HOW DOMESTIC DEBT HURTS BANK PERFORMANCE: A Micro Analysis

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ABSTRACT

This study focuses on the interplay of domestic debt and bank performance and thus an attempt has been made to investigate the long-run relationship and direction of causality of the impact of domestic debt on bank performance using different variables herein the earnings per share, return on equity and return on capital employed. The banks used are the First Bank of Nigeria Plc, United Bank for Africa Plc being the two banks with huge penetration in the Nigerian banking industry. A general model for the micro analysis was developed with ample support of a macro model with the background of a simultaneous equation and further use of vector auto-regression estimation procedure. The result of the analysis shows that domestic debt impairs bank performance but the direction of impact on the two banks varies. While domestic debt impacts most negatively on the return on equity of First Bank Plc followed by its earnings per share, for United Bank for Africa domestic debt impacts most negatively on return on capital employed followed by its return on equity. It is believed that though domestic debt can be used as an instrument of economic stabilization, nonetheless, care must be taken to avoid a situation whereby it makes the business environment unfriendly.

Keywords: *Domestic Debt, Bank Performance, Return on Capital Employed, Earnings Per Share, ROE*

1.0 INTRODUCTION

In the argument against the accumulation of public debt i.e. foreign debt and domestic debt much criticism has been directed at the accumulation of external debt and less is being said against the piling up of domestic debt. This scenario is not unconnected with the wrong presumption that external debt is more harmful to the wellbeing of a country and businesses within the country than domestic debt. Nigeria's domestic debt is defined mainly as debt instruments by the federal   government and denominated in local currency. It consisted mainly of Nigerian Treasury Bills, Nigerian Treasury Certificates, Treasury Bonds, Federal Government Development Stocks, Ways and Means and recently considered are Contractor debts. Of these lots, only treasury bills, treasury certificates and development stocks are marketable and negotiable while treasury bonds, ways and means are not marketable but held by the Central bank solely according to Asogwa (2004).

Ogun (1994) adducing a reason for the country's debt stated that the resource boom experienced by Nigeria with reference to the agricultural export boom which predated the country's independence until 1962 and the oil export boom between 1973-1980 has been followed by serious economic problems reflective in higher foreign indebtedness in the post-oil boom years. The fall in oil revenue occasioned by the oil glut was the first noticeable period of pronounced trade deficit for Nigeria.

According to Falegan (1992) in the period of the oil glut, per capita income declined, per capita private consumption fell, export volume became stagnant and Nigeria's terms of trade declined. Consequently borrowing became an indispensable option for financing trade deficit and other capital projects. With reference to Alison (2001), three reasons have been advanced for the growing government domestic debt. The first is debt incurred from financing budget deficit. The second reason is debt arising from the implementation of monetary policy (the purchase and sale of treasury bills in the open market operations) and thirdly domestic debt incurred to develop the financial sector through the supply of tradable financial instruments so as to deepen financial markets.

In the study of Public Finance, because of the fact that public debt has significant impact on the distribution of services and goods, capital accumulation, economic growth, income, unemployment, stability and much more, several theories have been put forward by scholars on the desirability of public debt and otherwise. The view of the use of public debt as an effective instrument of economic policy especially in stabilization has been proved and recognized in both academic and policy circles as discovered by the Radcliffe Committee of 1957 in England and in this study, the workability of this in Nigeria is given some consideration.

The aim of this paper is to ascertain quantitatively the impact of domestic debt on banks especially in developing economies using Nigeria as an example.

2.0 LITERATURE REVIEW
In Nigeria, the history of the existing market for local or domestic debt is traceable to the financial reforms initiated by the colonial administration in 1958 that resulted in the establishment of the Central Bank of Nigeria and the creation of marketable public securities to finance possible fiscal deficits.

Gurley and Shaw (1973) provided a theoretical basis for creating public debt. According to them an economy can well achieve a healthy growth only if it has a sound financial system in which public debt plays an important and indispensable role. This is because the health of financial systems is dependent on the provision and soundness of public debt including currency supply. Hence public debt though in some cases constitute a problem to the managers of an economy, it is also a tool for economic management.

Rapu (2003) stated that factors responsible for increase in domestic debt include large public expenditure growth, high inflation rate and relatively narrow revenue base witnessed since the 1980s, high budget deficits and low output growth. Output growth declined showing a record of an average value of 5.9 percent in 1980-1989; 4.0 percent between 1990-1994 periods, and 2.8 percent in 1998-1999 periods. Public expenditure as a percentage of gross domestic product increased from 13 percent in the 1960-1969 period to 29.7 percent in the 1990-1994 periods.

In the period of the oil boom, there was a steady increase in public expenditure however, when the oil boom declined in the 1980s, government expenditure did not decline to be commensurate with declining revenue. Consequently, the fiscal operation of the government gave rise to serious deficits. The level of deficit increased persistently averaging 5.1 percent in 1980-1994 and 10.0 in 1990-1994. Due to the increasing government expenditure, deficits were financed in the periods through domestic sources of fund to an average of 79.2 percent between 1980 and year 2002 according to Rapu (2003)

Ola and Adeyemo (1998), while explaining the reasons for increasing public debt on the part of government came up with the following reasons:
   (i)   government borrows to finance emergencies such as natural disasters and economic depression.
   (ii)   government borrows to finance important capital projects such as water dams, agricultural development projects, river basin development projects.
   (iii) government borrows to finance current expenditure in anticipation of reasonable revenue collection.

The use of budget deficit as an instrument of stabilization also is a major reason for the huge domestic debt.

According to Obadan (2001), for a country like Nigeria aspiring to achieve enviable growth that has been limited by domestic resource gap, borrowing is required to fill the gap. This is premised on the fact that if economic growth is constrained by the lack of borrowed fund, the dual gap analysis stresses the additional role of domestic and external borrowing to complement available resources.In effect, the need to maintain or service the government deficit gap which reflects the excess of total recurrent and capital expenditure over revenue which is a major cause of balance of payments gaps is one reason for borrowing funds.

The investment, fiscal deficit and balance of payments gaps are evidences of low productivity, low tax effort, meagre foreign exchange earnings due to weak terms of trade, and import dependency. This was symbolically represented by Omoruyi (2004) thus:

$$M-X = I-S+G-T$$

Where
$M-X$ = current account gap
$I-S$ = private sector investment gap
$G-T$ = government deficit gap

3.0 METHODOLOGY
This study analyses quantitatively the long-run equilibrium relationship and impact of domestic debt on banking sector performance as it relates to variables such as return on capital employed, return on equity and earnings per share. Consequently, a micro-approach was used with each approach highlighting three variables within the

framework of simultaneous equations. The variables for the microanalysis the variables are the return capital employed, return on equity and earnings per share.

Smirlock (1985) emphasised that the use of return on capital employed provides a greater evidence of the concentration-probability relationship in banks while other empirical studies posits that return on equity is more dependable in measuring the changes in bank performance over time because banks income and expense component are more closely related to assets.

The general model of the micro-approach is expressed as:

BPM= f(Debt)..3.2

BPM= ROE, ROCE, EPS, ...3.9

i = FBN, UBA.

Where i are the individual observations and FDB is foreign debts while DDB is domestic debt and TDB is the total debt.

Though the emphasis here is on a micro-analysis of the impact of domestic debt on two selected banks the industry data of performance with reference to the total bank deposit, total bank branches and total bank lending can be explored and for which a macro-model to ease further analysis was developed thus:

BPM=TBB, TBL, TBD

Debt=TBD, FDB, DDB

> Where
> BPM is Bank Performance
> TBB is Total Bank Branches
> TBL is Total Bank Lending
> . TBD is Total Bank Deposit

Hence,

$BPM = a_1 + a_2 TDB + a_3 FDB + a_4 DDB$ 3.5

$TDB = b_1 + b_2 FDB - b_3 DDB + b_4 BPM$ 3.6

$FDB = c_1 + c_2 TDB + c_3 DDB + c_4 BPM$ 3.7

$DDB = d_1 + d_2 TDB + d_3 FDB + d_4 BPM$ 3.8

TDB is the total debt while DDB is domestic debt and FDB is the foreign debt

A priori expectations

The a priori expectation in this study is that domestic debt will depress the performance of the banking sector and this has to be validated empirically though what is not known is the magnitude of the impact of the domestic debt in general on the industry and specifically on the chosen banks used for this study.

Estimation Technique

In this study, a stationarity test using the unit root approach was first conducted to confirm whether a long run equilibrium relationship exists among the variables to justify the use of co-integration technique however the result showed that all the variables are integrated of different order. The implication of this is that the necessary condition for the use of co-integration has not been fulfilled hence the Vector Auto regression technique (VAR) was found to be a better alternative and thus used.

One advantage of VAR over co-integration is that it assumes all variables are endogenous and analyze a simultaneity relationship among the variables in such a way that the direction of causality and exogeneity is clearly shown by the result. The underlying basis for the micro-approach also used is in tandem with the theory of concentration-profitability relationship in banking as was used by Smirlock (1985) as well as the work of Matsunga (1985) from the understanding of the fact that banks income and expense features or components are related to assets. VAR estimation technique was also used with the return on equity, earning per share and return on capital employed as proxies.

Following the objectives of the study and being a time series analysis, the Vector Autoregressive (VAR) technique has been used to determine the nature of the relationship between Nigeria's domestic debt burden and the variables representing banking sector performance in a simultaneous manner. VAR shows considerable predictive ability and helps in defining evidence in terms of long run relationship between variables. Vector Autoregression is one of the most successful, flexible and easy to use technique for the analysis of multivariate time series. It is a natural extension of the univariate autoregressive model to dynamic multivariate time series. This VAR model has proven to be especially useful for explaining the dynamic behaviour of economic and financial time series and for forecasting. It usually provides superior forecasts to those from univariate time series models and elaborate theory based simultaneous equation models.

In structural analysis, certain assumptions about the causal structure of the data under investigation are imposed and the resulting causal impacts of unexpected shocks and innovations to specified variables on the variables in the model are summarized. These causal impacts are usually summarized with impulse response functions and forecast error variance decomposition. Herein in this study VAR is thus used to analyze the dynamic impact of random disturbances on the system of variables. Debt burden variables are the domestic debt (DDB), foreign debt (FDB) and the total debt values (TDB), while the variables representing banking sector performance (BPM) in this study are:

ROE = Return on Equity

ROCE = Return on Capital Employed

EPS= Earnings Per Share

The lag lengths are chosen using Akaike information criterion (AIC). ε_i is known as the impulse innovation or shocks in the language of VAR. The estimate of VAR has been used to determine or trace the effect of one standard deviation shock to one of the innovations on current and future values of the   endogenous variables. This analysis is called "Impulse response analysis". Also a different method of depicting the system dynamics is to decompose the variations in total debt burden variable into the component shocks to the banking sector performance variables in the VAR; this analysis is called "Variance decomposition".

The analysis centres on both a micro-analysis that looks at specific banks as a case study.

VAR ANALYSIS OF THE MICRO-MODEL

The major objective under this analysis is to determine the impact of domestic debt burden on banking performance on two selected banks. The selected banks are First Bank of Nigeria Plc and United Bank for Africa while the banking performance micro-indicators are the earnings per share (EPS). return on equity ROE and the return on capital employed (ROCE) the results of which are presented below

4.0 EMPIRICAL RESULTS

This section presents the results of the empirical analysis of the impact of domestic debt on banking sector performance. The first section reports the results of stationary test conducted on each variable of the model and the descriptive analysis. The second section presents the macro-analysis of the relationship between debt variables and banking sector performance variables. The third section presents the results of the relationship in a micro sense using selected banks, while the last section discusses the findings from the results.

The result of the stationarity test in form of the Philip Peron Unit root test is presented in Table 4.2. This test is necessary to avoid spurious regression and to confirm whether the variables do co-integrate or not, that is whether a long-run equilibrium relationship exists among the variables.

Variables in Table ...The banking sector performance micro-variables are Return on Equity for both United Bank For Africa (UBA) and First Bank (ROEU, ROEF); Return on Capital Employed for the two banks. (ROCEU AND ROCEF); Earning per share for the two banks (EPSU and EPSF). The third categories are the debt variables. These are Total Debt (TDB), External Debt (EDB) and Domestic Debt (DDB).

The result in Table 4.2 shows that all the variables are integrated of different order. While all the micro-variables (ROE, ROCE, EPS) for the two banks and Total Bank Branches (TBB) are integrated of order one, I(1), the macro variables (TBL, TBD) and the debt variables (TDB, EDB and DDB) are each integrated of order two denoted as I(2). The order of integration is the level at which such a variable is made stationary, while stationarity has to do with persistence shock.

Meanwhile, Table 4.2 revealed that all the variables are non-stationary at their own levels (using their raw data) but are made stationary at different orders. The implications of this result is that the lengths of sustained shock

are not the same among the variables. Variables integrated of order two will exhibit a more persistent shock than the I(1) variables. Simply put, any shock received by such variables will take a very long period before the effect disappears. These results do not favour the required necessary condition for co-integration, therefore a condition for the better alternative, the Vector Autoregression (VAR) is met. The result of the VAR are discussed in subsequent sections.

Table 4.2: Philip Peron Unit Root Test Summary

Series	PP Test Start	*1% C.V	5% C.V	Integration
D (TBL.2)	-10.2814	-3.6852	-2.9705	I (2)
D(TBD.2)	-13.9997	-3.6852	-2.9705	I (2)
DTBB	-5.1710	-3.6752	-2.9665	I (1)
DTDB(2)	-4.4761	-3.6852	-2.9705	I (2)
D(EDB.2)	-4.4977	-3.6852	-2.9705	I (2)
D(DDB.2)	-6.5338	-3.6852	-2.9705	I (2)
D(ROEF)	-5.4027	-3.6752	-2.9665	I (1)
D(ROEU)	-5.3503	-3.6752	-2.9665	I (1)
D(ROCEU)	-4.3919	-3.6661	-2.9627	I (1)
D(ROCEF)	-4.8849	-3.6661	-2.9627	I (1)
D(EPSU)	-5.9808	-3.6752	-2.9665	I (1)
D(FPSF)	-7.0529	-3.6752	-2.9665	I (1)

Source: Computed from raw data of the study

VAR ANALYSIS OF THE MICRO-MODEL

The major objective under this analysis is to determine the impact of debt burden on banking performance in two selected Banks. The selected banks are First Bank of Nigerian PLC and United Bank for Africa (UBA), while the banking performance micro-indicators are the Earning per share (EPS), Return on Equity (ROE) and the Return on Capital Employed (ROCE). The summary of the results of the VAR analysis for the two Banks are presented in Tables 4.6 and 4.7 (see the Appendix for the comprehensive result)

Table 4.6: Estimation Results for Second –order First Bank VAR System
Dependent Variable: EPS (Earning Per Share)

Variable	Coefficient	Std Error
EPS (-1)	0.2796	0.2285
EPS (-2)	-0.1574	0.2336
DDB (-1)	7.5305	12.0383
DDB (-2)	7.8059	12.0679
EDB (-1)	7.0741	12.0358
EDB (-2)	7.7833	12.0759
TDB (-1)	-7.0876	12.0333
TDB (-2)	-7.8349	12.0736
C	60.3253	22.8016

$R^2 = 0.85$, Adj. $R^2 = 0.79$, F – Test = 14.72
Source: Computed from raw data

Table 4.6a Dependent Variable: TDB (Total Debt Burden)

Variable	Coefficient	Std Error
EPS (-1)	-2.5478	1.1174
EPS (-2)	-2.7689	1.1425
DDB (-1)	35.053	58.8704
DDB (-2)	25.55	59.01
TDB (-1)	-18.97	58.8464
TDB (-2)	-38.136	59.04

R^2 0 0.98; Adj. R^2 = 0.97: F – STAT = 168 . 0017
Source: Computed from raw data

Table 4.6b Dependent Variable. ROCE (Return on Capital Employed)

Variable	Coefficient	Std Error
ROCE (-1)	0.4048	0.2024
ROCE (-2)	0.1040	-9.8508
DDB (-1)	-0.0008	0.0259
DDB (-2)	-0.0008	0.0259
EDB (-1)	-0.0008	0.0259
EDB (-2)	-0.00085	0.0259
TDB (-1)	0.0008	0.0259
TDB (-2)	0.0008	0.0259
C	3.85E-05	0.03792

R^2 = 0.46; Adj. R^2 = 0.25; F – stat. = 2.166 Table 4.6c Dependent Variable: ROE (Return on Equity)

Variable	Coefficient	Std Error
ROE (-1)	0.5480	0.204
ROE (-2)	0.236	0.1802
DDB (-1)	-0.0185	0.122
DDB (-2)	0.0213	0.122
EDB (-1)	-0.0152	0.122
TDB (-1)	0.0195	0.1222
TDB (-2)	-0.0207	0.1223
C	0.006	0.1825

R^2 = 0.94; Adj. R^2 = 0.91; f – stat = 37.82
Source: Computed from raw data

The results in table 4.6 is a summary of the VAR estimates of bank performance indicator using First Bank Nigeria PLC. Comparing the R^2, it is revealed that the R^2 for the Return on Equity (ROE) is highest (0.94) while that of the Earning Per Share is next (0.85) and Return on Capital Employed has the lowest (0.46). The interpretation of this is straight forward. Return on Equity is most affected by the debt burden in First Bank followed by Earning Per Share and the least affected is the Return on Capital Employed.

The results in Table 4.6 also portrays a negative impact of the debt variable on the bank performance indicators in the bank. The impact analysis is discussed in subsequent parts of this write-up.

Table 4.7: Estimation Results for Second – Order UBA VAR System.
Dependent Variable: Earning Per Share (EPS)

Variable	Coefficient	Std Error
EPSU (-1)	0.4401	0.2030
EPSU (-2)	0.2324	0.2428
DDB (-1)	0.9599	10.78
DDB (-2)	1.3961	10.80
EDB (-1)	1.1969	10.81
EDB (-2)	1.1386	10.79
TDB (-1)	-1.2089	10.81
TDB (-2)	-1.0890	10.78
C	7.1747	16.339

$R^2 = 0.84$; Adj. $R^2 = 0.78$; F – stat. = 13.52
Source: Computed from raw data

Table 4.7b Dependent Variable: ROCE (Return on Capital Employed)

Variable	Coefficient	Std Error
ROCE (-1)	-0.2575	0.146
ROCE (-2)	-0.2810	0.152
DDB (-1)	0.00015	0.00006
DDB (-2)	0.00026	0.00064
EDB (-1)	0.000020	0.00064
EDB (-2)	0.00016	0.000064
TDB (-1)	-0.0002	0.00064
TDB (-2)	-0.00018	0.00064
C	0.016	0.0025

$R^2 = 0.75$; Adj. $R^2 = 0.65$; F – stat. = 7.51

Table 4.7c Dependent Variable: ROE

Variable	Coefficient	Std Error
ROE (-1)	0.2622	0.2484
ROE (-2)	-0.2454	0.2867
DDB (-2)	-0.0441	0.127
DDB (-2)	-0.00768	0.1271
EDB (-1)	-0.0392	0.1273
EDB (-2)	-0.0152	0.1274
TDB (-1)	0.0398	0.1272
TDB (-2)	0.0147	0.1274
C	0.4212	0.2366

$R^2 = 0.84$; Adj. $R^2 = 0.78$; F – stat. = 14.12
Source: Computed from raw data

The result in Table 4.7 shows the VAR estimates for the three bank performance indicators for United Bank for Africa (UBA). The R^2 in the three variables are high but EPS and ROE all have 0.84 R^2 and 0.78 Adjusted R^2. This shows that the effect of debts on bank performance is equal on the both the Earning Per Share and Return on Equity. Also, a negative relationship exists between EPS and the total debt (TDB) while a negative relationship exist between Return on Equity (ROE and the domestic debt.

IMPACT ANALYSIS OF THE MICRO-MODEL

This section presents the analysis of the impact of debt variables on individual banks using the First Bank of Nigeria and the United Bank for African (UBA) as case study. The result of the variance decomposition of the VAR results presented in tables 4.6 and 4.7 are presented in Table 4.9

Table 4.9: Variance Decomposition for First Bank PLC

Variance Decomposition of EPS

Period	EPS	DDB	EDB	TDB
1	100	0.000	0.000	0.00
3	67.3	20.2	10.1	2.5
5	67.2	19.5	11.2	2.1
7	62.8	20.9	14.3	1.9
9	62.3	19.3	16.8	1.5
10	61.3	19.6	17.7	1.4

Table 4.9a Variance Decomposition of ROCE

Period	EPS	DDB	EDB	TDB
1	100	0.000	0.000	0.00
3	99.9	0.006	0.02	0.01
5	99.9	0.009	0.05	0.012
7	99.8	0.03	0.09	0.012
9	99.7	0.08	0.15	0.012
10	99.6	0.12	0.19	0.012

Source: Computed from raw data

Table 4.9 b Variance Decomposition of ROE

Period	ROE	DDB	EDB	TDB
1	100	0.00	0.00	0.00
3.	42.4	37.5	20.07	0.02
5	32.9	42.9	24.07	0.12
7	27.4	46.4	26.03	0.14
9	21.0	49.9	29.2	0.13
10	22.1	49.2	28.5	0.15

Source: Computed from raw data

First Bank Earning per Share (EPS)

Table 4.9 show that shocks received by Earning per Share in First Bank are decomposed as follows: Sustained impact from its own lag contributed about 67% in the first 3 period while domestic and external debts contributed 20% and 10% in the same period. The sustained impact's effect fades away gradually over time to about 67.2% in the 5th period, 62.8% in the 7th period and 61.3% in the 10th period. The negative impact of domestic debt gradually oscillates throughout the 10-period. The impact of external debt however increases from 11.2% in the 5th period to about 14.3% in the 7th period and 17.7% in the 10th period. But the impact of domestic debt in greater. The joint impact of the two debt variables is less and declines gradually over time.

First Bank Return on Capital Employed (ROCE)

The source of shock to Return on Capital Employed (ROCE) on First Bank is concentrated on the sustained impact from its own lag. 100% impact comes from the shock in the 1st period; the shock fades out but very slowly over the years. It reduces to 99.9 in the 3rd period to about 99.7 and 99.6 in the 9th and 10th period respectively. The impact of domestic debt is very negligible. About 0.006% in the third period which increases very slowly to 0.03 in 7th period, 0.08 in the 9th period and 0.12 in the 10th period.

However, the impact of external debt on ROCE in First Bank is also insignificant and also less than 0.5% throughout the 10 periods. Also the joint impact of debt on ROCE is less than 0.05% throughout the 10 periods. A good summary of this result is that when ROCE received a shock in First Bank it is sustained, and never wiped out.

First Bank Return on Equity (ROE)

According to Table 4.9 the source of shock to the Return on Equity on First Bank is distributed among the debt variables and its feedback from its own lags. Shocks received from feedback from its own lag was about 43% in the third period, it reduces to about 33% in the 5th period and further dies out to about 21% in the 9th period. The shocks received from domestic debt increases from about 38% in the 3rd period to about 43% in the 5th period and to about 50% in the 9th period.

In like manner the shock received from external debt increases from about 20% in the 3rd period to about 24% in 5th and about 29% in the 9th period. The joint impact of debt on ROE in First Bank is quite negligible, it is less than 0.5% throughout the 10 period. A major inference drawn from this result is that domestic debt problem impact more on the Return on Equity than the external debt problem in the First Bank.

Table 4.10: Variance Decomposition for UBA
Variance Decomposition of EPS

Period	EPS	DDB	EDB	TDS
1	100	0.000	0.000	0.00
3	81.9	8.7	9.3	0.07
5	66.7	23.3	9.7	0.25
7	43.7	47.0	9.2	0.19
9	39.2	44.8	15.8	0.21
10	42.9	40.2	16.7	0.22

Table 4.10a Variance Decomposition of ROCE

Period	ROCE	DDB	EDB	TDB
1	100	0.000	0.000	0.00
3	19.1	26.3	54.5	0.06
5	17.5	37.2	45.3	0.05
7	12.6	37.9	49.5	0.03
9	9.8	42.2	47.9	0.02
10	8.9	42.5	48.6	0.02

Table 4.10b Variance Decomposition of ROE

Period	ROE	DDB	EDB	TDB
1	100	0.000	0.000	0.00
3	76.4	15.6	7.33	0.65
5	57.3	32.1	9.96	0.67
7	57.7	29.6	11.90	0.80
9	52.6	32.6	14.12	0.69
10	49.9	35.1	14.32	0.67

Source: Computed from raw data

UBA Earning per Share (EPS)

From Table 4.10, it is shown that shocks to Earning per share received from feedback effect of its own lag was very severe in first 3 periods but it fades away gradually, reducing to about 66.7% in the 5th period about 44% in the 7th and 39.2% in the 9th period. However, shocks received from the problem of domestic debt in the economy was not so severe on UBA Earning per share in the first 3 periods. Its impact worsens as it increases to 23.3% in 5th period and about 47% in the 7th. It tries to die out gradually by reducing a little to about 45% in the 9th period and 40.2% in the 10th period.

However, the impact of external debt on UBA earning per share was not as grievous as that of domestic debt; but the impact increased throughout the 10th period. It increased from about 9.3% in the 3rd period to 9.7% in the 5th, 15.8% in the 9th and 16.7% in the 10th period. The combined impact of the debt variables is negligible; less than 0.5% throughout the 10 periods.

UBA Return on Capital Employed (ROCE)

A look at Table 4.10a suggests that the feed back effect on Return on Capital Employed in UBA is very minimal and reduces over the period. It reduces from 19.1% in the 3rd period to 17.5% in the 5th 9.8% in the 9th and 8.9% in the 10th period. On the other hand, the impact of domestic debt on UBA Return on Capital Employed is great. It increases from 26.3% in the 3rd period to 37.2% the 5th, 42.2% in the 9th and 42.5% in the 10th period.

Contrary to Earning per Share (EPS) observation, the impact of external debt is greater on the Return on capital employed in UBA. It was worse at the start, about 55% in the 3rd period but reduces gradually to about 45% in the 5th, about 50% in the 7th, 48% in the 9th and about 47% in the 10th period. It was also observed that throughout the 10 periods, the impact of external debt on the return on capital employed is more than the impact of domestic debt on the same variable. However, the combined impact of debt on the ROCE is quite insignificant.

UBA Return on Equity (ROE)

From Table 4.10, the decomposition of the variation or shocks in the Return on Equity in UBA is more evenly distributed. 764% of such shocks, comes from feed back from its own lag in the 3rd period. This reduces gradually to about 57.3% in the 5th, 58% in the 7th, 52.6% in the 9th and about 50% in the 10th period. The impact of domestic debt (DDB) was less severe at the beginning and about 15.6% in the 3rd period. This increased gradually to about 32% in the 5th, 29.6% in the 7th, 32.6 in the 9th and about 35% in the 10th period.

CONCLUSION AND RECOMMENDATIONS

Judging from this study, there is no doubt that domestic debt impairs the profitability of banks and as such other associated issues such as dividends paid to shareholders are undermined while retained earnings is also negatively impacted. The resultant effect of this is that Nigeria banks could be negatively affected as it concerns their global competitiveness.

In the micro analysis with particular reference to the chosen banks, domestic debt impacts most negatively on the return on equity of First Bank Plc followed by its effect on earnings per share while return on capital employed is least affected by domestic debt. However, in the case of United Bank for Africa, going by this analysis it is the return on capital employed that is most negatively affected by domestic debt and this is followed the return on equity while the earnings per share is least affected. It is thus recommended that the share of the domestic debt of the public debt should be less and in a situation where domestic debt must be the option, short term nature domestic debts is advisable.

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