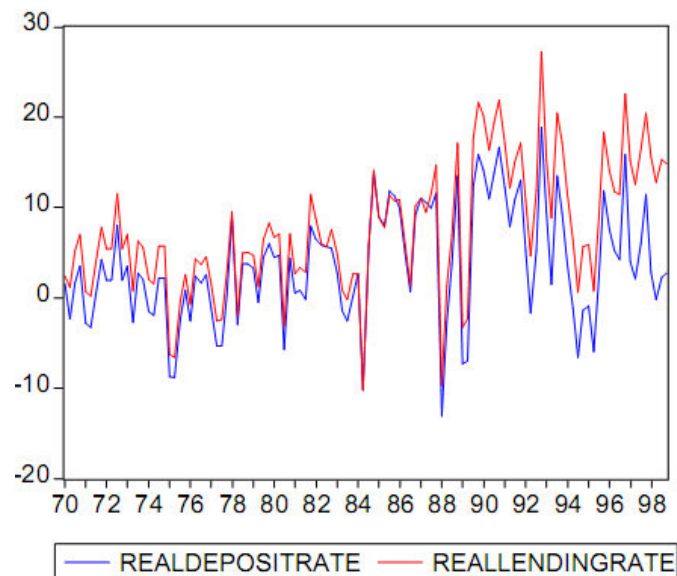


Figure 2.2: Deposit and lending Rates

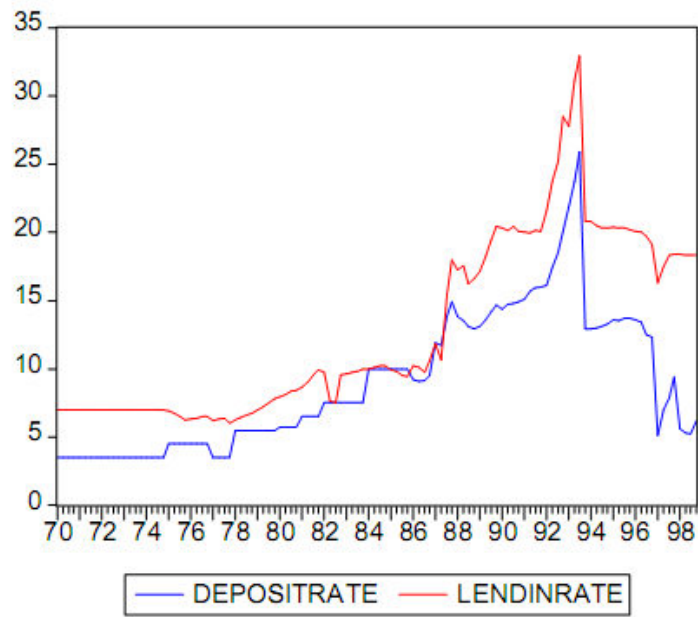


Figure 2.3: Inflation Rate

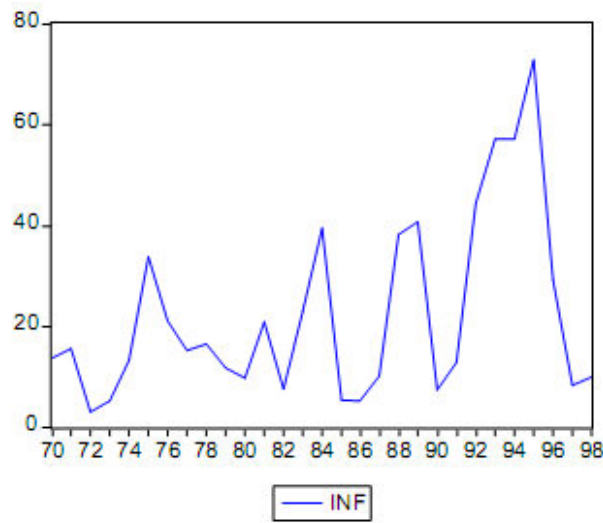


Figure 2.4: Official exchange rate in Nigeria

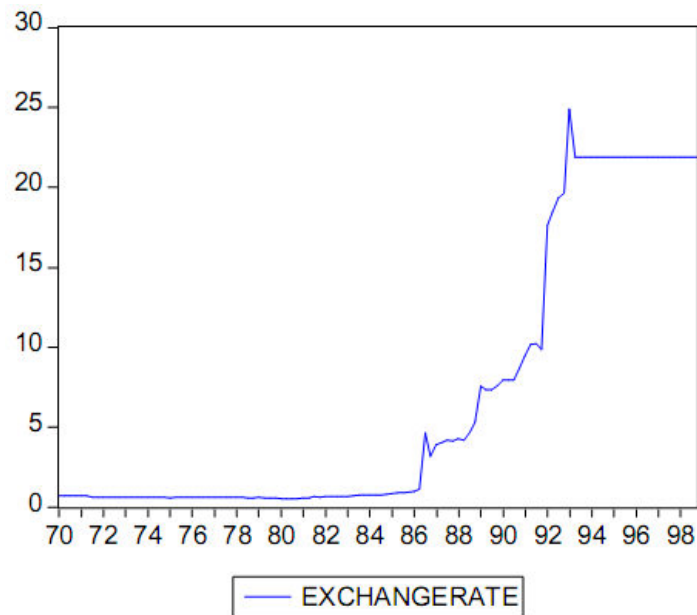
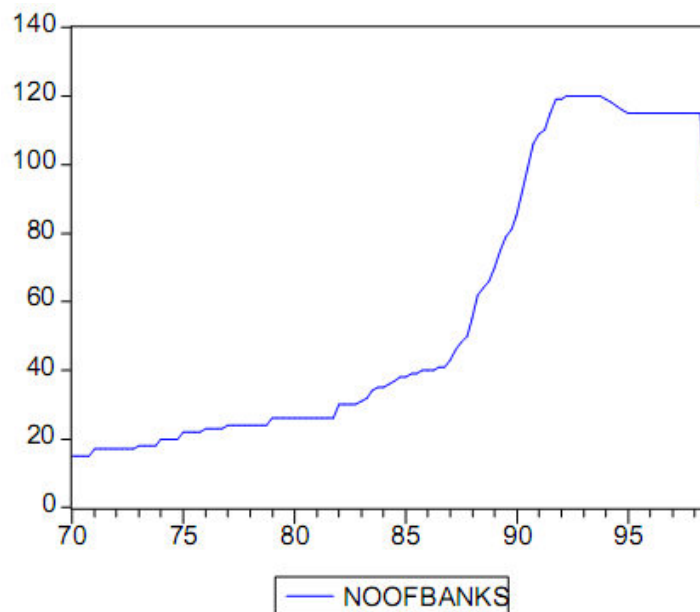


Figure 2.5: Number of Commercial and Merchant Bank



**Overview of Nigerian’s Financial Sector**

The history of the Nigeria banking system is replete with growth and burst cycles in the number of operating banks and their branches. Usually, growth spurt are experienced when the policy environment present strange business opportunities in the banking sector, or there is a sudden policy shift that makes it easy for ordinary business people to initiate a process that creates access to public funds in the name of bank deposits. In terms of Assets, Table 3.3 shows that the total asset of all the 89 banks operating in Nigeria in 2004 prior to the consolidation was ₦3,753.28 billion (US\$28.250billion) and rose to ₦6400.78billion(US\$49.88billion) indicating a growth rate of 70.54.16 per cent within one year after consolidation. The asset size of an average bank which was ₦42.172billion (US\$0.3174 billion) grew geometrically to ₦267.482billion (US\$2.0856billion) within a year after the consolidation exercise, a growth rate of 534.27 percent. This was an impressive performance.

However, an assessment of the level of capitalization of an average bank prior to the exercise indicates an equity base (Net worth) of N 7.71 billion (US\$0.06168billion) rising to N38.83billion (US\$0.31064billion) in 2006, indicating a growth rate of 404 percent. The leverage ratio measured in terms of equity to total asset also declined from 18.28 per cent 2004 to 14.52 percent in 2006 for an average bank. This ratio compares favourably with the CBN minimum level of 10 percent.

The post consolidation ratio is also better in terms of its distribution among the banks compared with the pre-consolidation ratio where more than 70 percent of the equity and assets were concentrated in (the largest five banks) less than 5 percent of the existing banks. However, the intermediation activities of an average bank improved significantly by about 1,690 percent from an average deposit base of N10.48billion (US\$0.08384) in 2004 to N188.48billion (US\$1.50784) in 2006

**Table 2.1: Pre-Post Consolidation Performance of the Nigerian Banks**

Macro Economic Indicators	N'm2004 (a)	N'm 2005 (b)	N'm 2006 (C)	% Changer increase (+) Decrease (-) or Difference (1)
Average Lending (₦m)	14,371.238	42,380,180	80,788,854	-462.15'n
Average Assets (₦m)	42,171.66	132,017.34	267,482.50	-534.27
Average Deposit (₦ 'm)	10,482.36	85,007.13	188,478.55	-1690.05
Average Net Word (₦ 'm)	7,708.73	19,708.88	38,831.31	-403.73
Return or Equity ('n)	35.28	12.72	11.12	-24.16(D)
Return on Assets('n)	8.37	3.01	2.07	- 6.30(D)
Total Bank loan & Advance (₦ m)	33.62	11.52	11.04	- 22.56(D)
GDP (Current Basic Press) (₦ m)	1,294,449.50	1,859,555.50	2,338,718.80	- 80.67
Rent GDP (Grown 'n)	11,411,070.00	14,572,240.00	18,067,830.00	- 58.34
Infactor Rate	6.5	7.06	7.17	- 0.67(D)
Exchange Rates N S	10.00	11.6	10.6	- 0.60(D)
Mr Lending Rate	132.86	129.00	128.3	- 3.43 (D)
Max Lending Rate	18.91	17.8	18.30	- 0.61 (D)
Max Lending Rate	20.42	19.50	28.70	- 8.28 (D)
MRR MPR	12.80	13.0	10.00	- 2 . 80 (D)
Credit to the private Sector (₦m)	311,646.8	442,008.9	525,482.0	- 68.87 'n
Back Market capitalistion (₦m)	662,712,600	1,212,21,545	2,142,745,733	-223.82'n
Back marker capitalistion NSE capitalization ('n)	34.41	41.80	41.84	- 7.43 (D)
Total marker cap. NSE market cap. (total)	1,925,937,530	2,900,062,072	5,120,943,320	- 165.89'n
Back Mkr Cap. GDP	5.80	8.32	11.86	- 6.06(D)
NSE Mkr Cap GDP	5.7	11.8	28.34	- 1.,22 (D)
Credit to private sector growd rate ('n)	26.6	30.8	27.82	- 0.18 (D)
Credit to private sector GDP	2.73	3.03	2.91	- 0.18 (D)
Average loan Deposit Ratio ('n)	72.8	76.7	96.8	- 24(D)
Credit to private Sector total loan ('n)	24.08	23.77	22.47	- 1.,6 (D)
Loan Adv.	1,294,449.5	1,859,555.50	2,338,718.8	80.68 'n
Total Assets (₦m)	3,753,277.8	4,515,116,67	6,400,783.9	70.54'n
Total Deposit Liabilities (₦m)	1,661,482.1	2,036,089.9	1,826,275.60	- 9.92'n
Cap. Reserves	348,387.6	591,738.7	953,001.20	-173.55'n
Comm. Back Asset GDP('n)	32.89	30.98	35.43	- 2.54 (D)
Non financial private Sector Bank Credit GDP ('n)	2.73	3.03	2.91	- 0.18 (D)

**Sources:** Various audited Accounts of Consolidated banks as at 2006 Fimnancial Year, 2007

The profit efficiency/asset utilization has not been impressive. Although the banks have been able to double their gross earnings from their pre consolidation performance level, their profit and asset utilization efficiencies have declined since the conclusion of the consolidation. For instance, the industry return on equity declined from 35.28 percent in 2004 to 11.12 percent in 2006, while return on asset declined from 8.37 percent to 2.09 percent over the same period. The asset utilization ratio also declined; while an average bank was able to earn 34 kobo

for every N1.0 asset in 2004, this declined to 11kobo in 2006. Thus, while the consolidation has improved the structure of the Nigerian banking industry in terms of asset size, deposit base and capital adequacy, the profit efficiency has not been impressive. The banks will need to become more efficient in terms of their ability to generate enough return to justify the increase in the equity base as well as the resources put at their disposals by their stakeholders.

### **Banking Sector and Nigerian Economy**

Despite countervailing views, there is a preponderance of evidence that a developed financial system positively influences real economic activity. Nigeria's Financial System, especially the capital market component, like those of other developing countries in practical as sub-saharan Africa has overtime remained weak and a cause for concern to policymakers. However, the comprehensive financial sector reforms of the mid 1980s brought about fundamental changes as the capital market, along with the banking sector, is growing very fast and now positioned to play its traditional roles of providing resources for long term investment and growth of the economy.

We analyse the role of the commercial banking sector relative to the economy. This is to enable us appreciate whether the banking industry will assume any appreciable level importance in the aggregate economy as a result of consolidation. From Table 3.4, the assets of commercial banks which stood at 32.89 percent of the GDP in 2004 rose marginally to 35.43 percent in 2006. The degree of private sector credit has been suggested to be a better indicator of bank contribution to private investment. In 2004, commercial banks channeled 24.08 percent of their lending to the non-bank private sector, but this declined to 22.47 percent by 2006. Likewise, the value of commercial bank credit relative to the GDP which was 2.73 percent in 2004 rose marginally to 2.91 percent in 2006. There has not been any appreciable growth in terms of the growth in credit to the private sector because the commercial bank credit which has a growth rate of 26.6 percent between 2003 and 2004, grew marginally to 30.8 percent in 2005 and declined to 27.82 percent a year after the consolidation. This confirms the views of Craig and Hardee (2004). In terms of price stability, the level inflation increased from 10.0 percent in 2004- a pre-consolidation period to 12.0 percent, a post consolidation.

The analysis suggests that banking sector has not shown a serious response of being able to meet monetary policy expectation. The relative performance of the banking size in terms of asset size, private sector credit, relative to the economy have been very marginal such that it can be safely concluded that the consolidation exercise has not brought about any meaningful contribution with respect to some of these performance indicators.

### **MAJOR OBSTACLE TO THE GROWTH OF NIGERIAN FINANCIAL SECTOR DEVELOPMENT**

#### ***Judicial System***

A transparent and effective judicial system is essential for the smooth functioning of the financial system. Weak legal institutions that can not enforce contracts and protect properly rights endanger banking sector soundness. There is need for a judicial system Reform that encompasses a strict adherence to the role of law. The current legal system that condones protected litigation undermines mercantilism. It is also counter productive and a veritable source of speculation, which is capable of eroding public confidence in the financial system. Against this backdrop, the need for a judicial reform or the establishment of a special commercial court of law for the speedy adjudication of mercantile cases can not be over-emphasized.

#### ***Death of Skilled Manpower***

The financial sector has over the years suffered from lack of skilled manpower. Generally the significant increase in the number of banks and bank branches has not been matched with commensurate output of trained bankers from the nation's tertiary institutions.

Consequently, the system has been bedeviled with the worst case of human resources mismatch a case of putting square pegs in round holes. Hence, the need to ensure that qualified personnel with adequate years of experience are appointed to position of responsibility in the banking section can not be overstated. Professional training, particularly training in banking ethics will also go along way in stemming, significantly, financial distress arising from fraudulent practices and management incompetence which has given rise to banks' poor asset quality, high operating cost and diminishing profitability.

#### ***Technological Constraint***

The financial sector, in a globalize world is technologically driven. The inability of the sector to upgrade and acquire the latest information technology that would facilitate a smooth and efficient service delivery poses a threat to the development of the Nigerian financial system. As such, there is need for the sector to operate in line with recent developments in communication and information technology.

#### ***Policy Inconsistency***

Policy reversals have often undermined Nigeria's financial sector development. The guided – deregulation of 1993 after the period of deregulation beginning from 1986 is a clear case. Similarly, the “gentlemen” agreement on interest rate ceiling, which DMBS can charge their customers, undermines the policy of interest rate deregulation. Market forces should ideally drive the interest rate in liberalized financial system. (O. S. Nnana,



2004).

### 3. THE EMPIRICAL SURVEY

The literature on growth and developing accounting takes as starting point the Cobb Douglas specification for the aggregate production function.

$$Y = AK^\alpha (HL)^{1-\alpha}$$

Where y = aggregate real output  
 K = Capital Stock  
 L = Labour Force  
 A = Efficiency of factor of production (TFP)  
 H = A average human capital

The several contributions on development accounting (Caselli, 2005 for a survey and Hall and Jones (1999) have shown that a large share of the cross country variation in GDP per worker, Y/L is explained by differences in A. The works on growth accounting and Klenow and Reodriguez. Clare 1997 focusing on the following expression.

$$\frac{Y}{Y} = \frac{A}{A} + \alpha \frac{K}{K} + (1-\alpha) \left( \frac{H}{H} + \frac{L}{L} \right)$$

All studies on the impact of financial liberalization and banking crises on growth focused on y/y without assessing whether the effects are transmitted through factor accumulation or changes in productivity, or both to successfully examine the impact of growth of Nigerian Economy. The below growth regression is presented

$$dy_{it} = b_0 + b_1 y_{it-1} + b_2 Z_{it} + b_3 FLIB_{it} + b_4 BC_{it} + u_{it}$$

where

$dy_{it} = d\text{Log}(y_{it}) =$  growth of GDP

$y_{it-1}$  = the logarithm of lagged GDP

$Z_{it}$  is a vector of control variables

$FLIB_{it}$  and  $BC_{it}$  are indicators of financial liberalization which are the ratio of broad money demand to GDP, treasury bill rate.

Suppose the estimate for  $b_z$  is not significantly different from zero.

This may reflect the absence of an effect of financial liberalization on any source of growth as well as the presence of two countervailing effects on capital and IFP accumulation understanding what lies behind the effects on aggregate GDP growth may be crucial for policy purposes.

#### THE DATA

LRGDP = f (Lm2 GDP,

LRGDP = Log of Real GDP

LM2 GDP = Log of the ratio of Broad money to GDP

RTR = Real interest Rate

Log of Investment

Log of FDI

Log of Total Domestic Credit

Sources of Data

The data use in the estimation of impact of financial liberalization on the growth of Nigerian Economy include Real GDP, Real Interest rules, Investment, total Domestic Credit ratio of broad money to G.D.P. These data were from Central Bank of Nigeria Statistical Bulletin, Bureau Office of Statistics and from International Financial Statistics.

#### 4. EMPIRICAL RESULTS

**Table 4.1:**

**Unit root test (with intercept)**

Variables	ADF Test		Phillips Period Test	
	Level	1 <sup>st</sup> Difference	Level	1 <sup>st</sup> Difference
LGDP	-1.18401	-10.95159	-1.183351	-10.943900....
INV	-1.947526	-3706276	-1.837377	-10.22109.....
FPI	-2.375763	-8.724116	-2.221763	-8.713125....
RTR	-7.767457	-5.3666921	-7.953051	-29.56163...
IPR	-2829807	-6.519104	-2.379222	-6.486242...
DUM	-0.516365	-9.021237	-0.687661	-9.486242....

**Table 4.2:**

**Cointegration Test**

Johnsen Cointegration test results series

LGDP, INV, RIR, FDI BMD, DUM.

Exogenous series DUM

Warning Critical values assure no exogenous series,

Lays interval (in First differences) 1 to 2

**Unrestricted Cointegration Rank Test (Trace)**

Hypollisized	Eigenvalue	Trace Statistic	0.05 Critical value	Prob.....
None	0.426492	113.3636	95.75366	0.0018
At most 1	0.194912	28.35692	69.81889	0.503
At most 2	0.116737	14.70241	47.85613	0.7980
At most 3	0.081594	5.339673	24.79707	0.7990
At most 4	0.045122	52.20538	15.49471	0.7717
At most 5	0.002368	0.260812	3.841466	0.6096

Trace test indicates 1 Cointegration eqn (s) at the 0.05 level

Denotes rejection of the hypothesis at the 0.05 level

Mudckmnon Havgr Michelis (1999) P – values.

**Table 4.3:**

**Unrestricted Cointegration Rank Test (maximum Eigen value)**

Hypotesized No of CE(S)	Eigenvalve	Muti-tigen statistic	0.05 Critical Valve	Prob...
None	0.426492	61.15826	40.07757	0.0001
At most 1	0.194912	23.84846	33.87687	0.4667
At most 2	0.116737	13.65451	27.58434	0.8457
At most 3	0.081594	9.362732	21.13162	0.8021
At most 4	0.045722	5.078862	14.26460	0.7318
At most 5	0.002360	0.260812	3.841466	0.6096

Max – Eigenvalue test indicates 1 Cointegrating eqn(s)

at the 0.05 level denotes rejection of the hypothesis at

the 0.05 level Mackinnon – Haug – Michaels (1999) P – Values.



**Table 4.4:**

**Unrestricted Ols model**

Dependent variable D(LGDP)

Method: Least squares

Date 20/03/11 Time 21.43

Sample (adjusted) 1980 – 2009.

Included observations: log after adjustments.

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	-4.01E-03	0.009587	-0.004185	0.9967
D(LGDP)(-1)	0.473150	0.2780606	1.648278	0.0927
D(LGDP)(-2)	0.108281	0.101372	1.068147	0.2882
D(RMS(-1)	0.157581	0.114492	1.376354	0.1719
D(RMS(-2)	0.248167	0.117372	2.114360	0.371
D(INV)(-1)	0.005381	0.009927	0.542092	0.5890
D(INV(-2)	-0.007470	0.009342	-0.080012	0.9364
D(RR1)(-1)	-0.007761	0.006902	-1.111613	0.2691
D(RR1)(-2)	-0.008086	0.006269	-1.289760	0.2003
D(F DI)-1	0.009284	0.037302	0.248889	0.8040
D(FDI)-2	-.0005306	0.089109	-0.110098	0.9126
D(TDL)-1	-0.008330	0.006015	-1.384867	0.1693
D(TDL)-2	0.002761	0.006267	0.441184	0.6601
RESGDP(-1)	-0.649720	0.300497	-2.162153	0.0331
R Squared	0.17228	Menu dependent Var	0.020096	
Adjusted R-Square	0.057954	S. D. dependent Var	0.074158	
S.E. of Regression	0.07938	Akaine info criterion	-2.306602	
Sum Squared Residual	0.491638	Schwarz Criterion	-1.960924	
Loy likelihood	1391123	F – Statistic	1.520459	
Dubin – Watson Stat	2015175	Prob (F-statistic)	0.124130	

**Table 4.5:**

**Parsimonious model results**

Dependent Variable D(LGDP)

Method Least Squares

Date 20/03/11

Sample (adjusted) 1980 – 2009

Included Observation: log after adjustments.

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	0.053818	0.017271	3.116141	0.0024
D(LGDP)(-1)	0.318011	0.213564	1.455001	0.1488
D(LNS (-2)	0.255116	0.110762	2.303287	0.0233
D(INV)(-1)	0.007999	0.009334	0.856994	0.3935
D(CDE(-1)	0.007209	0.035229	0.204633	0.383
D(FDT)-1	0.007209	0.035229	0.204633	0.383
D(FDt)-1	-0.0082760	0.005065	-1.634124	0.1053
RESMGDPG-1	-6.498380	0.243755	2.044595	0.0435
K-Squared	0.187230	mean depeent var.	0.020087	
Adjusted Re-Squared	0.130900	S.D. dependent Var	0.074158	
S.E. of Regression	0.069134	Akalk infor criterion	-2.43983	
Sum Squared residual	0.482728	Schwarz Criterion	-2.237453	
Log likelihood	140.7066	F-Statistic	3.323778	
Durbin0Watson Stat	2.027988	Prob (f-statistic)	0.003166	

**Table 4.6:**  
**Parsimonious model results with Dummy**

Dependent Variable D (LGDP)  
 Method: Least Squares  
 Date 20/03/11  
 Sample (adjusted) 1980 – 2009  
 Included Observations log after adjustment

Variable	Co-efficient	Sed. Error	t-statistic	Prob.
C	0.063515	0.019758	3.214589	0.0018
D(LGDP)(-1)	0.271930	0.223254	1.218028	0.2261
D(LMS)(-2)	0.246413	0.111085	2.218230	0.0288
D(INV)(-1)	0.007897	0.009333	08461390.3995	
D(RIR)(-1)	-0.010631	0.035388	0.300413	0.0050
D(DE)(-1)	0.010631	0.035388	0.300413	0.7645
D(FDI)-1	-0.009105	0.005130	-1.774836	0.0790
RESGDP (-1)	-.0448337	0.248716	-1.802607	0.0745
DUM 1	-0.014127	0.013986	-1.010030	0.3149
R-Squared	0.1955438	Mean dependent Var		0.020086
Adjusted R-Square	0.131073	S.D. Dependent Var		0.074158
S.E. of regression	0.069127	Akaike in for Criterion	-2.426784	
Sumsquared residual	0.477854	Schwarz criterion	-2.2045563	
Loglikelihood	141.2597	F-statistic		3.036406
Durbin-Watson Stat.	2.043158	Prob (F-Statistic)	0.004257	

**Johnsen Cointegration test results**

T – The Upper part of Table 3.3 presents the Trace Statistic while the lower part shows the maximum Eigen values. To accept the null hypothesis, the Trace and maximum Eigen value statistic must be smaller than 5 per cent critical values reported for each. The results in Table 3.3 shows that the Trace statistics indicate that there is at most one cointegrating vector and this is also confirmed by the maximum Eigen-value.

**RESULTS INTERPRETATION**

**Results from Unit root**

In order to carry out any multi-variables cointegration analysis, stationary time series data are required. It is therefore, essential for us to formally test for stationarity of each series used in the study we employ. The ADF and the Philips – Perron (PP) tests in order to determine if a unit root exists.

Results from the ADF, PP tests shown in Table 2.1 reveals that the variables are not stationary in levels however became stationary when converted to first differences. These stationary findings are then used to formulate our cointegration tests since the levels of the variables exhibit unit roots our next task is to check whether these variables (in levels) shares one or more unit roots in which case, they may be considered cointegrated since the objective of this paper is to know whether financial liberalization stimulates or retards growth of an economy.

To achieve this, we first test for growth without incorporating financial liberalization indicator (dummy variable) and then re-test after incorporating financial liberalization indicator. Both the results with and without financial indicator clearly reject hypothesis of no cointegration and show that there is one cointegration among variables and that all the variables in the model are significant determinants of growth of Nigerian economy.

The coefficient of DGDP (-0.028731) shows that the speed of adjustment is approximately 2.9 per cent, that is, when there is deviation from equilibrium only 2.9 percent is corrected in one quarter as the variable moves towards restoring equilibrium. The low speed of adjustment may reflect the lack of sufficient banking services and low returns of financial assets which can allow economic agents to re-establish equilibrium levels of money holdings. It could also be attributed to the fewer alternatives to money in Nigeria.

**CONCLUDING REMARKS**

This paper examines the impact of financial liberalization on the growth of Nigerian economy. Also, given the results from our estimation, the financial liberalization has an impact on the growth of Nigerian Economy but not a remarkable impact which might be due to under-developed financial market, policy inconsistency, inadequate financial instruments and poor monitoring of the activities of money market by the central bank. Empirical analysis carried out by means of Johansen Multivariate cointegration analysis and constrained error correction models reveals that there is a stationary long-run relationship between Gross Domestic Product and explanatory variables.

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