

## **An Appraisal of the Impact of Bank Distress on Nigerian Economy, 1986-2010: An Empirical Investigation**

**Mayuku, Gbubemi John**

School of General Studies  
Delta State Polytechnic, Otefe-Oghara

**Ogude, Benedicta Adaeze**

School of General Studies  
Delta State Polytechnic, Otefe-Oghara

**Ibeh, Soni E.**

Delta State Polytechnic, Otefe-Oghara

**Ohwofasa, Bright Onoriode**

School of General Studies  
Delta State Polytechnic  
P.M.B. 03, Otefe-Oghara

### **Abstract**

*The study attempts to evaluate the impact of bank distress on the Nigerian economy as well as the determinants of bank distress in Nigeria from 1986-2010. Two linear regression models were estimated in which impact of interest rate, inflation rate and bank crises was negative on economic performance while that of exchange rate, domestic credit and past value of real GDP were positive. Similarly, the study found that inflation rate, exchange rate, broad money supply and corruption in the banking industry were potent sources of bank distress in Nigeria. The paper recommended that to ensure a sustained growth for the Nigerian economy, the various macroeconomic variables that constituted impediments to growth should be well managed while corruption at all levels in the industry must be dealt with*

**Key Word:** Bank Crises, Bank Failure

### **1. Introduction**

Until recently, research on banking crises was inspired mostly by the experiences of the 19th and early 20th centuries. In particular, the field was dominated by studies of the Great Depression, when numerous and catastrophic bank failures occurred around the world. Beginning in the 1990s, a resurgence of banking crises provided new impetus and new materials to researchers, and a rapidly growing literature is studying the causes and consequences of bank fragility in present-day economies. Prior to the deregulation of the economy in 1986, the financial sector had been the most highly regulated. The reasons for this are not far-fetched. First to finance development, funds are needed, and the stock-in-trade of the financial system is fund, so government needed to have a good grip over that sector especially its banking sub-sector. The financial system not only provides the intermediation that pools funds from savers and channel to investors, it also provides the payments system that facilitates trade and exchange. Given the key position of the financial system especially the banking subsector, the government rigidly controlled every aspect of their activities. For instance for the banking subsector, government regulated how much interest banks could charge on the loans that go to different sectors, and how much loans banks could give (i.e. what proportion of their loan – portfolio) to different sectors.

There were rigid regulations guiding entry into the banking system. In the end, the financial sector was repressed; especially the banking subsector which constituted the greatest proportion of the sector and so could neither generate enough savings at the ruling rate of interest, nor find enough investment for meaningful capital formation and development. Thus, at the onset of deregulation the financial sector was also deregulated; interest rates were freed and credit became free to move into whatever sector it desired. Rules concerning entry into the financial system were relaxed and there was a massive inflow of new players into the financial sector. By 1992 the number of banks in the Nigerian banking sector had risen from 56 to 120 in 1986 (Adegbite, 2005). However in spite of the increased number and variety of financial institutions the real economy showed no marked improvement. In fact by the beginning of the new millennium (2000-2002) all macro-economic indicators were declining (Adegbite, 2005). In Nigeria, the closures of banks wiped out customers deposits, curtailed bank lending and have often pushed the economy into recession. The collapse of banks and the subsequent loss of depositors funds, led to the erosion of public confidence in the banking sector. This has resulted in large amount of money being kept outside the banking industry and has further resulted in low economic growth, low capacity utilization, unemployment, and external debt overhang among other problems in Nigerian. Several studies have been conducted to proffer solutions to the problems (see for example, Nzotta and Okereke 2009; Oladejo and Oladipupo, 2011), the present study is intended to compliment the works of the earlier authors in that bank distress and subsequent merger and acquisition has become a reoccurring decimal in Nigeria.

Thus, the objective of the current studies therefore is to identify the causes of bank distress and its impact on the economy. Expectedly, the sequence of the paper is clear. Section one focuses on introduction. In section two, relevant literatures are reviewed. Section three focuses on the methodology and the specification of the various equations. These are followed by the discussion of the estimation technique in section four. The study is rounded up with concluding remarks in section five.

## **2.0 Review of Related Literature**

Financial sector distress has been described as a situation in which a sizeable proportion of financial institutions have liabilities exceeding the market value of their assets which may lead to runs and other portfolio shifts and eventual collapse of the financial system. Many people erroneously confuse bank distress with bank failure, which are technically distinct. Bank distress is the forerunner of bank failure. A bank in distress has the chance to regain health, whereas a failed bank loses every chance of life. Its final destination, as in the case of Nigeria, is the Nigerian Deposit Insurance Corporation (NDIC), where it is finally liquidated. Attempts have been made by different experts to define “distress” in banks and in other financial industry. The advanced Learners Dictionary defines distress as a state of great pain, discomfort or sorrow, while the Oxford dictionary defines distress as enormous pressure or strains. Distress in banks connotes an unhealthy situation, enormous pain in the operational activities of banks resulting from a combination of highly volatile factors among which are lack of continuity and inconsistent policies, management inefficiency, undercapitalization, unhealthy asset portfolios caused by poor administration, fraud and forgeries, poor loans and advances management, interference by board members and poor internal control (Aburime, 2009).

Bank distress is due to a chain of causation from non-panic-related, observable, exogenous adverse changes in the economic conditions of banks, to intrinsic weakening of bank condition, ultimately leading to bank failure. According to Calomiris and Wilson (2004), fundamental losses to bank borrowers cause losses to banks, which sometimes bankrupt the banks and subsequently weakened the banks to curtail the supplies of loans and deposits as part of a rebalancing of portfolios to limit default risk in a disciplined market. In sum, no indicator, or a set of indicators, is wholly reliable as an instrument of prediction; these factors only provide a clear signal for increasing probability of near-term bank failure. This study is however interested in perceived distress as the country of study had just witnessed actual distress.

Empirically, Baum, et.al., (2008) investigated the link between political patronage and bank performance in Ukraine. They found significant differences between politically affiliated and non-affiliated banks in terms of capital structure, size, and interest rate margins. Politically affiliated banks significantly increase their capital-to-asset ratios, *ceteris paribus*, relative to unaffiliated banks. They are also larger than their unaffiliated counterparts. They also tend to have interest rate margins that are lower than the margins of non-affiliated banks.

This is because they make loans for politically-motivated ends, that is, in return for affiliated politicians exerting influence on their behalf. In Nigeria, Babalola (2009) examined the perception of financial distress and customers' attitude toward Banking. Two hundred and one bank customers made up of 144 males and 57 females drawn from 27 banks in Lagos participated in the study. The result of the study showed that perceived financial distress and bank account customers has significant negative influence on attitude toward banking.

Nworji, et. al. (2011), examined issues, challenges and opportunities associated with corporate governance and bank failure in Nigeria and to see if a significant relationship exists between corporate governance and banks' failure. Relevant data were collected from the staff of eleven randomly selected commercial banks based in Lagos, using a well structured questionnaire. The result of the findings revealed that the new code of corporate governance for banks is adequate to curtail bank distress and that improper risk management, corruption of bank officials and over expansion of banks are the key issues why Banks fail and recommended that corporate governance should be used as a tool to help stem the tide of distress, as it entails conformity with prudential guidelines of the government as enforced by the NDIC. Obamuyi, (2011) employed descriptive statistics to analyze data from the secondary source and found that, although the recent consolidation exercise made the banks to be heavily capitalized in line with global financial system, it did not guarantee sound financial stability, as a result of implementation problem. In his study on bank failure in Nigeria: a consequence of capital inadequacy, lack of transparency and non-performing loans, (Adeyemi, 2011), employed simple percentages to describe the data presented and the conclusion drawn was that three factors have been the main reasons of the incessant bank failures: capital inadequacy, lack of transparency and non-performing loans. The paper recommended full disclosure of all financial transactions and the separation of the post of the chairman from that of the managing director for all the banks.

Oladejo and Oladipupo (2011), adopted largely an exploratory methodology and submitted that though reforms of banks become necessary, there is a limit to which banks should be regulated on the issue of capital adequacy. The paper argued that consolidation arising from the recapitalization of banks brought about lots of problems that may mar the aim of the reform, if not properly approached. Nzotta and Okereke (2009), scrutinized the relationship between financial deepening and economic development in Nigeria between 1986 and 2007. The study made use of secondary data sourced for a period of 22 years and employed two stages least squares analytical framework and found that financial deepening index is low in Nigeria over the years. The study also found that the nine explanatory variables employed were useful and had a statistical relationship with financial deepening. However four of the variables; lending rates, financial savings ratio, cheques/GDP ratio and the deposit money banks/GDP ratio had a significant relationship with financial deepening. Samuel, et.al., (2009), examined the impact of financial distress in the Nigerian banking industry as it affected job satisfaction, perceived stress and psychological well-being of employees and depositors. The authors administered questionnaires and the results showed that employees in healthy banks were more satisfied with their jobs than those in distressed banks; but the difference between their mean scores did not reach a significant level thus suggesting that employees in distressed banks equally enjoyed their jobs like their colleagues in healthy banks. Finally, the results also showed that employees in distressed banks did not experience higher stress level than those in healthy banks.

In the present study bank distress is made as a proxy for financial deepening which encompasses the increase in the stock of financial assets. From this perspective, financial deepening is thus measured by relating monetary and financial aggregates such as M1, M2 and M3 to the Gross Domestic Product (GDP). The logic here is that the more liquid money is available to an economy, the more opportunities exist for continued growth. The opposite will be the case (bank crises), if the banks are to meet up with their customers' demand. How does this come about? Deep and mature financial markets are indispensable for economic development (Olofin and Afangideh, 2008).

## **2.1 Monetary Operation and Economic Performance in Nigeria**

The performances of major macroeconomic indicators were not impressive for most of the years under review as either interest rate was too high to discourage investors or too high inflation reducing standard of living. Table 2.1a below shows the trend of monetary variables and as a ratio of real gross domestic product (GDP). It was discovered that broad money supply as ratio of GDP was 0.13 or 13 percent and domestic credit to the economy stood at 1.84 or 184 percent in 1986. In 1987, broad money supply as a ratio of GDP increased marginally to 0.16 or 16 percent while domestic credit stood at 2.16 or 216 percent.

Table 2.1b similarly shows average monetary variables as a ratio of GDP. Thus, between 1986-1990, broad money supply as a ratio of real GDP averaged 0.2 or 20 percent and domestic credit recorded 2.05 or 205 percent. A cursory look at table 2.2b revealed that between 1991-95, a marginal increase of 0.73 or 73 percent for broad money supply and 2.74 or 274 percent for domestic credit was recorded. The average ratio of broad money supply for the period, 1996-2000 increased to 1.95 or 195 percent while domestic credit declined to 1.51 or 151 percent. The ratio increased substantially from 2001 to 2010. Thus, for the period 2006-2010, broad money supply as a ratio of real GDP stood at 11.56 or 1156 percent and domestic credit recorded 6.68 or 668 percent.

**Table 2.1a: Monetary Variables as a Ratio of GDP, 1986-2010**

Year	Broad Money Supply (M2)	Domestic Credit (DCR)	GDP at 1990 price	M2 as Ratio of GDP	DCR as a Ratio of GDP
1986	27389.8	37880.5	205971.4	0.13	1.84
1987	33667.4	44140.0	204806.5	0.16	2.16
1988	45446.9	54813.1	219875.6	0.21	2.49
1989	47055.0	37004.2	236729.6	0.20	1.56
1990	68662.5	58209.3	267550.0	0.26	2.18
1991	87499.8	81705.0	265379.1	0.33	3.08
1992	129085.5	171071.0	271365.5	0.48	6.30
1993	198479.2	280697.6	274833.3	0.72	1.02
1994	266944.9	439113.8	275450.6	0.97	1.59
1995	318763.5	474361.4	281407.4	1.13	1.69
1996	370333.5	371079.0	293745.4	1.26	1.26
1997	429731.3	365870.6	302022.5	1.42	1.21
1998	525637.8	512490.3	310890.1	1.69	1.65
1999	699733.7	632010.1	312183.5	2.24	2.02
2000	1036080.0	472011.7	329178.7	3.15	1.43
2001	1315869.0	848992.8	356994.3	3.69	2.38
2002	1599495.0	1329401.0	433203.5	3.69	3.07
2003	1985192.0	1803937.0	477533.0	4.16	3.78
2004	2263588.0	2020173.0	527576.0	4.29	3.83
2005	2814846.1	2313388.0	561931.4	5.01	4.12
2006	4027901.7	714205.7	595821.6	6.76	1.20
2007	5832488.5	2710898.6	634251.1	9.20	4.27
2008	9208462.6	4993489.6	672202.6	13.70	7.43
2009	9615221.5	6388293.1	718977.3	13.37	8.89
2010	11154782.8	8758130.8	755525.7	14.76	11.59

Source: CBN Statistical Bulletin 2010 and Annual Report, Statement of Account (various issues)

**Table 2.1b: Average Monetary Variables as a Ratio of GDP, 1986-2010**

Year	M2	DCR	GDP	M2 as Ratio of GDP	DCR as Ratio of GDP
1986-1990	44444.3	46409.4	226986.6	0.20	2.05
1991-1995	200154.6	289389.8	273687.2	0.73	2.74
1996-2000	612303.3	470692.3	309604.0	1.95	1.51
2001-2005	1995798.0	1663178.4	471447.6	4.17	3.44
2006-2010	7967771.4	4713003.6	675355.7	11.56	6.68

Source: CBN Statistical Bulletin 2010 and Annual Report, Statement of Account (various issues)

## 2.2 Performance of the Banking Sector in the Era of Deregulation

A look at the Nigerian economy since the onset of SAP reforms in 1986, especially financial sectors reforms, really give cause for concern. It was observed that of the 120 banks that were then in existence in 1993 four of them had collapsed by 1994 and another one collapsed by 1995. Of the 115 banks left in the system by 1995, 60 (or more than half) were distressed (see table 2.2).

In terms of deposits the proportion of the distressed banks to the total banking industry was almost 30 percent in 1994, and to restructure the system the country needed some ₦23.4 billion naira, this figure almost doubled by 1997 to ₦42.8 billion. In 2001 there were still 9 distressed banks while some 26 banks collapsed between 1997 and 1998. This situation is worrisome and the ensuing confidence-crisis might lead to disintermediation, demonetization, and a collapses of the payments system which will in turn lead to a serious depression of the economy. The period 1994-2003 witnessed another round of bank distress/failure culminating in a good number of banks having their licenses withdrawn by the CBN and liquidated by the Nigeria Deposit Insurance Corporation (NDIC). Several financial institutions in Nigeria had become distressed, thus highlighting the precarious position of the financial sector. Between 1989 and 1996, the number of banks classified as distressed increased from 8 to 52. Another round of banking crises started at the wake of the political instability occasioned by the annulment of the 1993 Presidential election. Consequently, the CBN revoked the licenses of 5 banks, 4 in 1994 and 1 in 1995, (Adeyemi, 2011). Also, the CBN took over the management of 17 distressed banks in 1995 and one bank in 1996. This trend probably explains why the government through the CBN came up in July 2004 requesting that all banks beef-up their capital base from the mandatory minimum of ₦2 billion to another mandatory minimum of ₦25 billion, an increase of over 1000 percent. The banks were given till 2005 December to effect the change.

In the period, 1994- 2000, a total of 33 terminally distressed banks were liquidated (CBN, 2001). Also, the number of banks was reduced from 89 banks in 2004 to 24 groups of banks at the end of 2005 (Obamuyi, 2011). With 9 banks adjudged to be in grave situations in October, 2009, the number of banks were therefore set to reduce progressively. For instance, three banks (Bank PHB, Afribank and Spring Bank Plc) were nationalized by the government in the first quarter of 2011 and handed over to Asset Management Corporation of Nigeria (AMCON) (The Sun Newspaper, October 03,2011). Similarly, there was another merger and acquisition where Intercontinental Bank plc was been acquired by Access Bank Plc, a deal completed by March 2012 while Oceanic Bank Plc was also acquired by Ecobank Plc. Talk between Equitorial Trust Bank Limited and Sterling Bank Plc is also at the concluding stage in favour of Sterling Bank Plc.

**Table 2.2: Assets and Deposits of Distress Banks in Niger, 1990-2001**

Year	Total Number of Banks	Number of Banks in Distress	Deposits of Distressed Banks To Total Deposits in Banking Industry	Assets of Distressed Banks to Total Assets in Banking Industry	Amount Required for Recapitalization of Distressed Banks (₦bn)
1990	107	9	14.6	23.7	2.0
1991	119	8	4.4	16.4	2.4
1992	120	16	18.1	20.9	2.4
1993	120	33	19.2	18.6	23.6
1994	116	55	29.4	18.6	23.4
1995	115	60	14.1	19.8	30.5
1996	115	50	14.7	11.0	43.9
1997	115	47	9.0	7.6	42.8
1998	89	15	3.5	3.9	15.5
1999	90	13	1.6	1.5	15.3
2000	89	12	2.5	20.0	10.3
2001	90	9	2.0	3.0	12.1

**Source :** Alashi (2002) and (Adegbite, 2005).

In the section below, we shall empirically examined the impact of some of these variables on the banking sector crisis, proxy by financial deepening defined as the ratio of broad money supply to GDP.

### 3. Methodology

The research design plan that is adopted for this work is quantitative and empirical research and relies on historical time series data. The empirical research design here is in linear stochastic form between bank distress and economic performance in Nigeria for the period 1986-2010.

The data for the study were culled from CBN statistical bulletin and annual report statement of account of various issues. Effort was also made to reconcile the data with those of the *International Financial Statistic* of the *International Monetary Fund (IMF)* and the World Bank. The variables are measured in millions of naira unless otherwise stated.

### 3.1 Model Specification

In this study, two equations were specified. Whilst the first (equation 2) determined impact of bank crisis on economic performance using the GDP as a proxy, in the second equation (equation 3), determinants of bank crisis in Nigeria were investigated. The study adopted a simple linear regression model similar to that employed by Nzotta and Okereke (2009) in their study. Nzotta and Okereke (2009) employed nine variables in which financial deepening was made a depended variable as shown below:

$$\text{Log MS2/GDP}_t = C_0 + C_1\text{PLRA}_t + C_2\text{LogFS/GDP}_t + C_3\text{LogCHEQ/GDP}_t + C_4 \text{LogCHEQ/MS2}_t + C_5\text{LogINFLA}_t + C_6\text{LogPSC/GDP}_t + C_7\text{LogDMBA/GDP}_t + C_8\text{LogCOB/MS}_t + \text{DUM} + V \dots\dots\dots(1)$$

Where:

- MS2/GDP = log of financial deepening (ratio of money supply to GDP) at time t
- PLRA = Prime lending rates at time t
- FS/GDP = log financial savings/GDP ratio at time t
- CHEQ/GDP = log value of cheques cleared to GDP ratio at time t
- CHEQ/MS2= log value of cheques cleared to money supply at time t
- INFLA = log of inflation rate at time t
- PSC/GDP = log of private sector credit/GDP at time t
- DMBA/GDP = log of deposit money bank assets to GDP at time t
- COB/MS = log of currency outside banks to money supply at time t
- Dum = dummy
- V = error term

In order to suit the purpose of study the above equation is modified as presented in equation (2). Thus,  $\text{GDP} = f(\text{BKC}, \text{INF}, \text{INT}, \text{EXC}, \text{DMC}) \dots\dots\dots(2)$

In stochastic log form, equation (1) becomes:

$$\text{LogGDP} = \alpha_0 + \alpha_1\text{logBKC} + \alpha_2\text{logINF} + \alpha_3\text{logINT} + \alpha_4\text{EXC} + \alpha_5\text{DCR} + V \dots\dots(3)$$

where;

- GDP = Gross Domestic Product at 1990 constant price
- BKS= Bank crises proxy for financial deepening (i.e, M2/GDP)
- INF = Inflation Rate (a proxy for consumer price index)
- EXC = Nominal Exchange Rate (measured by the U.S. dollar)
- DCR = Domestic Money Credit
- V = Error term

$\alpha_0$  and  $\alpha_i$  = parameters to be estimated

similarly, we empirically investigated the determinants of bank crises in Nigeria, thus;

$$\text{BKC} = f(\text{M2}, \text{INF}, \text{EXC}, \text{POL}, \text{COR}) \dots\dots\dots(4)$$

$$\text{Log BKC} = \beta_0 + \beta_1\text{logM2} + \beta_2\text{logINF} + \beta_3\text{logEXC} + \beta_4\text{POL} + \beta_5\text{COR} + U \dots\dots(5)$$

where:

- POL = political Instability (dummy)
- COR = Corruption and Management Inefficient (dummy)
- U = Error term
- $B_0$  and  $\beta_i$  – coefficients to be estimated

### 3.2 Unit Root Test

In order to avoid estimating spurious regression, the stochastic properties of the series were tested. This we do by testing for unit root which involves testing the order of integration of the individual series under consideration. Several procedures for the test of order of integration have been developed in which the most popular one is the Augmented Dickey-Fuller (ADF).

The ADF test relies on rejecting a null hypothesis of unit root (the series are non-stationary) in favor of the alternative hypothesis of stationarity. The tests were conducted with or without a deterministic trend for each of the series. The general form of the ADF is estimated by the following regression.

$$\Delta y_t = a_0 + a_1 y_{t-1} + \sum_{i=1}^n a_i \Delta y_i + e_t \dots \dots \dots (6)$$

$$\Delta y_t = a_0 + a_1 y_{t-1} + \sum_{i=1}^n a_i \Delta y_i + \delta_t + e_t \dots \dots \dots (7)$$

Where  $y_t$  is a time series, it is a linear time trend,  $\Delta$  is the first difference operator,  $d_0$  is a constant,  $n$  is the optimum number of lags in dependent variable and  $e$  is the random error term.

**4.0 Presentation and Analysis of Results**

**4.1 Results of Stationarity Tests**

The results of stationarity test below reveal that none of the variables were stationary at level. The log of real GDP, log of bank crises (BKS) and the log of broad money supply (M2) were integrated at order two (i.e. I(2)). On the other hand, inflation rate (INF), log of interest rate (INT), exchange rate (EXC) and log of domestic credit (DCR) have integration of order one (i.e. I(1)). Stationarity was however achieved for all the variables at either 1 or 5 percent confidence levels.

**Table 4.1 Stationarity Test**

Variable	Order	Included in Test Equation	ADF Test	Mackinnon C.V.
LGDP	2	Intercept	-3.3437	5% = -3.0114
LBKS	2	Intercept	-3.4121	5% = -3.0114
INF	1	Trend & Intercept	-5.5468	1% = -4.4415
LINT	1	Trend & Intercept	-5.8248	1% = -4.4415
EXC	1	Intercept	-3.0228	5% = -3.0038
LDCR	1	Trend & Intercept	-3.7382	5% = -3.6330
LM2	2	Trend & Intercept	-6.0857	1% = -4.4415

Source: Computed from Eview 4.0

**4.2 Relationship between Economic Performance and Bank Crises**

$$LGDP = 11.424 - 0.145LBKS - 0.001INF - 0.105LINT + 0.004EXC + 0.069LDCR + 2.02GDP(-1)$$

(14.3)    (-1.6)            (-0.53)            (-1.33)            (4.5)

(1.1)                    (6.1)

$$R^2 = 0.98; F\text{-Stat} = 88.7; DW = 1.57$$

The results above show the relationship between real GDP and bank crises, inflation rate, interest rate, exchange rate, domestic credit, and a one year lag of real GDP. Autoregressive order of one (i.e. AR(1)) process was included in the estimate to correct for the presence of serial correlation. Consequently, the results show that serial correlation was therefore not a problem as could be seen in the DW=1.57. The  $R^2$  of 0.98 reveals that about 98 percent of the real GDP is explained by the combined effect of the explanatory variables while F-statistics of 88.7 shows that the entire equation is significant.

The results further show that EXC, DCR, and GDP (-1) have positive impact on real growth in Nigeria during the period under review. In particular, EXC and the past value of real GDP (i.e. GDP (-1), level of last year economic performance) are statistically significant in explaining real growth in Nigeria while domestic credit appeared insignificant. For example an appreciation in the value of the naira will positively affect real growth. That means that a one percent increase in the naira value increases real growth by 0.04 percent. As for the lag value of real GDP, it means that the performance of the Nigerian economy in the previous year was encouraging and this is responsible for its positive contribution to the current real growth. In the case of domestic credit, its positive impact on real growth is very little because its t-ratio of 1.1 which is less than 2 is insignificant.

On the other hand, BKS, INF and INT have negative impact on real growth. That means an increase or decrease in any of these variables decreases or increases real growth within the period of the study. The t-statistic of -1.6 of bank crises, though less than 2, is high enough for its negative impact to be felt in the level of economy performance. This means impact of incessant bank crises in the economy is deleterious on economy performance. The Nigerian economy may not have done well over the last two decades or so because of a number of crises witnessed in the banking sector. Similarly, impact of high inflation and interest rates on the economy is also negative even though their t-statistics are insignificant. The constant value of 11.4 shows the level of the economy performance at the beginning of 1986. In order words, in the absence of all the explanatory variables, real growth in the Nigerian economy was positive probably due to the presence of other sectors outside the banking industry.

#### **4.2 Determinants of Bank Crises**

$$\text{LBKS} = -10.5 + 0.002\text{INF} + 2.57\text{EXC} + 0.81\text{LM2} + 0.05\text{COR}$$

(-8.9) (1.2) (0.01) (8.8) (1.3)

$$R^2 = 0.99; \text{F-Stat} = 407.5; \text{DW} = 1.9$$

Here again, the above results are highly robust as  $R^2$  reveals that about 99 percent of bank crises are explained by INF, EXC, M2 and a dummy of corruption. The F-statistics is also robust showing that the entire model is significant while the DW= 1.9 shows absence of serial correlation. The results are unique in that the negative constant shows that in the absence of the independent variables, bank crises will be negative. All the independent variables are positive in explaining bank crises, however, only M2 is statistically significant in explaining the level of bank crises in Nigeria. The level of corruption in the banking sector captured by dummy variable is also a factor responsible for bank crises in Nigeria, all of which are embedded in the problem of corporate governance issue. On money supply, an increase in money supply lowers the interest rate and readily made money available in the banking sector for which siphoning it by corrupt officials is easily possible. The findings of this study give credence to the work of Idolor (2010), Obamuyi (2011) and Nzotta and Okereke (2009).

#### **5.0 Concluding Remarks**

The study attempts to evaluate the impact of bank distress on the Nigerian economy as well as the determinants of bank distress in Nigeria. In conducting the study, both descriptive and analytical approaches were adopted. Descriptively, it was observed that the growth of economic performance in Nigeria proxy by the real GDP has not be consistence, and in most cases less than double digit. On the other hand, monetary variables which include broad money supply, domestic credit, inflation rate, interest rate and exchange rate were in double digit for most of the periods. Broad money supply as a ratio of real GDP which is a proxy for bank distress shows that crises in the banking sector was minimal between 1986 up to about 1993.

The analytical aspect of the study was done through application of econometrics. Thus, two linear regression models were estimated in which impact of bank crises and some monetary variables on the economy performance proxy by the real GDP was investigated. Similarly, the determinants of bank crises in Nigeria were equally evaluated while a test of causality to ascertain the direction of GDP and bank crises was carried out. On the relationship between bank crises and economic performance, it was discovered that the impact of interest rate, inflation rate and bank crises was negative on economic performance while that of exchange rate, domestic credit and past value of real GDP were positive. However, exchange rate and past value of real GDP were highly statistically significant while bank crises were only barely significant.

Similarly, the study found that inflation rate, exchange rate, broad money supply and corruption in the banking industry were potent sources of bank distress in Nigeria as these variables were positive in explaining bank crises within the study period. Thus, the major conclusion reached in the study therefore is that the slow growth and performance of the Nigerian economy are mainly caused by the series of crises that have engulf the banking sector due mainly to the high level of corruption prevalence in the sector.

It is recommended therefore that to ensure a sustained growth for the Nigerian economy, the various macroeconomic variables that constituted impediments to growth should be well managed. These include acceptable interest rate (as high interest rate discourage borrowing and thus investment), single digit inflation rate and sound financial sector chief among them is the banking sector.



There should also be adequate and workable corporate governance practice in the banking sector. Corruption at all levels in the industry must be dealt with. The right type of manpower and banking ethnics should be the guiding principles of those in the industry. The regulating authorities must purge their selves of bad eggs. The practice whereby officials of regulating authorities connived with agent of the banking sector to defraud depositors' money is unacceptable. In addition, the value of the naira must be protected by the monetary authority because excessive depreciation of the naira has only contributed to corruption rather than yielded the desired results of increasing exports and improving the country terms of trade and balance of payments. Similarly, broad money supply also found as the root cause of crises in the banking sector must be adequately checked.

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Appendix 1: Regression Data

<b>Year</b>	<b>GDP</b>	<b>BKS</b>	<b>INF</b>	<b>INT</b>	<b>EXC</b>	<b>DCR</b>	<b>M2</b>	<b>COR</b>
<b>1986</b>	205971.4	0.133	5.4	9.5	2.02	37880.5	27389.8	0
<b>1987</b>	204806.5	0.1644	10.2	15.3	4.02	44140	33667.4	1
<b>1988</b>	219875.6	0.2067	56	12.1	5.54	54813.1	45446.9	0
<b>1989</b>	236729.6	0.1988	50.5	12.6	7.39	37004.2	47055	1
<b>1990</b>	267550	0.2566	7.5	20.5	8.04	58209.3	68662.5	0
<b>1991</b>	265379.1	0.3297	12.7	17.1	9.91	81705	87499.8	1
<b>1992</b>	271365.5	0.4757	44.8	22.3	17.3	171071	129085.5	0
<b>1993</b>	274833.3	0.7222	57.2	23.3	22.05	280697.6	198479.2	1
<b>1994</b>	275450.6	0.9691	57	15	21.87	439113.8	266944.9	0
<b>1995</b>	281407.4	1.1327	72.8	13.7	21.89	474361.4	318763.5	1
<b>1996</b>	293745.4	1.2607	29.3	13.2	21.89	371079	370333.5	0
<b>1997</b>	302022.5	1.4228	10.7	7.5	21.89	365870.6	429731.3	1
<b>1998</b>	310890.1	1.6908	7.9	10.5	21.89	512490.3	525637.8	0
<b>1999</b>	312183.5	2.2414	6.6	12.8	92.69	632010.1	699733.7	1
<b>2000</b>	329178.7	3.1475	6.9	10.3	102.11	472011.7	1036080	0
<b>2001</b>	356994.3	3.686	18.9	10.5	111.94	848992.8	1315869	1
<b>2002</b>	433203.5	3.6922	12.9	17	120.97	1329401	1599495	0
<b>2003</b>	477533	4.1572	14	13.1	129.36	1803937	1985192	1
<b>2004</b>	527576	4.2905	15	12.5	133.5	2020173	2263588	0
<b>2005</b>	561931.4	5.0092	17.8	10.4	132.15	2313388	2814846	1
<b>2006</b>	595821.6	6.7602	8.2	9.3	128.65	714205.7	4027902	0
<b>2007</b>	634251.1	9.1959	5.4	9.7	125.83	2688237	5809827	1
<b>2008</b>	672202.6	13.6989	11.6	11.9	118.57	3462331	8518431	0
<b>2009</b>	718977.3	13.3735	12.4	13.5	148.9	4038236	9575179	1
<b>2010</b>	755525.7	14.7643	13.3	13.5	150.2	4038236	9575179	0