

Appraisal of The Effect of The Global Financial Meltdown on The Nigerian Money Market

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Abstract

This study looked at the effect of the global financial meltdown on the Nigerian money market. To start with, it identified the major problems associated with the Global financial crisis and its effects on the Nigeria economy. As the crisis affect trade and investment flows, the Nigerian money market have so far triggered a rebound and allayed panic about the systemic financial collapse. The Ordinary Least Square (OLS) technique of regression analysis was adopted in analyzing the empirical data for Non-crisis period from 2000-2005 and the crisis period from 2006-2009 after necessary adjustment were carried out on the relevant data. Money supply/Gross Domestic Product (which stands as proxy for the impact of the Global financial meltdown) serves as the dependent variable while other money market indicators (TBs, CPs, Bas, CDs, BLR and INF) serve as the explanatory variables in the first and second models. The findings from the empirical analysis showed that in the non-crisis era (2000-2005) the explanatory variables all met apriori expectation. However, in the crisis era, only the coefficient of inflation retained its apriori sign. This implies that economic activities were adversely affected by the global financial meltdown as seen in the adverse effect on financial deepening. This in turn has a corresponding effect on the Nigerian money market, thus dis-stabilizing its indicators. This can be attributed to the failure of the Nigerian money market regulator to fulfill its primary responsibilities of supplying needed funds to critical sectors where such funds are needed during the period of financial crisis. This study therefore recommends that adequate procedures for handling systemic crisis should be drawn up promptly in preparation for contingencies. Monetary authorities should identify the vulnerabilities of the money market and safeguard its effectiveness as a means of reducing the further effects of the financial meltdown on Nigerian economy at large.

Keywords: Financial meltdown, Money market, systemic crisis, financial deepening, Nigeria

1. Introduction

The global financial crisis poses the biggest risk since the 1930s to the world economy. “It borders on stating the obvious to say that the phenomenon called financial meltdown, credit crunch or recession that has its roots in the subprime episode in the United States of America in 2007 has put not a few economic jurisdictions in a tails pin” (Simon, 2009). From the United States to the United Kingdom; from the Middle East to Asia; and from the Russian federation to Africa, no economy is really totally immune to the state of flux that became the lot of the global economy by the close of the third quarter of 2009. In the 19th and early 20th centuries, many financial crises were associated with banking panics, and many recessions coincided with these panics. Other situations that are often called financial crises include stock market crashes and the bursting of other financial bubbles, currency crises, and sovereign defaults (Kindleberger and Aliber, 2005, Leaven and Valencia, 2008). Since its onset, economy managers, financial experts and economists, especially those in the worst hit climes, have characterized the phenomenon in various ways – many, every euphemistically as mere threat of a recession. Yet, others describe it in grimmer terms as something akin to the late nineteen twenties – with a potent of even more far – reaching consequences. The argument has even commenced among scholars, public policy analysts and financial experts of various hues as to which, between the industrialized nations and the emerging Nigerian money market, will bear the brunt of the global phenomenon.

According to Okeke (2008), “in the face of the yet unfolding scenarios, we peeped into the genesis of the ‘financial tsunami’, reviewed the characterizations in various economies and captured it all for your update in our global watch under the rubric: global financial crisis: recession, depression and other threats”. From this treatise emerges the intriguing fact not agreed, either in the typology or bouquet of solutions to this huge global challenge”. Cognizant of the fact that at the core of the subsisting global credit crunch is the corporate failure of some giant financial institutions, the topic titled: “Warfare and modern strategy: lessons for Nigeria businesses” digs into the origins and application of strategy in warfare – linking it with the business survival of today. According to Ezirim(2005) “while Nigeria’s future businessmen and women have much to gain by examining the traditional theories and practices of strategy, their success or otherwise will be defined by their flexibility of mind and ability to “think out-side the box’ in crafting strategies for the companies that will define Nigeria’s future”.

The Nigerian money market institutions enjoyed robust financial growth in recent years that strengthened their balance sheets. Sound economic policies were important factors as was the favourable external support in the form of debt relief and higher credit inflows,” (IMF, 2009). But the food and fuel prices shock of 2007-2009 that preceded the current global financial crises weakened the external position of net importers of food and fuel, caused inflation to accelerate, and dampened growth prospects. The global financial crisis greatly compound the policy challenges confronting Nigeria policy makers as it strives to consolidate its economic gains and meet the Millennium Development Goals (MDGs). In the first few months of the financial crises, there was the widely held view that the impact on Nigerian money market would be minimal because of their low integration into the global economy. Further, Nigeria economy tend to have very small inter-bank markets and several financial institutions have restrictions on new financial product as well as market entry, which should shield them from the direct effects of the global financial crises. Recent developments have, however, shown that the negative contagion effects of the crises are already evident in the Nigeria economy.

1.1 Statement of Research Problem/Objectives

The Nigerian money market has over the years been performing its traditional role. The transmission of the financial crisis from the US and Europe to the rest of the world including Nigeria came through a number of channels. Nigerian money market had not engaged in the kind of practices seen in the market that populate the financial centers in the major industries. Balance sheets were typically not exposed to the toxic assets that increasingly dominated positions in the money market. Derivatives instrument, futures contract were employed much less frequently and were generally limited to the more traditional instruments employed to hedge against currency and other risks associated with trade. The financial institutions in the money market either shied away from the more exotic instruments, including such things as credit default swaps and collateralized debt obligations, or were prevented by regulation from holding or trading such instruments. Banking was generally of the more “boring”, old fashioned kind! But, in the end, this did not protect the Nigerian money market. Five major channels brought the crisis home to the Nigerian money market.

First was the withdrawal of funds by some of the major financial institutions from the Nigerian money market. The general contraction of the balance sheets of the major institutions and the need to rebuild the capital base has constrained the funding available to other markets in the Nigeria economy (e.g. hedge funds) and Nigerian money market rely on dollar (or even Euro) funding. These have been the case notwithstanding the massive support injected into banking systems in the financial centers that are home to most of the major international banks. *Second* was the seizing-up of the international credit market. Credit flows through the international banks and global bond markets to Nigerian money market all but dried up. This has created significant financial stress in Nigeria money market especially with large current account deficit. However, all categories of inward flows to Nigeria money market have registered significant decline from 2007 to 2009. The cumulative declines in the major categories of flows to Nigerian money market between 2007 to 2009 are currently expected to be very large: 62 percent for international bond issues; 61 percent for commercial bank loans; and 54 percent for inward direct investment. The withdrawal of portfolio investment was a key factor behind a decline in Nigerian money market that exceeded the sharp declines in advanced money markets.

Third, was the impact of the crisis on economic activities of Nigeria. This manifested itself in a sharp contraction in exports from Nigeria to the industrial world. This fall in export – at a virtually unprecedented rate of collapse – created an internal feedback loop where the initial reduction in trade weakened the Nigeria economy, with further negative feedback on the money market sector of the financial system as the quality of credit deteriorated. *Fourth*, are the still uncertain prospect for remittances – an important source of income and foreign exchange. Like unemployment figures, remittances tend to lag the decline in economic activity – and will likely lag in the recovery. The return of workers from abroad could put additional pressure on Nigerian money market as those workers seek employment in already depressed Nigeria economy. *Fifth* and finally, is the psychological factor.

The world has become all too familiar with financial crisis. Nigerian money market is driven by confidence. These events thoroughly shook consumer's confidence, causing a self-aggravating feedback to the rest market of the economy. This experience may well affect the nature of any recovery in ways as yet not fully understood (Jack, 2009).

The general objective of this study is to investigate the effect of the global financial meltdown on the Nigerian money market. The specific objectives of this study are:

- (i) to investigate the Nigerian money market's response to the Global Financial Meltdown.
- (ii) to ascertain the relationship between Global Financial Meltdown and Nigerian Money Market indicators: treasures bills, Bankers acceptance, commercial papers and Bank Lending Rate.

The remaining sections of the paper is organized as follows; section two provides the review of related literatures, the methodologies adopted for the study were presented in section three, section four covers the result of the data analysis, while sections five, six and seven cover the summary of findings, recommendation and conclusion respectively.

2. Review of related literatures and Conceptual Framework

The global financial crises began in the United States of America and the United Kingdom when the global credit market came to a stand still in July 2007 (Avgouleas, 2008). The crisis, brewing for a while, really started to show its effects in the middle of 2008 around the world, stock markets have fallen, large financial institutions have collapsed or been brought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems. The original root of the current financial mess is in the US – the world's largest industrial complex. With an estimated GDP of \$14 trillion, the United States contributes about 25% of world output. If, as it is being forecasted, the US economy contracts by just 1%, this will imply a direct output loss of approximately \$140 billion – equivalent to the GDP of Pakistan, the 47th largest economy in the world. The crisis is not restricted to the US economy only. Financial markets have tumbled and slumped the world over, from London to Tokyo, Seoul to Sydney, Sao Paulo to Moscow, Bombay to Frankfurt etc. No economy-whether developed, emerging or developing is, so far, insulated from what Greenspan refers to as "one-in-a century credit tsunami".

The initial response of the policy makers in Nigeria was meek. Either they did not understand the crisis or underestimated its magnitude. In general, they thought of the crisis as only a 'storm in a tea cup', an aberration, a 'hiccup'. They insisted that the 'fundamentals of the financial system look impressively strong' even when the capital market and money market has been bleeding uncontrollably. The minister of national planning once stated, rather insensitively, 'there is no problem in the nation's capital market and money market. What we have presently is just corrections and adjustments... shareholders are getting dividends and bonuses and they are happy... this was at a time when market capitalization had dropped from ₦12 trillion to less than N9 trillion and all money market indicators were dipping downward. When it was finally accepted that there was a crisis, they promised to take some unspecified drastic and unusual action' to stem the global financial crisis from causing havoc in the Nigerian financial system. That initial response was, rather naïve. The country's dependence on the export sector is very significant: 99% of foreign exchange and 85% of local revenues are directly derived from activities related to export of a single commodity, which is at the centre of the current financial crises, oil. It is estimated that 58.4% of Nigeria's exports are US bound and up to 25% to the Euro zone. 67% of our non-oil exports go to Western Europe, 20% to Asia while ECOWAS accounted for only 11% in 2007. The stock of Nigeria foreign reserves is kept in European financial markets which have tumbled and banks distressed. International financial crisis which affect trade and investment flows are bound to impact on the domestic economy. The fact that the world economies are integrated financially, the global financial crisis has its effect on the Nigerian money market and Nigerian economy at large.

2.1. The Nigerian Money Market and The Global Financial Meltdown

There is no gainsaying that the global financial crisis is affecting different nations of the world including Nigeria though in different magnitudes. Worse hit are the different national financial systems that are in themselves the transmission mechanism of the crisis to other sectors of the economy by virtue of their intermediation roles. This is in agreement with Alan Greenspan (1997) assertion that the interdependence between markets and market participants within and across national boundaries will be transmitted far more rapidly throughout the World Economy. Earlier pointers to the fact that a crisis in one part of the world will reverberate strongly to others was seen in the turmoil in the European exchange rate mechanism in 1992, the plunge in the exchange value of the Mexican peso at the end of 1994 and early 1995 and the sharp exchange rate adjustments in Asian economies. In

an attempt to downplay the effects of the crisis on the Nigerian economy and so as not to cause any panic in the nation, the managers of the Nigerian money market could be more untrue even in the light of the crash in the prices of stocks in the capital market, the fall in the revenue accruing to the country from crude oil, reduction in lending to the real sector.

Also against the background of the similarities that have been drawn between the margin lending to finance the purchase of stocks in the Nigeria Stock Exchange by investors who do not have sufficient income to service the loans with the weird United States and United Kingdom mortgage lending, it is evident that the Nigerian economy cannot be totally insulated from the effects of the crisis. It is equally instructive to note that many Nigerian banks are involved in joint financing of projects with foreign banks and any crisis rocking such partners will also affect the Nigerian bank in question. Moreover some of our banks have offshore credit lines that have already been withdrawn as a result of the effect of the crisis in those foreign nations where the funds originated. Another angle to it is that Nigeria uses a lot of foreign donor partner funds to finance development projects and it is obvious that the quantum or value of such funds will fall in response to the global credit crunch

2.2. Response by Nigeria

To mitigate the adverse effects of the global crisis on Nigeria money market and economy as a whole, Nigerian government adopts the following measures

1. Presidential Steering Committee on Global Economic Crisis – January 16, 2009.
2. Presidential Advisory Team on capital market set up (August, 2008) to deliberate on measures to reserve the declining fortunes of the Nigerian capital market.
3. SEC, NSE and all capital market operators reduced fees by 50%.
4. NSE reviewed trading rules and regulations.
5. 1.0 percent maximum downward limit on daily price movement and 5.0 percent on upward movement. This has been harmonized to 5% either way from end – October, 2008.
6. SEC released guidelines/rules on market makers.
7. Strict enforcement of NSE's listing requirement with zero tolerance for infractions.
8. NSEde-listed 19 moribund companies.
9. Rules on share buy-back have been released, with a limit of 15.0%.
10. Central Bank of Nigeria reacted through the following measures:
 - (i) Reduction of MPR from 10.25 percent to 9.75 percent
 - (ii) Reduction in Cash Reserve Requirement (CRR) from 4.0 percent to 2.0 percent.
 - (iii) Reduction of liquidity ratio from 40.0 percent to 30.0 percent.
 - (iv) Directive to banks that they have the option to restructure margin loans up to 2009.
 - (v) Extended lending facilities to banks up to 360 days
 - (vi) Introduced expanded discount window facility
 - (vii) Stopped liquidity mopping-up since September 2008.
 - (viii) Financial bailout for troubled banks.

2.3 Theoretical Framework

There are many contending theories composing as possible explanatory framework of the effects of the global financial meltdown on financial markets (money market). The theories and theoretical approaches include world-systems theory (Wallerstein, 2004); Coxian critical theory and Historical Structures Approaches (Cohen, 2008); Austrian School Libertarianism (Ebenstein, 2003); Hegemonic Stability Theory (Cohen, 2008), Friedman's Quantity Theory of Money (Friedman, 2005) and Fama's Efficient Market Hypothesis (Fama, 1970). Since 1986, the monetary authorities have adopted various measures aimed at deepening the financial system and reducing the level of financial meltdown or crash in the system. In terms of flow of funds, the money market, clearly dominate and has an important impact on the level of economic development. Thus, we can make a distinction between bank based and market-based financial system. (Stiglitz 1985, Levine, 2002). These issues have been the focus of theoretical debate for decades. Attempt have also been made to examine whether one type of money market instrument better explains economic growth in a country than another. Obademi (2009) studies on the global financial crisis and solutions have concentrated on the developing economies, Nigerian, South Africa and Egypt

essentially bank based. *Arestis and Luintel (2004)* empirical studies on financial structure and its effects on economic growth was based on the developed economies, especially the United States of America and United Kingdom, which are market based and Germany and Japan essentially money market based (*Olofin and Afangideh 2008*). These studies include *Arestis et al (2001), Ndekwe (1998)* and *Weinstein and Yatch, (1998)*. The Studies above points to the fact that the financial structure is important in economic growth. As noted by *Olofin and Afangideh*, “the results based on the models of developed countries can only be used as speculation when it comes to economic policy for developing countries”. They are not likely to provide a convincing reference point for developing countries, given the differences in their level of development. Moreover critical issues on economic growth remain unaddressed. The more developed a financial system and structure, the greater the slice of returns that accrue to financial investors (*Nzotta and Okereke, 2009*).

Financial reforms have been a regular feature of the Nigerian Financial System (money market). The reforms have evolved in response to the challenges posed by developments in the system such as systemic crisis, globalization, technological innovation, and financial crisis. The reforms often seek to act proactively to strengthen the system, prevent system crisis, strengthen the market mechanism, and ethical standards. Financial reforms in Nigeria dated back to 1952 when the Banking ordinance was enacted. The deregulation of banking system in 1986 provided the impetus for the Structural Adjustment Programme (SAP). The 1986 reform of the financial system saw a policy shift from direct control to a market based financial system especially as regards monetary management, risk management and asset holding capabilities of institutions. A number of other reforms followed including the consolidation policy in banking industry in 2005 and insurance sector in 2007 (*Nzotta and Okereke, 2009*).

However, this study adopts the Hyman Minsky's financial instability theory .*Cooper (2008)* and *Minsky (1992)* asserted that the current dominant economic system is a capitalist economy with expensive capital assets and a complex, sophisticated financial structure. The capital development of a capitalist economy is accompanied by exchanges of present money for future money. Present, money finances the resources for the production of investment output. Future money is the profit that will accrue to owners of capital assets. Investment by Producers is financial through liabilities. Thus banks and financial intermediaries (money market) act as the central players. Money flows from depositors to bank, and then from banks to firms and companies needing investment financing. *McKinnon (1973)* and *Shaw (1973)* observed that financial repression (meltdown) is correlated with sluggish growth in developing economies. *Nnanna and Dogo (1998)* further asserted that such economies are characterized by high and volatile inflation and distorted interest and exchange rate structures, low savings and investments and low level of financial intermediation. Financial deepening which runs counter to financial meltdown implies the ability of financial institutions to effectively mobilize savings for investment purposes. *Nnanna and Dogo (1998)* purported that financial deepening represents a system free from financial repression (meltdown). Their findings established the fact that negative real interest rates did not encourage greater investments but rather encouraged the bank to be more risk averse and more hesitant to lend.

3. Research Methodologies

In order to ascertain the effect of the global financial meltdown on the Nigerian money market, it is imperative to employ econometric parameters. The study employs the ordinary least squares technique. This is adopted since the Gaus-Markov theorem asserted that the least squares technique is the best linear unbiased estimator, with which straight line trend equations could be estimated.

In the same trend, in order to fully appreciate the extent of the effect of the global financial meltdown on the Nigerian money market, the regression models will cover the non-crisis and the crisis periods. Financial deepening will be adopted as a proxy for financial meltdown, while the indicators of the money market (treasury bills, commercial papers, bankers acceptance, certificate of deposit, bank lending rate, and inflation) will constitute the explanatory variables. In this study, we adopted the measure of financial deepening employed by *Nnanna and Dogo (1998)* in their investigation of financial deepening function in Nigeria.

Data are sourced from secondary sources such as the Central Bank of Nigeria (CBN) and the Nigerian Stock Exchange (NSE). The sample period spans from 2000 to 2009 consisting of 40 quarterly observations for each variables.

We thus specify our regression models as follows (the two models are the same in term of specification and variables, while model I was use to test the non-crisis period, Model II was use to test the crisis period. This is to ensure effective comparism of the impact of the crisis on the Nigeria money market in the two periods).

Model I: Non-Crisis Period (2000-2005) $(M_2/GDP) = \alpha_0 + \alpha_1 TBs + \alpha_2 CPs + \alpha_3 BA + \alpha_4 CDs + \alpha_5 BLR + \alpha_6 INF + \sum_1$

Model II: Crisis Period (2006-2009) $(M_2/GDP) = \beta_0 + \beta_1 TBs + \beta_2 CPs + \beta_3 BA + \beta_4 CDs + \beta_5 BLR + \beta_6 INF + \sum_2$

Where:

M₂/GDP	Financial deepening
TBs	Treasury Bills
CPs	Commercial Papers
BA	Bankers Acceptance
CD	Certificate of Deposit
BLR	Bank Lending Rate
INF	Inflation rate
Σ_i	Error term

The appropriate signs are: $\alpha_1, \beta_1 > 0$; $\alpha_1, \beta_2 < 0$; $\alpha_3, \beta_3 < 0$; $\alpha_4, \beta_4 > 0$; $\alpha_5, \beta_5 > 0$; $\alpha_6, \beta_6 < 0$.

In the analysis, the summary statistics of the variables were examined in order to determine the normality, autocorrelation and homoscedasticity condition. The skewness statistics and the kurtosis of the summary statistics enable us to determine the normality condition while the Ljung-Box statistics Q and Q² provide tests for the presence or otherwise of autocorrelation and heteroscedasticity respectively.

Hypothesis

H_0 : the global financial meltdown do not adversely affect treasury bills, commercial papers, bankers acceptance, certificate of deposit, banking lending rate and inflation in the Nigerian money market.

4. Summary and Interpretation of the Estimated Model

Unit Root Test

The Augmented Dickey Fuller (ADF) was used to determine whether the series were stationary or not. The results of the ADF are reported in Table II, the table shows that all the variables achieved stationarity in their first difference, hence they are integrated of order 1. This suggests that in order to eliminate the possibility of spurious regression results and erroneous inferences, the first differences of the estimation process was used. The evidence suggests that first differencing is sufficient for modeling the time series considered in the study.

Empirical Results

The estimated results are presented in Table III

Model I above shows that all variables met with apriori expectation, but in model II, only inflation did. The coefficient of determination (R^2) is 0.63 and when it was adjusted for the degree of freedom, the adjusted coefficient of determination (R^2) of 0.49 was derived in model I. This means that 63% of the total systematic mean variations of the dependent variable are explained by the explanatory variables. However, in the crisis era of the global financial crisis model, the R^2 was 88.5% with an adjusted R^2 of 83%. Majority of the variables are significant. The values of model II shows a repressive effect on the depth of financial development during the crisis period as seen by reverse signs in the coefficients. Furthermore, the F-statistic of both models are significant, showing that none of the estimated coefficient is equal to zero and there is a linear relationship in both models. Our results show that prior to the global financial meltdown, financial deepening affects the values of treasury bills, certificate of deposit and bank lending rate positively, while inflation, commercial papers and bankers acceptance were negatively affected. However, it was the reverse in the crisis period except that inflation retains its negative sign. A possible explanation for this retention is the ever increasing commodities prices in the Nigerian economy. Increased prices have spilled through the various sectors and continue to affect the money market indicators. From table III, it can be seen that in the non-crisis era (2000-2005), the explanatory variables all met apriori expectations. However, in the crisis era, only the coefficient of inflation retained its apriori sign. This implies that economic activities were adversely affected by the global financial meltdown as seen in the adverse effect on financial deepening. This in turn has a corresponding effects on the Nigerian money market, thus dis-stabilizing its indicators.

Robustness Test

In order to ascertain the reliability of the regression models, we carryout robustness test on the models. The results are presented in Table IV. The table shows the summary statistics and the standardized residuals for the models Q() is the Ljung-Box Q-statistics for the presence of autocorrelation and Q²(,) is the squared Ljung-Box Q-Statistics for the absence of heteroskedasticity. P-values are in parentheses and JB is the Jarque Berra test for normality. The table shows the descriptive statistics of model I and II. Both models possess a positive standard deviation. The skewness in the two models are positive. In the same vein, there exists a leptokurtic relationship in the models as seen in the

Kurtosis values of both models. However, model II is an improvement over model I. The standard deviations and kurtosis are lower. Its skewness declines while its kurtosis is less than that of model I. The Jarque-Bera test statistics of model II indicate that non-normality is improved in the model. The Q statistics for the absence of autocorrelation is statistically significant indicating that the equation is correctly specified. Thus, the model adopted is well specified and can be used for policy analysis and implementation.

Policy Implication

For the above models, financial deepening implies the ability of financial institutions (for example money market) to effectively mobilize financial resources. In other words, financial meltdown contrasts with financial deepening. A priori money supply to Gross Domestic Product Ratio is positively related to Treasury Bills, negatively related to commercial papers; negatively related to Bankers Acceptance; positively related to certificate of Deposit; positively related to Bank Lending Rate and negatively related to inflation Rate. Explicitly, apriori $\alpha_1\beta_1>0$; $\alpha_2\beta_2<0$; $\alpha_3\beta_3<0$; $\alpha_4\beta_4>0$; $\alpha_5\beta_5>0$; $\alpha_6<0$. From table III, it can be seen that in the non-crisis era (2000-2005), the explanatory variables all met apriori expectations. However, in the crisis era, only the coefficient of inflation retained its a priori sign. This implies that economic activities were adversely affected by the global financial meltdown as seen in the adverse effect on financial deepening. This in turn has corresponding effects on the Nigerian money market, thus destabilizing its indicators. From the analysis above, it is evident that there is relatively a low level of deepening of the financial market in Nigeria during the period of the study. This basically is caused by the global financial meltdown that existed during the crisis period under study.

5. Summary of Findings

This study seeks to find the effect of global financial meltdown on the Nigerian Money Market. Hence, the Nigerian money market and financial meltdown which contrasts financial deepening (money supply (MS_2) to Gross Domestic Product (GDP)] and other related conceptual issues were the main focus of the study. The first finding of this study is that the initial response by the policy makers in Nigeria was meek. Either they did not understand the crisis or underestimated its magnitude. In general, they thought of the crisis as only a ‘storm in a tea cup’s an aberration, a ‘hiccup’. They insisted that the ‘fundamentals of the financial system look impressively strong’ even when the capital market and money market has been bleeding uncontrollably. The economy could slow down to a level that would take several years to achieve recovery before we can reasonably expect growth to resume. Unless a quick fire happens somehow for the crisis in the Nigerian money market and the broken confidence in the market, the economic growth and development prospects for the nation in future are clouded. The present state of the money markets therefore poses more threat to the well being of the economy and its development aspirations than the state of physical infrastructures. From the data analyzed on the response of Nigerian money market [Treasury Bills, Commercial Papers, Banker Acceptance, certificate of Deposit, Bank Lending Rate, and inflation rate] and global financial meltdown [money supply MS_2] and Gross Domestic Product (GDP)] which is in contrast of financial deepening; it was discovered through the use of econometric techniques that the global financial meltdown has negatively affected the Nigerian money market, since there is an absence of financial deepening. This can be attributed to the failure of the Nigerian money market to fulfill its primary responsibilities of supplying needed funds to areas where such fund are needed during the period of global financial crisis. The empirical analysis however revealed that prior to the global financial meltdown, financial deepening affects the values of treasury bills, certificate of deposit and bank lending rate positively, while inflation, commercial papers and bankers acceptance were negatively affected. However, it was the reverse in the crisis period except that inflation retains its negative sign. A possible explanation for this retention is the ever increasing prices in the Nigerian economy. Increased prices have spilled through the various sectors and continue to affect the money market indicators with the slow down of money supply for investment and economy development.

6. Recommendation

Results obtained from this study confirm the effect of the global financial crisis on the Nigerian money market. The money market which provides quick and dependable transfers of short-term debt instruments maturing in one year or less, which are used to finance the needs of consumers, business, agriculture and the government cannot be financed by capital market. Nigerian money market operators that have returned to normal lending position is a big plus for the economy. The improvement in returns prospects, which the development implies is the signal that the money market is waiting to rebuild short term loans. It is suggested that financial market regulators should therefore act quickly to set the process of bank bonds issue in motion, as a key strategic step to strengthen both the money market and capital market. It is suggested that the procedures for handling a systematic crisis or failure by all the Nigerian money market operators should be drawn up promptly in preparation for contingencies. Government funds should be used only to protect the safety and functioning of the money market. When a banking problem arises, the

authorities should first assess whether the institution is suffering liquidity or a solvency problem and what the systemic implications of failure would be. Individual banks facing solvency problems should receive support when their failure would threaten overall Nigerian money market stability either directly or because, in the judgment of the authorities, their failure would undermine market confidence. Public funds should be provided transparently and with a view to minimizing moral hazard. Moreover, it would be useful for assistance to be provided in ways that allow the public sector to benefit if asset prices recover.

Monetary authorities should identify money market vulnerabilities. For this, they should first identify the banks that are most likely to experience difficulties in the current environment. Banking supervision should also insist on high-frequency data to continually assess bank liquidity and solvency and conduct credit risk diagnostics and stress testing. Supervision should be as comprehensive as possible, covering foreign currency risk management practices, lending standards and funding reliability. It should extend to all deposit-taking and creations, including non bank money market operators. The empirical analysis adopted in this study used financial deepening as a proxy for Global financial meltdown to achieve the major objective of this study due to non-availability of financial crisis data. This although did not jeopardize the relevance of the study in any way, but it is hereby recommended for other researchers to further expand the scope of this study in the near future to actually use financial meltdown data when they are available to measure the effect of global financial meltdown on Nigerian money market.

7. Conclusion

The recent financial crisis that affected the major economies of the world particularly the capital market and money market has opened a new debate on the effectiveness of existing financial sectors regulations. The Nigerian money market is adversely affected by the global financial crisis that was associated with banking panics, and many recessions coincided with these panic. These have created loss of confidence to the individuals and business investors on the Nigerian money market institutions. The less able banks under the Central Bank's bailout will need more time to let confidence return to the money market and permit new dealings. The Central Bank could prop up that confidence by permitting them to spread the provisions for credit losses over a three - year period. This will create a favourable environment to induce a recovery in asset values and ultimately reduce actual provisioning requirements. It will afford these money market operators the opportunity to regain respect and confidence in the money market and therefore the ability to undertake recapitalization on their own. The Nigerian money market occupies a crucial place in the nation's development aspirations and it has recorded impressive growths over the years. The central bank of Nigeria is concerned by macroeconomic stability, maintenance of financial stability of the economy and ensuring the proper functioning of the monetary economy (payment and settlement systems). The government is presently using fiscal policies to ease the pressure of the financial crunch. To match the efforts, the central bank of Nigeria has put in place several measures to enable the country cope.

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Appendices

Table I. Money Market / Regression Data

QTRS	BA	BLR	CDS	CPS	INFL	M2/GDP	TBS
2000Q1	6562.6	12.73	4506.3	8934.3	14.3	12.93	20137.4
Q2	7514.4	12.47	4567.36	8977.26	5.87	13	19585.52
Q3	8443.9	10.86	4585.68	9061.28	15.51	13.13	19685.89
Q4	10988.1	10.72	4561.25	9186.37	14.52	13.3	21634.89
2001Q1	12521.8	12.67	4494.08	9352.52	18.2	13.53	22561.23
Q2	13934.1	13.87	4384.16	9559.74	16.06	13.5	23661.29
Q3	18676.3	17.27	4231.5	9808.03	19.11	13.42	24935.06
Q4	23249	19.21	4036.09	10097.38	16.5	13.67	27075.84
2002Q1	23801.3	20.07	3705.72	10455.19	17.38	13.73	28419.71
Q2	29661.2	16.92	3461.7	10815.71	12.22	13.42	29659.98
Q3	37738.2	15.53	3211.82	11206.34	9.97	12.84	30796.64
Q4	55116.8	14.29	2956.09	11627.08	12.19	12.24	28593.52
2003Q1	85027.9	13.78	2530.02	12147.93	5.86	6.83	30817.43
Q2	70395.9	14	2328.35	12600.88	14	6.04	34232.2
Q3	70157	14.86	2186.6	13055.94	18.35	7.6	38837.83
Q4	66389.5	14.59	2104.79	13513.1	23.79	8.21	49938.8
2004Q1	63006.4	15.6	2119.34	14174.99	22.5	9.31	54804.35
Q2	68916.3	13.09	2142.79	14555.31	14.07	10.24	58738.96
Q3	71075.9	13.16	2211.6	14856.69	9.1	10.4	61742.64
Q4	70741.4	13	2325.75	15079.12	10.01	10.48	63180.54
2005Q1	77752.5	12.44	2546.85	14213.23	16.3	12.73	64576.28
Q2	83495.2	11.38	2727.06	14681.53	18.6	14.07	65295.02
Q3	90342.1	9.44	2927.97	15474.64	24.3	13.9	65336.77
Q4	94614.1	8.88	3149.58	16592.55	11.6	12.73	29158.72
2006Q1	97431.1	9.73	2927.97	18423.06	12	12.47	28819.49
Q2	42097.6	10.25	3149.58	20035.48	8.5	10.86	28315.9
Q3	50021.3	9.73	3503.96	21817.59	6.3	10.72	27361.38
Q4	59081.2	10.25	3722.16	23769.4	8.5	12.67	25955.93
2007Q1	59003.4	8.78	2487.9	249738.9	5.2	35.34	660742.2
Q2	80537.1	9.85	5237.9	329589.7	6.4	35.83	777617.4
Q3	81821.3	9.69	2487.9	311314.5	4.1	32.78	1059423.4
Q4	81834.1	9.62	2497.9	363369.5	6.6	31.81	1264274.9
2008Q1	154573	10.18	3916.25	533964.9	7.8	56.3	574929.4
Q2	153686	11.68	4086.22	620591.6	12	52.68	574929.4
Q3	127529	13.15	3901.08	697527.6	13	48.78	471929.4
Q4	66398.7	12.7	4155.21	834592.5	15.1	46.87	471929.4
2009Q1	66513.3	12.5	4517.62	836251.2	14.4	60.6	574929.4
Q2	67815.4	13.62	4988.3	822691.3	11.2	56.12	574929.4
Q3	67993.7	13.63	4977.31	821632.1	12.46	56.12	574929.4
Q4	67099.9	12.52	4923.97	822174.8	13.44	56.14	574929.4

Table II. Augmented Dickey Fuller unit Root Test

Variable	ADF	Mackinnon Stat.	Order of integration
D(BA)	-4.591078***	-3.6171	1
D(BLR)	-3.475791**	-2.9422	1
D(CDS)	-6.093067***	-3.6171	1
D(CPS)	-3.537795**	-2.9422	1
D(INFL)	-4.362147***	-3.6171	1
D(M ₂ /GDP)	-6.012292***	-2.9422	1
D(TBS)	-3.876560***	-3.6171	1

NOTE: *, ** and *** indicate the variables are statistically significantly at 10%, 5% and 1% respectively.

Source: Author's computation.

Table III. Global Financial Meltdown and Money Market Indicators.

Dependent variable: D(M₂/GDP)

Variable	Model 1 (Non-crisis Era)	Model 2 (Crisis Era)
Constant	0.858828 (2.3810)	-0.012706 (-0.0114)
D(BA)	-7.93E-05 (-2.4640)	0.000142 (2.7927)
D(BLR)	0.480651 (3.0690)	-1.427683 (-1.1937)
D(CDS)	0.003598 (2.4698)	-0.000782 (-1.5517)
D(CPS)	-0.001060 (-1.4351)	6.25E-05 (6.5759)
D(INFL)	-0.133951 (-2.4846)	-0.066940 (-2.2628)
D(TBS)	4.21e-05 (1.2333)	-1.64E-06 s(-3.2500)
R-Squared	0.632920	0.0877894
Adj. R-Squared	0.495265	0.832105
F-Stat	54.59785	69.17233
Durbin Watson. Stat	1.972098	2.173768

Source: Author's Computation

Table IV: Robustness Test

	Model 1	Model 2
Mean	-0.022	-0.004
Standard dev.	2.474	2.319
Skewness	0.621	0.051
Kurtosis	4.07	3.05
Q ₁	0.365 (0.263)	0.827 (0.615)
Q ₁₂	8.06 (0.521)	6.390 (0.745)
Q ¹ ₂	0.139 (0.300)	0.062 (0.516)
Q ¹ ₁₂	3.372 (0.761)	5.113 (0.620)
JB	2.217 (0.427)	2.548 (0.453)
ARCH TEST		
F-Stat	11.53244 (0.028)	0.23453.7 (0.633)
Obs *R-Squared	8.046116 (0.004)	0.255001 (0.614)

Source: Author's Computation