

Macro Effect of Global Financial Crisis on Nigerian Economy

Oke, Michael Ojo.

Department of Banking and Finance

Faculty of Management Sciences

Ekiti State University, Ado Ekiti, Nigeria

E-mail: okemike2001@yahoo.com

Ajayi, Lawrence Boboye

Department of Banking and Finance

Faculty of Management Sciences

Ekiti State University, Ado Ekiti, Nigeria

E-mail: boblaw2006@yahoo.com

Received: April 18, 2012

Accepted: May 15, 2012

Published: June 1, 2012

doi:10.5296/ajfa.v4i1.1660

URL: <http://dx.doi.org/10.5296/ajfa.v4i1.1660>

Abstract

This study examined the macro effect of the global financial crisis on Nigerian economy using key economic variables. It adopted the Error Correction Mechanism (ECM) technique to analyse the time series data from secondary sources. The study used Gross Domestic Product (GDP) as the dependent variable, as well as, a measure of economic growth while the other key variables such as the Inflation Rate (INF), Money Supply (MS) and Foreign Direct Investment (FDI) represent the explanatory variables. The results revealed a positive relationship between GDP and FDI as well as MS, while a negative relationship was found between GDP and Inflation. The study recommended among others; that to reduce or eliminate completely the negative effect of the global financial crisis, the government and the monetary authority must formulate and implement policies that will reduce inflation, diversify the economy as well as encouraging local and foreign investors.

Keywords: Globalization, Financial Crisis, Investors, Capital Market Shocks, Error Correction Model

1. Introduction

Globalization is a process of integrating economic decision making such as the consumption, investment and savings process all across the world. It is a process of creating a global market place in which increasingly all nations are forced to participate. Globalization can easily transfer the happenings in one economy to another (Abdul, 2009). The key elements of the process of globalization include the interconnection of sovereign states through trade and capital flows; harmonization of the economic rules that govern relationship between these sovereign states; creating structures to support and facilitate dependence and interconnection and creation of a global market place. One of the major adverse effect of globalization is the recent economic and financial crisis which started in the United States in September 2008 and has rattled the financial markets and of both the developed and developing economies around the globe. This crisis was as a result of the bursting of the United States housing bubble which peaked in approximately 2005-2006. High default rates on Subprime and adjustable rate mortgages began to increase quickly thereafter. An increase in loan packaging, marketing and incentives such as easy initial terms and a long-term trend of rising housing prices had encouraged borrowers to assume difficult mortgages in the belief that they would be able to quickly refinance at more favourable terms (Blanchard, 2009).

However, interest rates began to rise and housing prices started to drop moderately between 2005 and 2007 in many parts of the U.S., refinancing became more difficult. Defaults and foreclosure activity increased dramatically as easy initial terms expired, home prices failed to go up as anticipated, and adjustable rate mortgages interest rates reset higher. Consequently, housing prices declined, major global financial institutions that has borrowed and invested heavily in subprime mortgage reported significant losses. Falling price also resulted in homes worth less than the mortgage loan, providing a financial incentive to enter foreclosure. This created a serious financial crisis which spread to other part of the World including Nigeria. This crisis continues to drain wealth from consumers and erodes the financial strength of banking institutions in the global economies.

Since the world is linked inextricably by globalization, financial crisis has continued to dominate global discussions on global economy and every economy is trying to formulate strategies to mitigate the impact of the financial crisis on domestic and global economy. The risk of global recession has heightened significantly and volatility of commodity prices which is the mainstay of most developing countries like Nigeria has increased further. If this situation continues to deteriorate, developing countries could be in jeopardy (Adewale, 2009). Given the above mentioned situations, there is the need to investigate the effect of the global financial crises on the Nigerian economy and to recommend probable ways to reduce the effect.

2. Literature and Theoretical Review

2.1 *The Global Financial Crisis and the Nigerian Economy*

The reasons for this crisis are varied and complex, but largely, it can be distributed to a number of factors in both the housing and credit markets which developed over an extended

period of time. Some of these include: the inability of homeowner to make their mortgage payments, poor judgment by the borrower and /lender, speculation and over building during the boom period, risky mortgage products, high personal and corporate debt levels, financial innovation that distributed and concealed default risks, central bank policies and regulation.

The impact of the crisis on the Nigerian economy has different implications for the capital market, the banking sector, foreign exchange and the balance of payments, as well as the real sector. Market capitalization fell by 45.8% in 2008, a sharp reversal of growth from 2007, when the market grew by 74.4% (Okereke-Onyiuke, 2009). The crude oil price (Bonny light) declined precipitously from U.S. and 147 percent per barrel in July 2008 to \$47 per barrel in January 2009, prompting the government to seek other sources of financing for the 2009 fiscal year, as it could not rely on earnings from crude oil exports. Eventually, there was a huge budget cut at all tiers of government and social spending, such as on education, health and other millennium development Goals was deeply affected. The Nigerian currency, the naira, has also been depreciating against the U.S. dollar and this has implications for foreign reserves, which dropped from \$67 billion in June 2008 to \$53 in December 2008 and to about \$34billion in 2011. The all share index and the market capitalization of the 233 listed equities capture activities and performance on the Nigerian Stock Exchange (NSE). The index has been growing over the years from a value of 12,137 in 2002 to 66, 371 in March 2008, with a market capitalization of 4998 trillion because of the melt down. By the end of the first week of March 2009, values had declined to 21,893 points, with a market capitalization of 4900 trillion. This value had further declined to 21, 608 points, with a market capitalization of 4836 trillion, by the end of the second week of March 2009. This reveals that between March 2008 and March 2009, the all share index had lost a total share of 67%, while market capitalization had lost 62% of its value (Okonjo-Iweala, 2009).

There are concerns regarding how rapidly the global financial crisis penetrated the Nigerian Capital Market, especially given that there is hardly any thriving domestic mortgage market. The decline of indicators of activities on the NSE before the escalation of the crisis on the global scene in July 2008 became a source of concern for many. However, the emerging facts reveal that the crisis may have been made evidence in the capital market through various channels (Soludo, 2009). Foreign Portfolio investment withdrawals and withholdings in order to service financial problems at the foreign investors home as well as prospects of reduced FDI are bound to affect investor confidence in the economic health of Nigeria. Evidence on foreign portfolio withdrawals shows that the total financial inflows to Nigeria between 2007 and 2008 increased by 21%, while that between 2008 and 2009 reduced by 38.6%. the adoption of a public-private partnership (PPP) policy platform to implement huge investment plans such as oil and gas (liquefied natural gas – LNG-project), power plants, railways, housing and roads, therefore exposed the country more to FDI uncertainties and vagaries. The credit crunch experienced by lending institutions, affect business that requires short and long term fund including banks' lending to corporate organizations as well as inter-bank short-term lending. In a country like Nigeria, where mortgages and credit card purchases are not well developed, this credit crunch became manifest in weakened risk assets of banks that had given out loans to some investors to invest in other financial instruments (particular secondary market purchase and initial public offerings (IPOs), in the hope of making quick

returns through a quick turnaround of their portfolio. This was what was termed otherwise 'margin lending'. This may also be termed Nigeria's own version of the 'Subprime problem', resulting in an exploding domestic stock market and stock prices and astounding returns to both the spectaculars and providers of the margin funds (the banks). Other factors that have had a serious impact on the stock market are what can be called the 'intensifiers'. These include policy interpretations by the market, which may have been induced by the slow government initial stand on the economy. This also includes interpretation of announcements, proclamations and rumors by the market. Examples include the proposed recapitalization plan of the stock market players (stock broking firms) as well as rumors on the termination of margin lending by banks.

2.2 Theoretical Framework

Many scholars have given various theories to explain economic crisis or global financial crisis. Kaldor, in 1940 built a model of trade cycle based on the Keynesian terminology of savings and investment. He showed that trade cycle is the result of pressure that push the economy towards the equality of anticipated, expected, or planned (ex-ante) saving and investment. Kaldor shows the stability and instability conditions in the form of linear diagrams, through the cycle is only possible when investment and savings are non-linear. The forces that bring about lower turning point are not so certain at the higher level. A boom left to it is certain to come to an end but depression might get into a position of stationeries and remain there until external changes (the discovery of new markets) come to rescue. Thus the cycle in this model are not necessarily symmetrical, as a matter of fact, they depend on the slopes of investment and savings curves and the rate at which they shift in each phase of the cycle.

Marxist Theory of Trade Cycle based on market capitalism is intrinsically prone to crisis. In Marx's view, profit is the major engine or the market-economy, but business (capacity) profitability has the tendency to fall, that recurrently creates crisis in which mass unemployment occurs, business fail, the remaining capital is centralized and concentrated, profitability is recovered. In the long run, these crises tend to be more severe and the system eventually fails. Thus Marx viewed capitalism as a system that cannot be put under societal condition. The Chamberlain Oligopoly Model proposed a stable duopoly solution recognizing mutual dependence between the two sellers or nations. He asserts that each seller act so as to render his profit a maximum. In order to do this, he will take account of his total influence upon the price, indirectly as well as directly. When a seller remains passive to changes in price or output of his rival, it is a direct influence. On the other hand, when a seller reacts to the price or output changes of his rivals and changes his own price or output, the influence is indirect. According to Chamberlain; when interdependence is recognized between sellers, both direct and indirect influences of a change in the price or output of a seller leads to a stable industry equilibrium with monopoly price and output.

2.3 Review of Empirical Studies

Bogunjoko (1997)) examines the impact of financial crisis on Nigeria, which makes Nigerians to face an uncertain economic situation both in the near and far future as a result of the oxidizing global and domestic financial crisis. The findings show that the capital market

is in ratters, banks are struggling, the sole dependency on oil continues to bedevil the nation, and our foreign reserve situation remains an enigma wrapped in a mystery. He concludes by calling for an urgent need to adjust government's expenditure and upcoming budget accordingly.

Okonjo-Iweala (2009) examines the impact of such crisis on oil price. Which she saw as the biggest component of external shock that has hit Nigeria in which she suggest two challenges faced by policy makers, which are; how to respond to the down cycle of oil prices and how to ensure that the economy emerges stronger and more diversified after the crisis ends. She concluded by saying that fiscal and exchange rate/monetary policy are the vehicles that will sustain the economy's growth and quest for diversification.

Ajakaiye and Fakiyesi (2009) used computable general equilibrium (CGE) methodology to examine the impact of global financial crisis. The study examined that the Nigerian economy is affected by the current global financial crisis which is transmitted via the fall in the prices of crude oil exported to the international market. Their result of the research shows that negative oil price shock has negative impact both in the short and medium term growth of the economy, based on their findings, the oil price shock have had a stagflation effect on the Nigerian economy; the showdown in the rate of economy growth and increase in the domestic price level. Also, they reduce the level of domestic investment and worsened the government account and income position. Besides, the shocks have increased the level of poverty and worsened household welfare over the period of August 2008 to January 2009 and are expected to worsen them in 2010.

Avgouleas (2008) enumerated the causes of the crisis as: breakdown in underwriting standards for subprime mortgages; flaws in credit rating agencies assessment of subprime Residential Mortgage Backed Securities (RMBS) And other Complex Structured Credit products especially, Collateralized Debt Obligations (CDOs) and other Asset-Backed Securities (ABS); risk management weakness at some large U.S. and European financial institutions and regulatory policies including capital and disclosure requirements that failed to mitigate risk management weakness.

3. Methodology

In order to effectively realize the objectives of the study, this study adopts the model of Rusuhuzwa and Baracako (2009). In their study, they investigated the impact of global financial crisis showing private capital inflows and economic growth in Rwanda and Burundi using foreign direct investment (FDI) upon real GDP growth. FDI is an important variable in any study on global financial crisis because the inflows of foreign capital or international financial assets have the tendency to import inflation from home country to the host country as a result exposes the host country to global financial crisis. However, the model was modified to suit the Nigerian environment as follows:

$$\text{GDP} = f(\text{INF}, \text{MS}, \text{FDI}, \epsilon) \dots\dots\dots (1)$$

Where:

GDP= Gross Domestic Product, INF=Inflation, MS=Money Supply, FDI= Foreign Direct Investment, ε =Stochastic Variable, f =Functional relationship.

Specifying the model in explicit form by log-linearising, it becomes:

$$\text{Log (GDP)} = X_0 + X_1 \text{Log (INF)} + X_2 \text{Log (MS)} + X_3 \text{Log (FDI)} + \varepsilon \dots \dots (2)$$

Where:

Log=Natural logarithm, X_0 =Intercept of the relationship in the model;

X_1 =Co-efficient of inflation, X_2 =Co-efficient of money supply, X_3 =Co-efficient of Foreign Direct Investment

Specifying the model in a time series form, we have;

$\text{Log (GDP)}_t = X_0 + X_1 \text{Log (INF)}_t + X_2 \text{Log (MS)}_t + X_3 \text{Log (FDI)}_t + \varepsilon \dots \dots (3)$ Specifying the model in a general Error Correlation Model (ECM) gives thus;

$$\text{Log (GDP)} = X_0 + \sum_i \text{Log (INF)}_{t-1} + \sum_i X_2 \text{Log (MS)}_{t-1} + \sum_i X_3 \text{Log (FDI)}_{t-1} + \sum_i \text{ECM}_{t-1} + \sum_t \dots \dots (4)$$

Where $_{t-1}$ = means that the variables were lagged by one period

$$\sum_i = 0$$

ECM_{t-1} = Error Correlation term

\sum_t = White noise residual

Once co-integration is established alongside its extent and form, the next step is to proceed to the error correction mechanism.

The Augmented Dickey-Fuller (ADF) Unit root test will be employed to the stationarity of data and order of integration. Johansen co-integration test will reveal whether long-run relationship exist among the variables and examines the long-run effect of the macroeconomic variables on the endogenous variable while the Error Correction Mechanism (ECM) shows the adjustment process and indicates how the disequilibrium of the previous period shocks adjusts into the long-run equilibrium in the current period on GDP.

A priori expectations are determined by the principles of economic theory and refer to sign and size of the parameters of economic relationship.

Inflation is expected to have a negative relationship with the Gross Domestic Product because an increase in inflation will have a negative effect on Gross Domestic Product (GDP). Thus, $\delta \text{GDP} / \delta \text{INF} < 0$, Money Supply is expected to be positively related with the Gross Domestic product because an increase in Money Supply will have a positive effect on Gross Domestic Product (GDP). Thus, $\delta \text{GDP} / \delta \text{MS} > 0$, Foreign Direct Investment is expected to be positively related with the Gross Domestic product because an increase in Foreign Direct Investment will have a positive effect on Gross Domestic Product (GDP). Hence, $\delta \text{GDP} / \delta \text{FDI} > 0$.

Data on the selected economic and financial indicators in Nigeria were sourced from secondary sources such as the review of CBN (Central Bank of Nigeria) statistical bulletin, Central Bank of Nigeria annual report, Economic reports, Publications of the Nigeria Institute of Economic and Social Research (NISER), Federal Office of Statistics annual abstract and other write-ups gotten from various economic journals.

4. Analysis and Findings

4.1 Unit Root Test

There is need to know the status of the variables used in the study. To realize this, the Unit Root Test is carried out to know if the data of the variables are stationary with respect to time. The table below shows the results of the stationary test for all variables used. The stationary level is considered after comparing the ADF against the Mackinnon Critical value at 5% level.

Table 1. Result of Stationary Test at Level

| Variables | ADF test Statistical value | Mackinnon Critical value (5%) | Nos of time difference | Remark |
|-----------|-------------------------------|----------------------------------|---------------------------|----------------|
| LDGP | 1.21399 | 3.0521 | 1(0) | Non-stationary |
| LMS | 2.726451 | 3.0521 | 1(0) | Non-stationary |
| LINF | 1.898187 | 3.0521 | 1(0) | Non-stationary |
| LFDI | 1.722632 | 3.0521 | 1(0) | Non-stationary |

Source: Author's Computation.

From the table above, the absolute value of Mackinnon Critical Value at 5% are greater than the ADF test statistical value in all the variables. Hence, the null hypothesis of the presence of unit root at 1% is accepted since there is non-stationary of the variables at level differences of the time series variables. There is need to carry out the test at first difference to see if there will be stationarity of the variables.

The table below shows the result of first difference

Table 2. Result of Stationary Test at First Difference

| Variables | ADF test Statistical value | Mackinnon Critical value (5%) | Nos of time difference | Remark |
|-----------|-------------------------------|----------------------------------|---------------------------|----------------|
| LDGP | 4.041385 | 3.0659 | 1(1) | Stationary |
| LMS | 1.317554 | 3.0659 | 1(1) | Non-stationary |
| LINF | 3.196039 | 3.0659 | 1(1) | Stationary |
| LFDI | 3.411465 | 3.0659 | 1(1) | Stationary |

Source: Author's Computation.

The above table shows that the dependent variable (LGDP) and the Independent Variables (LINF) and (LFDI) are stationary at first difference while the independent variable (LMS) is non stationary at first difference because the result shows that the ADF statistics value of LMS is still less than the Mackinnon Critical Value at 5%. However, this is not so in the case of LGDP, LINF and LFDI. There is need to carry out further test of second difference with respect to LMS as shown in the table below

Table 3. Result of Stationary Test at First Difference

| Variables | ADF test Statistical value | Mackinnon Critical value (5%) | number of time difference | remark |
|-----------|-------------------------------|-------------------------------|---------------------------|------------|
| LMS | 1.317554 | 3.0659 | 1(2) | Stationary |

Source: Author's Computation.

The table above shows that the variable (LMS) is stationary at its second difference. That is, ADF statistics value of the variable is greater than the Mackinnon Critical Values which means the variable is stationary at the second difference.

Table 4. Summary of the Order of Stationary

| Variables | Order of stationary |
|-----------|---------------------|
| LDGP | 1(1) |
| LMS | 1(1) |
| LINF | 1(1) |
| LFDI | 1(2) |

Source: Extracted from tables 4.2 and 4.3.

The table below shows the result of the ADF test equation on each of the variables with their different levels of stationary and lagged period. Also shown is their corresponding co-efficient of multiple determinations (R^2). The variable in each of the multiple are regressed together expressing one as dependent variable (i.e. LGDP) and others as independent variables. The test of significance is also conducted for each of the equation.

Table 5. The ADF Test Equation

| Variables | Co-efficient | Standard error | t-statistics | Prob. Value | R^2 |
|---------------|--------------|----------------|--------------|-------------|----------|
| D[LGDP(-1)] | -1.754102 | 0.434035 | -4.041385 | 0.0014 | 0.705657 |
| D[LGDP(-1)2] | 0.298668 | 0.263790 | 1.132218 | 0.2780 | |
| C | 0.449434 | 0.231293 | 1.943141 | 0.0740 | |
| D[LMS(-1),2] | -1.740934 | 0.479318 | -3.630593 | 0.0034 | 0.761387 |
| D[LGDP(-1),3] | 0.156279 | 0.279757 | 0.558622 | 0.5867 | |
| C | 0.049194 | 0.042394 | -1.160389 | 0.2685 | |
| D[LINF(-1)] | -0.938974 | 0.293793 | -3.196039 | 0.0070 | 0.534039 |
| D[LGDP(-1),2] | 0.058498 | 0.235271 | 0.248642 | 0.8075 | |
| C | -0.126097 | 0.144408 | -0.873202 | 0.3984 | |
| D[LFDI(-1)] | -1.578858 | 0.462809 | -3.411465 | 0.0046 | 0.712733 |
| D[LGDP(-1),2] | 0.115915 | 0.274899 | 0.421665 | 0.6802 | |
| C | 0.351342 | 0.243382 | 1.443582 | 0.1725 | |

Source: Author's Computation.

4.2 Co-Integration Test

The test for co-integration was performed using Johansen maximum likelihood estimation approach. Under this approach, trace test statistics was used on testing whether a long run relationship exist among the variables.

Table 6. Result of the Johansen Co-Integration Test

| Hypothesized Number of (CEs) | Eigen Value | Trace statistics or likelihood ratio | 5% critical value | 1% critical value |
|---------------------------------|----------------|--------------------------------------|-------------------|-------------------|
| None ** | 0.755691 | 53.84015 | 47.21 | 54.46 |
| At most 1* | 0.560198 | 29.88166 | 29.68 | 35.65 |
| At most 2* | 0.501416 | 15.91733 | 15.41 | 20.04 |
| At most 3* | 0.213632 | 4.085615 | 3.76 | 6.65 |

*(**) denotes rejection of hypothesis at 5% (1%) significance level.

L.R test indicates 4 co-integration equations at 5% significance level.

Source: Author's Computation.

The co-integration equation is specified as follows

$$\text{GDP} = -0.143321_{\text{MS}} + 0.814827_{\text{INF}} - 0.066983_{\text{FDI}} - 14.56459$$

(0.18220)
(0.30721)
(0.37823)

Note: Standard Error Statistics are stated in parenthesis.

The result in the above table shows the existence of co-integration or long-run relationship among gross Domestic Product (GDP), Money Supply (MS), Inflation rate (INF) and Foreign Direct Investment (FDI). The condition for co-integration among the variables is that the critical value at 5% must be less than the likelihood ratio. Considering the table, the critical value at 5% is less than the likelihood ratio at none hypothesized (i.e. the first column). Hence, the hypothesis of no co-integration has been rejected at 5% significance level.

Furthermore, the condition for the long-run model among the four (4) co-integration equations is that the equation with the highest log-likelihood (at absolute term) is chosen to be the long-run model.

Having established the long-run relationship among the variables through the use of Johansen co-integration test, the next step is to switch to the error correction model. The unit root test was also conducted on the error correction term with its ADF test statistics as (4.491639) and

critical value at 5% (-3.0659) at first difference. This shows that the error correction term is stationary at first difference.

An over parameterized error correction model is estimated by setting the lag length long enough in order to ensure that the dynamics of the model have not been constrained by a too short length.

The table below presents the over-parameterized error correction model.

Table 7. Over-parameterized model (ECM1)

| Variables | Co-efficient | Standard error | t-statistics | Prob. Value |
|---------------|--------------|----------------|--------------|-------------|
| D[LGDP(-1),2] | -0.148802 | 0.190948 | -0.779281 | 0.4582 |
| D[LMS,2] | -0.252517 | 1.175748 | -0.214771 | 0.8353 |
| D[LMS(-1),2] | 0.458036 | 0.967108 | 0.473614 | 0.6484 |
| D[LINF,2] | 0.132275 | 0.235532 | 0.561601 | 0.5898 |
| D[LINF(-1),2] | -0.106823 | 0.197278 | 0.541485 | 0.6029 |
| D[LFDI,2] | 0.028158 | 0.191885 | 0.146743 | 0.8870 |
| D[LFDI(-1),2] | 0.475977 | 0.352978 | 1.348459 | 0.2144 |
| ECM (-1) | -0.786531 | 0.415267 | -1.894039 | 0.0948 |

$R^2 = 0.93$, Durbin Watson Statistics = 1.918

Source: Author's Computation.

The table above shows the over parameterized over correction of Global Financial crisis and Nigeria's economic development. The ECM is negative as theory predicts, and the value indicates that about 79% error corrections take place in the model. Also, the R^2 is 0.93 or 93% with the Durbin Watson of 1.918. It could be deduced from the results that all the probabilities for the variables are greater than 10%. Therefore, there is no need to go further to the parsimonious error correction model (ECM2).

From the over-parameterized model result above, it can be seen that the co-efficient of Money Supply, Foreign Direct Investment and Inflation rate are in conformity with the 'a priori' expectations. There is a positive relationship between Gross Domestic Product, Money Supply and Foreign Direct Investment with the co-efficient of Money Supply and Foreign direct investment at 0.4580 and 0.4760 respectively, this implies that a unit increase in both MS and FDI will increase gross domestic product by 0.4580 and 0.4760 respectively.

Again, the co-efficient of inflation rate is negative in conformity with our ‘*a priori*’ expectations. This means that there is a negative relationship between GDP and INF. The co-efficient of INF is 0.106823, meaning a unit increase in INF will lead to 0.106823 unit decrease in GDP. More so, the ECM otherwise known as the speed of adjustment is significant with the appropriate sign i.e. negative sign in conformity with the ‘*a priori*’ expectation. This means that the present value of GDP adjust to changes in Money Supply (MS), Inflation rate (INF), and Foreign direct investment (FDI). The large value of the error correction variable given as 78.65% indicates a feedback of that value or the adjustment of that value from the previous period disequilibrium of the present level of GDP in the determination of the causality between the past level of GDP and the present and past level of MS, INF and FDI.

The co-efficient of determination (R^2) shows the percentage total of variation in the dependent variable explained by the independent variable. The R^2 from the model stands at 0.93 or 93%. This means that over 93% of the variation in the present state of gross domestic product is being explained by the past values of GDP and the present and past values of MS, INF, and FDI while 7% of the variation in the present value of GDP is being explained by the stochastic error term. The standard error test is carried out for the significance of the parameters. The standard error test measures the statistical reliability or significance of the co-efficient estimates. It is carried out by comparing the standard error value of the parameters and the co-efficient of the variables divided by 2.

Table 8. The Standard Error Test

| Variables | Co-efficient | Co-efficient 2 | S.E | H ₀ | H ₁ | remark |
|-----------|--------------|-------------------|----------|----------------|----------------|---------------|
| LMS | 0.458036 | 0.229018 | 0.927108 | Accept | Reject | Insignificant |
| LINF | 0.106823 | 0.0534 | 0.197278 | Accept | Reject | Insignificant |
| LFDI | 0.445977 | 0.2380 | 0.352978 | Accept | Reject | Insignificant |

Source: Author's Computation

From the above standard error test, it can be seen that all the variables in the model are statistically insignificant. This means that the null hypothesis is accepted while the alternative hypothesis is rejected.

The F-test shows the overall or aggregate significance of the model. The aim is to find out whether all the explanatory variables put together do actually have any significant influence on the dependent variable. It is carried out by comparing the F-calculated and F-tabulated. This follows an F-distribution value with $k-1$ and $n-k$ degree of freedom at 95% confidence level. Therefore with $V_1 = K-1 = 4-1 = 3$, $V_2 = N-K = 19-4 = 15$. Therefore, F-Tabulated = 3.24 F- Calculated = 20.648 (obtained from computer output). Since the F - calculated is

greater than the F- tabulated, the null hypothesis is rejected while the alternative hypothesis is accepted. This shows the overall significance of the model.

5. Conclusion and Recommendations

The accepted alternative hypothesis in this study has empirically confirmed that the global financial crisis strongly affect the Nigerian economy because of uncertainty in foreign direct investment and Money Supply that could create uncertainty in the level of investment which retards economic growth in. This is evidenced by the bearish trend in the capital market, the problem in the banking sector, the decline in commodity prices especially crude oil, the reduction in foreign direct investment and the decline in remittance from abroad are all result of the global financial crisis. Hence, it can be asserted that economic recession or crisis adversely affects the economic growth and development. It slows down the economy, investors are discouraged, producers do not have access to external fund to produce, consumers lack necessary money due to unemployment and therefore they cannot afford to buy the available goods in the market. However, several policy measures have been put in place by the Monetary Authority in Nigeria (CBN), Federal government and other regulatory authorities in order to cushion the adverse effect of the crisis. However, more still needs to be done in this direction.

Given the various adverse implication of the global financial crisis has evidenced in this study, it is appropriate to suggest some solutions that could solve or reduce the effects. First, there should be adequate facilities for the remittance of profit, dividend and interest so that the foreign investors will be sure of repatriating their profit back to their various countries. Second, there should be special awareness and training programmes for Nigerians on the importance of investment in order to promote economic growth and development. Third, Political stability should be enhance encourage foreign investors because frequent changes in government may come with different policies and ideas which may not be to the advantage of the investors. Fourth, the regulatory authorities and policy maker in Nigeria should try as much as possible to bring down the cost of investment (Interest rate) so as to encourage both the foreign and local investors to invest in Nigeria. Fifth, Overdependence on imported raw materials should be curbed by encouraging local substitutes because inflation could be imported into the country through the importation of raw materials in time of crisis. Sixth, To avoid any problem from future global financial crisis, there is an urgent need for Nigeria to diversify its export market and seventh, there is an urgent need for the Nigerian government to diversify the economy away from being a monoculture of oil and gas to embark on deep and systematic reform of financial institutions to engender stability and robust policies.

References

- Aluko, M.E. (2008). Capital Market, Foreign Reserves Vs. Global Financial Meltdown in Nigeria. *Zest International*, 1(6).
- Adewale, D. (2009). Global Economic Crisis: Nigeria and National strategy. *Journal of Nigerians in America*, 40(2), 145-167

- Ajaikaiye and Fakiyesi (2009). Global Financial Crisis, discussion series Nigeria. United Kingdom. Overseas Development Institute (ODI). 111 Westminster Bridge Road London SE1 7JD. Paper 8
- Avgouleas, E. (2008). Financial Regulation, Behaviour Finance, and the Financial Credit Crisis in search of a new Regulatory Models. URL <http://papers.ssrn.com> (November)
- Bogunjoko, J .O. (1997). Monetary Dimension of the Nigeria Economic Crisis: Empirical Evidence from a Co-integrated Paradigm. National Center for Economics Management and Administration (NCEMA), *Nigeria Journal of Economics and Social Studies*, 39(2), 145-167
- Blanchard, Olivier. (2009). The Crisis: basic Mechanisms, and Appropriate Policies, IMF working Paper, WP/09/80
- Crotty, J. (2008). Structural Causes of the Global Financial Crisis: A Critical Assessment of the New Financial Architecture, *Political Economy Research Institute (PERI) Working Paper*, no. 180.
- Ibrahim, M .H., & Aziz, H. (2003). Macroeconomic variables and the Malaysian equity market: A view through rolling subsamples. *Journal of Economic Studies*, 30(1), 6-27. <http://dx.doi.org/10.1108/01443580310455241>
- Mukherjee, T. K., & Naka, A. (1995). Dynamic Relations between Macroeconomic Variables and the Japanese Stock Market: An application of a vector error-correction model. *Journal of Finance Research*, 18(2), 223-237.
- Okereke-Onyiuke, N. (2009). A review of Market Performance in 2008 and the Outlook in 2009. *The Nigerian Stock Exchange*.
- Okonjo-Iweala, N. (2009). The Global Financial Crisis: Impact and Implication for Nigeria, Distinguished Lecture Delivered at African University of Science and Technology. Abuja; March 16
- Okonjo-Iweala, N (2009). The Nigerian Stock Exchange Market Performance in 2008 and outlook for 2009. *Zenith Economic Quarterly*, 4(1), January, 12-20
- Soludo, C. (2009). Global Financial and Economic Crisis. How vulnerable is Nigeria? A paper presentation by Governor of Central Bank of Nigeria on January, available on www.cenbank.or/uut/SPECHES/2009.
- Ross S. A. (1976). The Arbitrage Theory of Capital Asset Pricing. *Journal of Economic Theory*, 13, 341-360. [http://dx.doi.org/10.1016/0022-0531\(76\)90046-6](http://dx.doi.org/10.1016/0022-0531(76)90046-6)
- Rusuhuzwa, T. K., & Baracako, J. (2009). 'The Global Financial Crisis showing Private Capital Inflows and Economic Growth in Rwanda and Burundi. *African Economic Conference*, Addis Ababa.