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DETERMINANTS OF BANK DISTRESS AND ITS EFFECTS ON THE NIGERIAN ECONOMY: 1986-2013

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Abstract

The study attempts to evaluate the determinants of bank distress as well as impact of bank distress on the Nigerian economy from 1986-2013. Co-integration test revealed that all the macro-variables employed in the study were co-integrated. Two linear regression models were estimated with error correction model and results showed that broad money supply and inflation rate had negative effect impact on bank distress proxies by M2/GDP. Similarly, the study found out that bank crises and inflation were negatively affecting economic performance in Nigeria within the period under consideration. The research recommended that to ensure a sustained growth for the Nigerian economy, the various macroeconomic variables that constituted impediments to growth such broad money

Supply and inflation should be well managed while corruption at all levels in the industry must be dealt with.

Keywords: Bank, Bank Distress, Nigerian Economy, Consolidation, Recapitalization, Liquidation, Co-integration, Vector Error Correction.

1.0 INTRODUCTION

Banks play important roles in the economic development of any country. As an important component of the financial system, they channel resources from surplus economic units to deficit units. One of the principal functions of a bank includes lending (giving credits) to customers. Thus, a bank is defined as "a place of business that lends, issues, exchanges and takes care of money extends credits and provides ways of sending funds quickly from place to place (Webster's dictionary, 1995). One of the three categories of bank scope of operations includes the provision of credits to customers. Through credits, loans and advances banks assist in mobilizing funds at their disposal for economic development in a nation. Credits and advances business transactions are hither to being financed for and on behalf of individuals and/ or private enterprise, and of course, sometimes government agencies. In return, the banks

charge interest. The interests constitute major source of their income. Lending thus, is a vital function in banking operations owing to its direct effect on economic growth and business development of the nation. It is also a major source of revenue to banks. The principal objectives of banks in providing this service are to promote economic growth, profitability and liquidity to the economy (Solomon, 2012).

The banking industry in any economy in the world is the most important sector because of their ability to mobilize funds from the savings to the deficit sector of that economy. They mobilize the largest amount of fund because of their ability to accept deposits of any kind from the public, government and its agencies as well as create credit through granting of loans, overdraft and project financing which are all element of needs for economic performance in enhancing economic growth and development (Onoh, 2002).

Banking, by its nature, entails taking wide array of risks. Banking supervisors need to understand these risks and be satisfied that these banks are adequately measured and managed well. The key risks faced by banks are credit risk, interest risk, exchange rate risk, country and transfer risk, market risk, operational risk and legal risk (Basle, 1997). Due to the nature of risk involved in the banking business, they are often faced with the problem of distress (Solomon, 2012).

According to Oforegbunam (2011), the banking sector in Nigeria has passed through various evolutions starting from the advent of banking dated back to 1892 to the present day of consolidation. Distress in the history of the Nigerian banking industry is not an entirely new phenomenon and this has had far reaching consequences on the economy. Among which includes loss of confidence by depositors in the industry with corresponding retardation in the tempo of capital formation for investment. Bank distress is not an accident and does not occur in a day. It is rather organic as well as systemic.

CBN Decree 24 and the Banks and Other Financial Institutions Decree 25 both of 1991, which repealed the Banking Decree 1969 and all its amendments were thereafter, enacted to strengthen and extend the powers of CBN to cover new institutions in order to enhance the effectiveness of monetary policy, regulation and supervision of banks as well as non-banking financial institutions. By 1998, however, the number of deposit money banks in operation had whittled down to 89 with the monetary authorities liquidated 30 terminally distressed deposit money banks. By the end of March 2004, although there were still 89 deposit money banks in Nigeria, 14 were assessed as being only marginally

sound, 11 unsound and 2 not rendering any returns to the monetary authorities during the period. According to Soludo (2004), the problems with the unsound deposit money banks included persistent illiquidity, poor asset quality, weak corporate governance and gross insider abuses. The minimum capital requirement at the time was US\$7.53 million for existing banks and US\$15.06 million for new banks with most Nigerian banks having a capitalization of less than US\$10 million. The weak capital base of some of the ailing banks was evidenced by their overdrawn accounts with the Central Bank of Nigeria and high incidence of non-performing loans.

Although sufficiently capitalized, the financial crisis which began late in 2007 showed that Nigerian deposit money banks were not resilient enough to withstand liquidity shocks and continued to rely on significant liquidity support from the monetary authorities. According to Fadare (2011), "Between August and December 2009 for example, the Central Bank of Nigeria injected the equivalent of US\$4.1 billion into 10 Nigerian banks adjudged to be facing grave liquidity crisis, sacked 8 bank CEOs, introduced a plethora of regulations and took other direct actions deemed necessary in order to safeguard the Banking Sector from systemic collapse and to ensure the stability and soundness of Nigeria's banking sector."

The Central Bank of Nigeria has therefore been trying to implement the Basel II Capital Accord Initiative. It has also initiated series of reform programmes aimed at strengthening the banking industry as well as reduce the frequent cases of distress. However, the impact is yet to be felt in the industry. Banks are still, to a large extent, un-bothered. If credit administration and non-adherence to responsible credit risk management must be fought, then banks must be made to obey doctrines of sound credit management system as well as application of ethical credit monitoring and recovery tools.

1.2 Statement of the problem:

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. Put differently, distress in the financial system occurs when a fairly reasonable proportion of financial institutions in the system are unable to meet their obligations to their customers, their owners and the economy as a result of weaknesses in their financial, operational and managerial capabilities which render them either illiquid and or insolvent (CBN, 1997). In order to have a sound financial system, there is an abrupt need

for the macro and micro economic factors desires to be co-integrated for the purpose of economic growth and development. Banks are financial intermediaries that play important roles in resource mobilization and allocation; providing efficient payment and settlement services for both domestic and international trade as well as providing investment services. The banking institution is assumed to be constituted among others of integrity and honesty officials who are in charge for the day to day activities of the institution. The CBN is considered as the money market regulatory and supervisory body, also foreign exchange intermediary responsible for administering the exchange rate.

Unfortunately, Bank failures have always been associated with endogenous forces; lack of scruple, lack of knowledge and information, poor judgment, speculation, greed and barefaced fraud. The problem of distress in the banking sector including outright failure of banks has been observed in Nigeria as far back as 1930. Indeed, between 1930 and 1958 over 21 banks failed. Also between 1994 and 1998, about 31 bank's licenses were revoked for failure to meet the statutory minimum requirement for banking operations, (Michael et al 2009).

In Nigeria the bank failures of the Abacha era were attributed to inadequate capital base, fraudulent, self-serving and corrupt practices of the owners and managers, meddlesome interference of board members in the day to day running of the institutions and regulatory laxity. Other factors in bank distress are those over which individual banks have no control. These include the domestic policy context and global financial developments.

Poor management and ineffective supervision are relevant not only to the crisis of single institutions or to widespread crisis affecting a significant proportion of a banking system, as would appear obvious. They are also major elements in general financial crises that affect the whole system.

Poor management and ineffective supervision are relevant not only to the crisis of single institutions or to widespread crisis affecting a significant proportion of a banking system, as would appear obvious. They are also major elements in general financial crises that affect the whole system.

The recent removal of chief executives and executive directors of five banks by CBN has been attributed to the need to save the banks from collapse because their balance sheets had shrunk with subsequent cash flow problems. The Nigerian economy observed in the present dispensation has been

characterized by worsening economic fortunes in terms of reduced growth, increased unemployment, galloping inflation, high incidence of poverty, worsening balance of payment conditions, high debt burden and increasing unsustainable fiscal deficit, high rate of corruption.

Despite the various past guidelines, the banking industry has continued to witness various form of distress and liquidity problem, which has been caused by high investment in speculative businesses, mismanagement, high toxic assets, poor loan repayment supervision, fraud and corruption among bank staff, dynamic nature of the Nigerian economy etc.

This therefore raises the question of how effective CBN guidelines.

However, failure to address issues such as these will put the Nigerian economy at a grave risk the future. Also, as the echoes of distress that now pervade our landscape are the consequences of allowing a distorted macroeconomic environment which encourages trading in money as opposed to lending for production in agriculture and manufacturing to emerge.

The Banking sector occupies a vital position in any economy and must be subjected to continuous reforms for it to function efficiently. The modest achievements recorded so far have been largely due to greater collaboration and commitment of purpose among key stakeholders. Thus, the CBN in its efforts to develop a sound and vibrant banking system will continue to strive for the sustenance of reform policy.

1.3 Objectives of the study:

The study seeks to explore the determinants of bank distress in the Nigerian banking industry and its effects on the economy. However, it will be set to achieve the following specific objectives:

1. To determine the effect of money supply on bank distress in Nigeria.
2. To determine the relationship between corruption and bank distress in Nigeria.
3. To ascertain the influence of exchange rate on bank distress in Nigeria.

2.0 LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

Nzotta, (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 bank

Furthermore, CBN (2005) averred that “the distress could become systemic if sizeable numbers of banks are involved, resulting in banks runs as depositors lose confidence in the system and attempt to avoid capital loses in which case, the country is said to be experiencing banking crisis.

Umoh (1999) asserts that “a bank is distressed when it is technically insolvent implying that the bank’s liabilities exceed the assets”. The CBN/NDIC (1995) describes a distressed financial institution as “one with severe financial, operational and managerial weaknesses which have rendered it difficult for the institution to meet its obligations to its customers, owners and the economy as and when due. Without necessarily implying the degree or nature of the problem, a bank is said to be distressed when it is either illiquid and/or insolvent to the extent that its ability to discharge its obligations as at when is impaired. In more precise terms, illiquidity is a state of inability to meet payments obligations to customers as at when due, while insolvency is a situation in which the value of the firm’s liabilities is in excess of its assets’ value, i.e., negative net worth.

The CBN/NDIC (1995) describes banking system distress 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 some financial firms”.

Furthermore, depending on whether public confidence in the system has been eroded or not, financial system distress is classified into two, namely, generalized or systemic. If public confidence has not been adversely affected

by the incidence of distress, though widespread among the institutions, it is regarded as a generalized distress otherwise, it is systemic distress.

The CBN (2002) provides a working definition of systemic bank distress as "those situations where the solvency and/or liquidity of many or most banks have suffered shocks that have shaken public confidence. Ogubunka (2003) opines that bank distress has become a common lexicon in Nigeria given many bank failures in the period of 1994 through 2003.

Empirically, Baum, et.al. (2008) investigated the link between political patronage and bank performance in Ukraine. They found significant differences between politically affiliated and nonaffiliated 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.

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. 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 nonperforming 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 nonperforming 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. 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. It is useful for all stakeholders, that is, managers, depositors, borrowers and regulators in the financial sector to know what causes a bank failure in order to help prevent the failure.

The issue especially concerns managers and external regulators. This is because most managers are dismissed and regulators are blamed when banks fail. It is also very important for other stakeholders to understand the causes of bank failure, in order for them to help to avoid it. We should also note that the social costs of the failure of a bank can be higher than the costs incurred by the failed institution; the consumer can lose when an institution fails, even if there is no systemic impact and this is the reason why all the interested party should be at alert regarding issues of bank failure. In this section, we will examine and review some of the various theories which deal on the factors behind banking crisis and failures.

Hooks (1994), in his opinion pointed out that the deteriorating local economic conditions (e.g. inflation, interest rates, and exchange rates) cause bank failure.

Goodhart et al., (1998) notes the following situations, which could cause a bank failure:

- i. Too many stringent rules could cause banks to disregard the measures as they may be seen by the banking sector as superfluous.
- ii. Some dangers that banks are exposed to may be too difficult to be addressed by general laws.
- iii. A rigid system of rules could inhibit banks from selecting the most efficient means of achieving regulatory goals set for them and may serve as a disincentive for improvement.

3.0 METHODOLOGY

3.1 INTRODUCTION

The empirical research design here is in linear stochastic form between bank distress and economic performance in Nigeria for the period 1986-2013. The study makes use of time series data which are sourced from the National Bureau of Statistics through the publication of the Central Bank of Nigeria.

3.2 MODEL SPECIFICATION

The empirical research design here is in linear stochastic form between bank distress and economic performance in Nigeria for the period 1986-2013. In this study one equation was specified which is based on the determinants of bank crisis in Nigeria and its impact on bank crisis on the economy, where GDP is used as a proxy for bank distress and Domestic money credit is taking into consideration.

The data for the study were culled from Central Bank of Nigeria statistical bulletin and annual report statement of account of various issues. The study adopted a simple linear regression model.

$$BKC = (M2, INF, EXC, COR) \dots \dots \dots (1)$$

In Stochastic log form, equation (1) can be written as:

$$\ln BKC = \partial_0 + \partial_1 \ln M2 + \partial_2 \ln INF + \partial_3 \ln EXC + \partial_4 \ln COR + \epsilon_t \dots \dots \dots (2)$$

Where:

BKC = financial deepening as proxy for bank distress

M2 = Broad money supply

INF = Inflation Rate

EXC = Exchange Rate

COR = Corruption in the banking sector

$\partial_1 - \partial_4$ = Parameters to be estimated

t = white noise error term at time t.

N.B: Gross Domestic Product at 1990 constant price (GDP).

Unit Root Testing:

To avoid a spurious regression, the Augmented Dickey-Fuller test is conducted.

Co-integration Test and Vector Error Correction Model:

Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary series may be stationary. If such a stationary exists then, time series are said to be co integrated. The stationary linear combination is called the co-integrating equation and may be interpreted as a long-run equilibrium relationship between the variables.

4.0 EMPIRICAL RESULT

4.1 PRESENTATION OF DATA

The technique for the data analysis is OLS. This was used in estimating the regression result. This is subject to various tests. The model is estimated with E-views 3.0, the equation and the result are presented below.

(i) TEST FOR UNIT ROOT

This study commenced its empirical analysis by first testing the properties of the time series used for analysis. This is important because most macroeconomic time series exhibit non-stationary behavior in their level form, which often poses a serious problem to econometric analysis. According to (Johansen, 2011) It can lead to spurious result if appropriate measures are not taken. To guard against spurious result, this study took caution by checking properties of the variables via the Augmented Dickey-Fuller (ADF) test developed by Dickey and Fuller (1981). The DF Test is based on the following Equation

$$X_t = a + X_{t-1} + Ut \dots \dots \dots (5)$$

Under the null hypothesis of unit root, the coefficient of X_{t-1} will not be statistically different from zero (i.e. = 0). If there is no unit root, the series X_t is said to be stationary in levels or integrated of order zero (denoted as I(0)). If there is a unit root, but differencing the series once makes it stationary, then it is said to be integrated of order one (denoted as I(1))(Gujarati,2005).The result is presented in table 4.2 below.

Hypothesis

HO; $\delta = 0$ that the variables do not contain unit root

HO; $\delta \neq 0$ that the variables do contain unit root.

Table 4.1: Stationary Test Result

Variables	ADF Statistic Levels	1 st Difference	2 nd Difference	5%MacKin non Critical Values	Probabili ty Values	Order of Integratio n
BKC	-2.435406	-3.214824	-4.151003	-3.1483	0.0376	I(1)
GDP	-1.765689	-3.456086	-6.565768	-3.1801	0.0001	I(1)
INF	-2.243043	-2.990539	-3.378474	-3.1483	0.0516	I(2)
INT	-2.365292	-2.906284	-2.365292	-2.7349	0.0197	I((1)
EXC	-1.194270	-2.171898	-2.870237	-2.7557	0.0240	I(2)
DCR	-2.084954	-3.258810	-2.484020	-3.1801	0.0115	I(1)
M2	-1.543745	-3.580675	-7.148212	-3.1483	0.0050	I(1)

Source: E-views Output

As observed from the ADF test on Table 4.2, As observed from the ADF test on Table 4.2, all estimating variables were found to be I(1) and I(2) series, implying that these variables are stationary after 1st difference and 2nd difference. From the Augmented Dickey-Fuller Test in the table above, it shows that some of the determinants of bank distress such as interest rate, real gross Domestic Product, Financial Deepening, money supply and DCR were stationary at the first difference-I(1) while inflation, exchange rate were found stationary at levels I (2).

Conclusion

Since the computed tau statistics does exceed the 5 percent critical value in absolute term, we reject the null hypotheses that $\delta = 0$ and conclude that the Bank Distress (BKC) times series from 2000 to 2013 are stationary.

ii) TESTS FOR CO-INTEGRATION:

Following the findings in (i) above that all variables of interest are of I(1) and I(2) It therefore suggest test for co-integration among these variables since

they are stationary. This also shows that there is a long run relationship or equilibrium among the variables. Ensuring stationarity test is the examination of the long run (co-integration) relationship among the variables. The Johansen multivariate co-integration technique was adopted rather than the Engel-Granger techniques.

This was based on two reasons. First, the variables for analysis are I(1) series, which is a precondition for the adoption of the Johansen technique and secondly, the models are multi-variate models as specified in equation (2) and (3) above, consequently there is the possibility of having more than one co integrating vector in the model. This is against the Engel-granger technique which is only suitable for testing co-integration between two variables

Table 4.2: Unrestricted Co-integration Rank Results (Likelihood Ratio)

Eigen value	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.890747	109.7524	68.52	76.07	None **
0.625019	52.18603	47.21	54.46	At most 1 *
0.576946	26.68312	29.68	35.65	At most 2
0.152608	4.316501	15.41	20.04	At most 3
0.000427	0.011106	3.76	6.65	At most 4

*(**) denotes rejection of the hypothesis at 5 % (1%) significance level L.R. test indicates 2 co integrating equation(s) at 5% significance level E-views Output, (2014).

The results obtained from the Johansen multivariate co integration method were summarized in Table 4.3. From Table 4.3, the null hypothesis of no co integration, for $r=0$ and $r \leq 1$ in the model, was rejected. The statistical values of these tests were less than their critical values; hence there exists long run equilibrium or relationship among the variables. The implication of this result is that there is the possibility that a long run relationship exist between Bank distress variable and its determinants used in the model.

The co-integration test showed that the null hypotheses of no co-integration between the variables are rejected because the Likelihood ratio is greater than the 5 per cent critical value. This implies that there is co-integration between Bank Distress indicators such as Exchange Rate(EXC), Inflation(INF), Money Supply(M2) and Corruption(COR) Given the existence of at least two (2) co

integration equation among the variables, it implies therefore that there is a long run relationship between the dependent and independent variables.

As a result of the co integration in the model, a long run error correction mechanism needs to be established. Adopting the Engle-Granger representation, the error correction dynamic specification in the form below is employed:

$$\Delta BKC = \alpha_0 + \alpha_1 \Delta Z_t + \alpha_2 (BKC - Z)_{t-1} + e_t \dots\dots\dots(4)$$

where z is the vector of variables that co integrate with BKC variable as reported in Table 4.3 Since EXC, INF, M2, COR, co integrate with BKC, equation (4) can be written as: $\Delta DBKC_t = \alpha_0 - \alpha_1 \Delta M2_t + \alpha_2 \Delta DINF_t + \alpha_3 \Delta COR_t + \alpha_4 \Delta DEXC_t + \alpha_5 ECM_{t-1} + e_t \dots\dots(5)$

Where ECM_{t-1} is the lagged time series of residuals from the co integrating vector. Equation (4) incorporates a corrective mechanism by which previous disequilibria in the relationship between the level of Bank Distress and its determinants as in equation (5) affect the current change in Bank Distress. This way, an allowance is made for any short run divergence in Bank Distress from the long run target. The estimated form of equation (5) gives the result below.

Table 4.3: Error Correction Results

Dependent Variable: DBKC

Method: Least Squares

Variables	Coefficients	Std, Error	t-Statistic	Prob.
DM2(1)	-0.000283	8.29E-05	-3.417570	0.0046
DEXC(2)	-5.365162	9.446714	-0.567940	0.5798
DINF(2)	-3.443082	4.958331	-0.694403	0.4963
DCOR(1)	0.001105	0.000269	4.102458	0.0012
DBKC(2)	-0.280694	0.197103	-1.424101	0.1715
ECM(1)	-30.15599	30.28409	-0.995770	0.3375

R Squared: 0.570836 Durbin-Watson stat: 1.637707

Source: E-views Output, (2015).

Given the results of the co integration test which confirmed the existence of co integration among variables in the Bank Distress models, dynamic error correction model (ECM) which was considered appropriate for the analysis suggest that the overall coefficient of determination (R^2) is about 40 per cent. This suggest that about 57 per cent of the variation in Bank Distress is explained by the variation of the Bank Distress determinants (INF, COR, M2 and EXC) in the equation. The Durbin Watson (D.W) statistics of 1.63 is substantially very close to the traditional benchmark of 2.0 in the model. The study therefore concludes that there is a no sign of auto- correlation or serial correlation in the model specification; hence the assumption of non autocorrelation is not violated.

Appraising the signs and magnitude of the coefficients, it is observed from the result that Money Supply has a negative but insignificant relationship with Bank Distress within the years under study.. This result suggests that the variable (M2) obey its theoretical expectation with the right sign. It is also observed that Inflation (INF) did not obey it's a priori expectation because it is negatively signed and does not have significant relationship with Bank Distress within the study period. Exchange Rate (EXC) has a positive but insignificant relationship with Bank Distress determinants. Corruption (COR) is positively and rightly signed and has significant effect on Bank Distress in Nigeria. Finally, ECM has a Negative and significant relationship with the Bank Distress in Nigeria.

From the table, it is also evident that a one per cent rise in the money supply will on the average lead to about 1 percent decrease in Bank Distress at 5 % significance level. The results also suggest that a 1 % increase in inflation will on the average lead to about 344 per cent decrease in Bank Distress in Nigeria. Nigeria. Exchange rate on the other hand has its sign right and has significant relationship with bank distress , however, a 1 per cent increase or appreciation of the domestic currency will on the average lead to about 373 per cent decrease in Bank distress in Nigeria. From the result, is also seen that a 1 per cent rise in corruption will on the average lead to about 1 per cent increase in Bank distress in Nigeria. Lastly, the ECM coefficient shows Negative relationship; it implies that the model corrects its short run disequilibrium by about 301 per cent speed of adjustment in order to return to the long run equilibrium. The variable is rightly signed.

4.4. TEST OF HYPOTHESES USING T TEST

Hypothesis One

H₀: Money supply does not have significant effect on Bank Distress in Nigeria.

Table 4.4: Relationship between money supply and Bank Distress in Nigeria (1986-2013)

Variables (1981-2013)	Coefficient	Standard Error	T-Statistic	Prob. Value	Decision
Bank Distress and Money Supply Deficit (m2)	-0.000283	8.29005	-3.417570	0.0046	Rejected

Authors Computation, 2014.

CONCLUSION

Since the probability value is less than 0.05, we reject the H₀ hypothesis and conclude that there is a significant effect of money supply on Bank Distress in Nigeria from 1986 to 2013. From the above analysis therefore, it is evident that Money supply does have statistically significant effect on the distress of banks in Nigeria.

Hypothesis Two

H₀: There is no significant relationship between Corruption and Bank distress in Nigeria.

Table 4.5: Relationship between Corruption and Bank Distress in Nigeria (1986-2013)

Variables (1981-2013)	Coefficient	Standard Error	T-Statistic	Prob. Value	Decision
Bank Distress and Corruption(COR)	0.001105	0.000269	4.102458	0.0012	Rejected

Authors Computation, 2014.

CONCLUSION

Since the probability value is less than 0.05, we reject the H_0 hypothesis and conclude that there is significant relationship between corruption and Bank Distress in Nigeria (1986-2013). From the above analysis therefore, it is also evident that the acts of corruption in the banking sector have a Negative effect on banks stability in Nigeria.

Hypothesis Three

H_0 : The Nigeria Exchange rate does not have significant effect on the distress of banks in Nigeria.

Table 4.5: Relationship between Exchange Rate and Bank Distress in Nigeria (1986-2013)

Variables (1981-2013)	Coefficient	Standard Error	T-Statistic	Prob. Value	Decision
Bank Distress and Exchange Rate(EXC)	37.36664	28.18061	1.325970	0.2077	Not Rejected

Authors Computation, 2014

CONCLUSION

Since the probability value is less than 0.05, we reject the H_0 hypothesis and conclude that there is significant relationship between exchange rate and Bank Distress in Nigeria (1986-2013). From the above analysis therefore, it is also evident that the exchange rate does affect Bank Distress in the banking sector in Nigeria.

4.6 AUTO CORRELATION TEST

The First order auto correlation was conducted in this study. The established lower limit (dl) and upper limit (du) of Durbin –Watson (DW) statistics were compared with the observed statistics “d” based on 5% level of significance and k- degree variable in the equation.

DECISION RULE

According to Gujarati, (2005), If $d_u < d < 4-d_u$, there is neither positive auto correlation nor Negative correlation. From the test conducted the tabulated d with 4 independent variables and 28 observation has $d_u=1.921$ and $d_l=0.511$.

Since the calculated d of 1.63 lies above the d_l of 0.511 and d_u of 1.921 and since it satisfies that condition of $d_l \leq d \leq d_u$, it means that there is no positive and negative auto correlation

4.7 DISCUSSION OF FINDINGS

The result and test above were aimed at evaluating the impact of inflation, exchange rate, money supply and corruption on the banking sector in Nigeria from 1986 to 2013. Several diagnostic checks were applied to ensure reliability of the result. More importantly, the parameters estimate and the estimated regression were done to meet the assumptions of OLS. The explanatory variation explained about 40% of the variation in the dependent variables while the rest was left unexplained and captured by the stochastic term, i.e U_t . The whole model was found to be statistically significant, that is, the Bank Distress determinants were statistically significant. therefore, the model logically suggest that these bank distress determinants jointly impacted on Bank Distress in Nigeria from 1986 to 2013.

Given the results of the co integration test which confirmed the existence of co integration among variables in the Bank Distress models, dynamic error correction model (ECM) which was considered appropriate for the analysis suggest that the overall coefficient of determination (R^2) shows that about 57 per cent of Bank Distress is explained by the variation of the determinants of bank distress in the equation.. The Durbin Watson (D.W) statistics of 1.63 is substantially very close to the traditional benchmark of 2.0 in the model. The study therefore concludes that there is a no sign of auto- correlation or serial correlation in the model specification; hence the assumption of non autocorrelation is not violated.

As observed from the result that Money Supply has a negative but insignificant relationship with Bank Distress within the years under study suggest that as more money is pumped into the economy, there would be an increase in the assets base of the bank and the banks will be able to meet up with capital base as a result of reduced rate of interest resulting from increase in money supply. This result suggests that the variable (M2) obey its theoretical expectation

with the right sign. It is also observed that Inflation (INF) did not obey its a priori expectation because it is negatively signed and does not have significant relationship with Bank Distress within the study period. This could be as a result of the fact that when there is inflation, the prices of goods increase, the banks are forced to raise interest rate in order to lower prices. Exchange Rate (EXC) has a positive but insignificant relationship with Bank Distress determinants. This occurs because as the domestic currency appreciates, interest rates are lowered giving room for more investment and in return, more savings from the bank customers which on the long-run, safeguards the bank from distress. Corruption (COR) is positively and rightly signed and has significant effect on Bank Distress in Nigeria. When banks cook-up their books in order to deceive the CBN inspectors, bank distress would be inevitable because on the long run, the bubble will burst as in the case of bank distress in 2009. Finally, ECM has a Negative and significant relationship with the Bank Distress in Nigeria.

From the table, it is also evident that a one per cent rise in the money supply will on the average lead to about 1 percent decrease in Bank Distress at 5 % significance level. The results also suggest that a 1 % increase in inflation will on the average lead to about 344 per cent decrease in Bank Distress in Nigeria. Nigeria. Exchange rate on the other hand has its sign right and has significant relationship with bank distress, however, a 1 per cent increase or appreciation of the domestic currency will on the average lead to about 373 per cent decrease in Bank distress in Nigeria. From the result, it is also seen that a 1 per cent rise in corruption will on the average lead to about 1 per cent increase in Bank distress in Nigeria. Lastly, the ECM coefficient shows Negative relationship; it implies that the model corrects its short run disequilibrium by about 301 per cent speed of adjustment in order to return to the long run equilibrium. The variable is rightly signed.

Hypothesis one was rejected because Money supply was found to be significantly related to Bank Distress in Nigeria with probability value less than the benchmark of 0.05 as in table 4.4 above. This finding corroborates Ohwofasa, & Mayuku, (2012) on Determinants of Bank Distress and effect on Nigerian Economy, 1986-2010: An Empirical Analysis. They found that money supply is a determinant of Bank Distress from 1986 to 2010.

Hypothesis two was also rejected due to the fact that the probability value of corruption within the study period was below the acceptable benchmark of 0.05. The findings suggest that corruption fuelled bank distress between 1986

and 2013 and that corruption does have significant effect on the stability of bank through in Nigeria.

Lastly, Hypothesis three was not rejected because probability value of exchange rate within the study period was above the acceptable benchmark of 0.05. The findings suggest that exchange did not contribute to bank crisis within the years studies and that it is not a determinant of bank distress because it is not have statistically significant relationship with bank distress between 1986 and 2013 in Nigeria.

5.0. SUMMARY, CONCLUSION AND RECOMMENDATION.

5.1. SUMMARY OF FINDING

The study examined the determinants of bank distress in Nigeria from 1986 to 2013. The role of macroeconomics indicators such as Inflation, Interest, exchange rate, money supply and the index of corruption were examined. The empirical result as well as the theoretical underpinnings shows that broad money supply, corruption and exchange rate have significant effects on the crisis of banks in Nigeria. Corruption was found to be the determinant of bank distress in Nigeria.

The variables were found to be stationary after the first and second difference {i.e. $I(1)$ and $I(2)$ } which means that they were co integrated and ECM was added to the data as an error correction mechanism. The long run equilibrium was found to have feedback of 301% of the Bank distress of the previous year's disequilibrium from the long run monetary policy which shows the impact on the determinants of bank distress within the years under study. The model was also found to have no autocorrelation with the calculated Durbin Watson above the du and dl .

5.2 CONCLUSION

Given the size of Nigerian economy and her natural and human resources, the country ought to be the gateway to Africa in terms of development for both domestic and foreign investment to thrive for anticipated national savings. Therefore, in order to play this important leadership role, Nigeria's economy must move on the right direction of sustainability of growth and development. However, for this to be achieved, the financial sector which is one of the bed rocks of development of any Nation ought to be safeguarded hence, the determinants of bank were analyzed and evaluated for the purpose of identifying the causes of financial sector downturn in Nigeria.

5.3. RECOMMENDATION

Based on the findings made in the course of this study, the following recommendations are made for the government to adopt in order to preferring solution to bank distress in Nigeria;

1. To ensure a sustained growth for the Nigerian economy, the various macroeconomic variables that constituted impediments to growth should be well managed.
2. There should also be adequate and workable corporate governance practice in the banking sector.
3. The Government should also endeavour to make the financial sector more viable in order to meet the flexibility of the monetary policy of the Central Bank. Law relating to operation of the financial institutions could be made less stringent and favourable for the operations to have room to
4. The Government should also capitalise on the desire of Nigerians to invest on short term instrument. Though the stock exchange market is gradually appreciating, the CBN can re invent the secondary market in order to boost investors' confidence. This is to capture and regulate the financial sector to achieve the desire aims. More rewarding interest rate should be attached to such instrument if deemed necessary.

Lastly, Corruption at all levels in the industry must be dealt with. Similarly, broad money supply also found as the root cause of crises in the banking sector must be adequately checked.

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