

The Role Of Regulatory Credibility In Effective Bank Regulation

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ABSTRACT

Regulatory credibility is an important framework for effective bank regulation in any financial system. It stimulates not only efficient roadmap for banking industry regulation but for effective supervision. The study contributes to the existing literature by investigating the role of regulatory credibility in effective bank regulation in Nigeria using *ex post facto* research design to ascertain the direction of causation between assets quality of banks, capital adequacy of banks and liquidity of banks in Nigeria from 2005 to 2010. The results from the Granger casualty test depicts that there is no direction of causation between assets quality of banks, capital adequacy of banks and liquidity of banks in Nigeria within the period under review while the direction of causation between capital adequacy and liquidity is unidirectional within the period under review. Base on the findings, the researcher recommends that regulatory authority should often review their regulatory and supervisory framework to ensure that its policy is always in tandem with international best practices to reduce insider abuse especially in the area of credit risk, market risk and operating risk to mitigate the banking menace of high incidence of nonperforming loans by boosting their assets quality. Banks minimum capital base should be reviewed often at least twice per decade, this will enhance their capital adequacy and reduce the over dependence of the banking sector on the customer's deposits in Nigeria.

Keywords: regulatory credibility, effective bank regulation, Basel accord, nonperforming loan.

INTRODUCTION

The theory of regulation highlights the reasons why banks are the most regulated institution in global financial system. Financial crisis prompted re-examination and reformations of regulation, leading to new rules, the restructuring of regulatory authorities, and changes in international standards (Rawling, Georgosouli and Russo (2014)). Allen, Carletti and Babus (2009) posit that exceptional global turbulence has turned attention to the need to promote more robust and stable financial markets especially the developing economies that has perfect positive correlation with contagious effect of global economic recessions emanating from their trading partners that are mostly the developed economies. Because of its contagious effect on the macro-economy, effective regulation gives financial market players the supervisory incentives to behave well and this call for credibility in regulation. According Dasgupta (2004), various regulatory framework has been advocated by the monetary authorities and international bodies such as the Basel accords and other macro-prudential guide lines to ensure effective bank regulation through regulatory credibility in the financial system. In Nigeria, the banking industry has witnessed numerous restructuring especially the 2005 and 2010 respective bank consolidation and recategorization exercise which seems to be the most plausible reforms that attained the global standard in the banking industry. But the stability and soundness of these frontline players (banks) in the Nigerian financial system are not totally restored, there had been incessant banks distress, high incidence of nonperforming loans, unseasoned merger and acquisition of banks and the resultant effect on the customer's confidence and the macro-economy is grossly

inadequate. Consequently, the paper sought to investigate the role of regulatory credibility in effective bank regulation adopting *ex post facto* research design and granger causality as econometric technique to test the direction of causation between the assets quality, capital adequacy and liquidity of banks in Nigeria from 2005 to 2015.

REVIEW OF RELATED LITERATURE

Conceptually, the role of regulatory credibility in effective bank regulation makes policy framework of bank regulations attainable and sustainable because the financial system especially banks is prone to period of instability. Zhou (2010) asserts that the risk measurement problem has been the primary failure of banking regulation. In recent years, a number of financial crisis around the world emanated from mass failure of banks. Some argue that this suggests a case for more effective regulation and supervision. However banks are political and economic sensitive and largely relies on public confidence because of the nature of their activities, banks are more prone to panics than any other firm in the financial system. Uremadu (2013) posits that the interconnectivity of banks in the modern economy makes the adverse effect of its failure contagious which poses systemic risk. The banking industry strongly supports transparency and efficient financial markets that operate with integrity and where regulators' promulgates the rules and have supervisory and enforcement tools they need to maximize regulatory efficient. We believe that public authorities and market participants, whether investors, issuers, or intermediaries, all share common objectives of financial stability, liquidity, market confidence and the efficient allocation of resources. These objectives

can best be achieved by enhancing the stability and soundness of the financial system as well as the systemically important firms, restoring normal market operation with the need for public sector support as soon as feasible, enhancing the tools and infrastructure for policy makers and regulators on timely basis, to coordinate, cooperate and share information globally which enables early identification of possible future problem in financial markets, while maintaining enough flexibility to adapt to unforeseen events, ensuring that regulation promotes fair dealings, enabling investors to meet their needs and issuers to secure access to capital and funding at reasonable cost. Regulators have resources and expertise to supervise complex markets and products, encouraging consistency of outcome in relation to these objectives from country to country. A robust institutional infrastructure is a vital starting point in the regulatory arena. Enforcement of laws is essential to ensure credibility of institutional arrangements (Wagner, 2010). According to Liewellyn (1999), the main reasons for financial sector regulation includes to ensure systemic stability, to provide retail clients with protection and to provide consumers against monopolistic exploitation.

Basel accord as the credible regulatory framework for effective bank regulations Following the persistent banking crisis and the critics that surrendered the Basel accord of 1988 (Basel I) on its inability to recognize any other risk other than credit risk, Basel II of 1999 incorporated both market risk and operating risk. However, the need for a fundamental strengthening of the Basel II framework because of the global financial crisis of 2007-2008 from the banking sector with too much leverage and inadequate liquidity buffers accompanied by poor risk managements and poor cooperate governance as well as inappropriate incentive structures demonstrated by the mispricing of credits and liquidity risk and excess credit growth. Some argue that the crisis demonstrates weakness in the framework, others criticized it for actually increasing the efforts of the crisis. Responding to these risk factors, the Basel committee on banking supervision (BCBS) issued principles for sound liquidity management and supervision in July, 2009. The committee issued a further package of documents to strengthen the Basel II capital framework notably with regards to the treatment of certain complex securitization positions, off balance sheet items and trading book exposures. This enactment was part of the broader effect to strengthen the regulation and supervision of international active banks in the light of weaknesses to the financial market prices. In September, 2010 the group of governors and heads of supervision announced higher global minimum capital standard for commercial banks following an agreement reached in July, 2009 regarding the overall design of the capital and liquidity standard reform package called "Basel III" in November, 2010. The new capital and liquidity standard which was endorsed at the G20 leaders' summit in Seoul (South Korea) and subsequently agreed at the December 2010 Basel committee meeting. The proposed standard was issued by the committee in the mid December 2010 and has been subsequently revised which was set out in the Basel III version. International framework for liquidity risk measurement, standard and monitoring, Basel III as a global regulatory framework for more resilient banks and banking system. The enhanced Basel framework revised

and strengthens the three pillars established in Basel II as well extended the framework with several innovations namely:

1. An additional layer of common equity: conservation of capital buffer that when breached restricts payout of earnings to help protect the minimum common equity requirements.
2. A counter cyclical capital buffer which places restrictions on participation by banks in system wide credit booms with the aim of reducing their losses in credit busts.
3. A leverage ratio: a minimum amount of loss absorbing capital in relations to all bank's assets and off balance sheet exposures regardless of risk weighting defined as Capital measures.
4. Liquidity requirements: a minimum of liquidity ratio, the liquidity coverage ratio (LCR) intended to provide enough cash to cover funding needs over a 30 day period of stress and a longer term ratio, the net stable funds ratio (NSFR) intended to address maturity mismatch over the entire balance sheet and
5. Additional proposals for systematically imported banks including requirements for supplementary capital, augmented contingent capital and strengthened arrangements for cross boarder supervision and resolutions. In January, 2012 the Governors and Heads of supervisions (GHOS) endorsed a comprehensive process proposed by the committee to monitor member's implementations of Basel III. the Regulatory Consistency Assessment Program (RCAP) consist of two distinct but complementary work streams to monitor the timely adoptions of Basel III standard and to assess the consistency and completeness of the adopted standard including the significance of any deviation in the regulatory framework. The Basel committee which works in collaboration with the financial stability Board (FSB) gave the FSB roles in coordinating the monitoring of the implementation of reforms. In line with this global trends and as part of the reforms to foster financial stability, the Central Bank of Nigeria (CBN) and Nigeria Deposit Insurance Corporation (NDIC) developed framework for the regulation and supervision of domestic systemically important Banks in Nigeria. The framework specifies among others, the assessment methodology for identifying the Systemically Important Banks (SIBs), higher loss absorbency (HLA) of minimum capital ratio (CAR) 15% out of which Tier 2 capital should not constitute more than 25% of the qualifying capital. In other words, tier 1 capital should be at least 75% of the banks qualifying capital and additional capital surcharge of 1% to their respective minimum required capital adequacy ratio (CAR) which should be met with common Equity Tier1 (CET1) capital. The aim of the additional loss absorbency requirement is to ensure that the systemically important Banks have a higher share of their balance sheet funded by instruments that re-enforces the resilience of the institutions as a going concern. Other additional regulatory requirements include liquidity, stress testing, disclosure and reporting requirements (CBN, 2014).

THEORETICAL FRAMEWORK

Deductions from theoretical and empirical literatures have vividly evidenced the role of regulatory credibility in

effective bank regulation in the global financial system due to the pivotal role bank plays in every economy. There are three main theories of regulation in relation to the numerous banking theories. The welfare theoretic or public interest theory by Pigou (1938) states that regulation is provided in response to the demand of the public to the correction of inefficiencies in the market services and activities, this theory known as the helping hand theory of regulation also assumes that unregulated institutions often fails due to market externalities. According to Tadesse (2006), public regulation is justified by market failure that can result from (i) the presence of market power, (ii) the importance of externalities and (iii) asymmetric information. Captured or personalized theory by Stigler (1971) states that regulation is designed and acquired by the industry primarily for its benefits. While contract theory by Coase (1960) posits that any problem banks face has third party consequences because banks are dealers in debts and there are needs for regulation. However, (Casu, et al., 2006) in (Uremadu, 2013) assert that there are five theories that explains why financial intermediation (other wise called banking) exists. These theories relates to delegated monitoring, information production, liquidity transformation, consumption smoothing and the role of banks as a commitment mechanism. In this study, the researcher expands these theories to incorporate assets transformation theory, maturity transformation theory and agency theory.

Theory of Banks and Assets Transformation

The theory of banks regulation states that banks are vulnerable to panics and are highly contagious. This theory explains why banks are the most regulated financial institution because it deals with the customer's confidence. The benefit made possible by the low transaction cost of banks is that they can help in reducing the exposure of investors to risk about the returns investors will earn on assets. The Financial intermediary reduces this uncertainty of investment returns through the process known as risk sharing (Minhkin and Eakins, 2009). Bank creates and sell assets with risk characteristics that people are comfortable with and then use the funds they realized by selling these assets to purchase other assets that may have far more risk. Low transaction cost allows banks to share risk at low cost, enabling them to earn profits on the spread between the returns they earn on risky assets and their payments on the assets they sold. This process of risk sharing is called assets transformation (risky assets are turned into safer assets for investors). A financial market also promotes risk sharing by helping individuals or organizations to diversify and thereby lower the magnitude of risk to which they are exposed (Minhkin and Eakins, 2009). Diversification entails investing in a collective (portfolio management) of assets whose returns varies with the result that average risk is lower than the aggregate risk of individual assets. A lower transaction cost allows financial intermediaries to actualize this by pooling a collection of assets into a new asset and then selling it on individual basis. A financial intermediary also transforms assets with short or medium term tenor into long term tenor due to non- correlation between the maturities of different assets. Therefore, financial intermediary's services long term assets with short or medium term assets due to maturity mismatch of different

assets. This corroborates the Harrod-Domar Growth theory of 1946 which demonstrates that financial development and efficiency are reflected in loans-deposits rate spread, the model also predicts that the growth rates are positively correlated with loan spread. But some argue that government intervention can severely affect efficiency of financial intermediaries and economic growth which can alter this correlation. The stages of growth theory propounded by an American economic historian, Rostow (1960) as cited in Sanusi (2010) concurs with the Harrod-Domar growth theory which demonstrates the mechanism through which finance is mobilized from the surplus sector (savings) to the deficit sector (lending) by means of investment activities which in turn influences economic growth.

Liquidity Transformation Theory by Beninvenga and Smith (1991)

Financial intermediaries can substantially reduce transaction cost because they have developed expertise in lowering them and because their large size allows them to take advantage of economies of scale, the reduction in the transaction cost per a transaction as the scale of transaction increases. Because, financial intermediaries are able to reduce transaction cost substantially, they make it possible for depositors to provide funds indirectly to borrowers for investment opportunities. In addition, financial intermediaries reduces transaction cost means that they provides its customers with liquidity services, services that easily facilitates the transaction cost in the conduct of customers business. For instance, banks provides customers with checking accounts that enable them to pay their bills easily, depositors can as well earn interest on different accounts and convert them into goods and services when necessary. This theory stresses that efficient financial intermediation stimulates savers to hold their wealth increasingly in productive assets contributing to productive investment and stimulates economic growth. Against this backdrop, financial institutions deposits can be seen as credit agreements that present high liquidity and low risk assets. Nwude (2004) posits that liquidity intermediation is the process of turning assets deposits of depositors into cash within a short space of time without losing much value and loaning funds to borrowers as and when due at reduced cost.

Delegated Monitoring Theory by Diamond (1984)

One of the most known theories that explained the existence of banks and other financial institutions as well as their activities and interactions described the banking role as an entity that follows and verifies debtors. Because the monitoring of credit risk determines by the debtors inability or bad faith is costly and has economic chain reactions. The theory posits that it is more efficient for the commissioning unit (depositors) to delegate this monitoring function to some specialized entity (financial institutions) because they have the expertise and enjoys the economies of large scale in processing information's on credit risk. The theory emphasizes that financial institutions especially banks have net comparative advantage on cost of transactions in relation to direct financing. The theory developed two premises, first was on the diversity of investment projects which explains

the advantages of delegated monitoring by financial intermediaries than by individual creditors. Secondly, the financial intermediaries that performs the delegated monitoring function of debtors have large components that enables them to finance more number of debtors considering the fact that diversification leads to increase in credit strength of financial institutions. This entails that financial intermediary due to their large scope facilitates portfolio investments and managements than any individual creditor. Diamond (1997) investigates the determinants of delegated cost and developed a theoretical model in which financial intermediary has cost savings relative to direct lending and borrowing. Diamond approach is essentially developed around two inter-connected factors: (i) Diversification among different investment projects (portfolio management). This was carried out in an explanation of the benefit from delegation of monitoring to an intermediary that is monitored by its depositors and (ii) The side of the delegated intermediary that can finance a large number of borrowers since usual diversification will increase with the number of credit lines, intermediaries will generate higher economies of scale in monitoring which will allow for a greater portfolio investment than any individual lender can achieve.

The Agency Theory by Stigitz and Weiss (1981).

The theory stresses that the importance of perfect information in financial market and its effect on the overall allocation of resources and economic growth are enormous. The theory emphasizes the presence of transaction cost in financial system which explains partly why financial intermediaries plays significant role in the financial system, one party often has less information about the other party to make accurate decisions. This theory further enumerates the adverse feedback effect of adverse selection and moral hazard as the problem created by asymmetric information before the transaction occurs and after the occurrence. Adverse selection in the financial markets occurs when the potential borrowers who are the most likely to produce an undesirable (adverse) outcome (that is the bad credit risk) are the ones who actively solicits for loans and are likely to be selected. As a result, it is most likely that loans might lead to bad credit risk, lenders might decide not to grant loans even though there are good credit risk in the marketplace. However, moral hazard as the problem created after the transaction occurs. Moral hazard in the financial system is the risk (hazard) that the borrower might engage in activities that are undesirable (immoral) from the lenders point of view because they make it less likely that the loan will be repaid back. Because moral hazard lowers the probability that the loan will be repaid, lenders may decide that they would rather not grant the credit facilities. These theories highlight the significance of banks in any economy and therefore, the need for credible regulations to ensure effective regulation and supervision.

EMPIRICAL REVIEW

There are many existing Empirical framework on banks regulation. Clark and Jokung (2015) examines the role of regulatory credibility in effective bank regulation, the study developed a model of regulated Brownian motion with an

endogenous profit term to analyze the role of regulatory credibility on the stability and productivity of the banking system. The finding reveals that perfect credibility can actually reduce the volatility of intrinsically risky banking system below the volatility of less risky system as banks anticipate intervention and mitigates their investment behavior accordingly. Uramadu (2013) investigates the effect of financial intermediation and government regulation on financial deepening in Nigeria using time series data and Ordinary Least Square (OLS) regression method. The study shows that bank regulation by government proxied by total balances with the Central Bank of Nigeria lead to financial deepening in Nigeria. Allen, Goldstein, Jagtiani and Lang (2014) study on enhancing prudential standard in financial regulation discussed the impact of increasing public disclosure of supervisory information, the effectiveness of bank stress testing as a tool to enhance financial stability, whether the financial crisis was caused by too big to fail (TBTF), and whether the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA) resolution regime would be effective in achieving financial stability and ending TBTF. The finding shows that large banks that failed during the crisis often met the regulatory requirements of “well capitalized” and rated higher than satisfactory by bank regulators in the year prior to their failure. Clearly, the regulatory system failed to maintain sufficient capital in the system to prevent the collapse of the financial system. Dermine (2013) study on the Bank Regulation after the Global Financial Crisis: Good Intentions and Unintended Evil. The study analyzed the impact of the capital and liquidity regulations and call attention to the fact that bank responses might create unintended evil: a reduced supply of bank loans, incentives to securitize assets and adverse incentives on bank risk monitoring. The conclusion of the study was that privately based mechanisms that put most creditors at risk are the best way to increase the soundness of banking markets. The researcher argues that interbank debt should be put at risk because banks have a comparative advantage in risk monitoring. Myerson (2013) study on the Rethinking the Principles of Bank Regulation: a review of Admati and Hellwig's *Bankers' New Clothes*. The research raises broad critical questions about bank regulations. These questions were reviewed and discussed with focus on how the problem of maintaining a stable financial system depends on fundamental problem of information and incentives in financial intermediation. The researcher argues that financial regulation can be reliably effective only when their basic principles are understood by informed citizens and that Admati and Hellwig's book is a major contribution towards this goal, as it clearly laid out the essential case for requiring banks to have more equity. However, Wilf (2013) study on the credibility and distributional effect of international banking regulation: evidence from US bank Stock returns. The study examined whether Basel III, an international agreement negotiated by the bank regulatory network about bank minimum capital in 2009 and 2010 was viewed as credible using stock returns to measure investors' perceptions and an event study methodology to test whether regulated banks' observed stock returns significantly deviated from expected stock returns on days when new information about Basel III becomes available. The direction of the deviation on

whether regulation benefits or hurt banks. While the direction of deviations is not uniform across events, the initial stock returns reaction and the net deviations across all events are negative, indicating that US banks were not helped by new international regulatory roadmap. Further, US banks experienced stock returns that deviate from expectations, providing evidence that international regulatory network agreements are viewed as credible and tangibly independent of domestic implementation. Quintyn and Taylor (2002) study on regulation and supervisory independence and financial independence. The result shows that lack of proper independence from the political influence is an important contributing factor in all event of systematic banking crisis. The study recommends the need to achieve independence for regulatory and supervisory functions. Balleisen and Moss (2009) research on the topic "Government and markets: toward a new theory of regulation: The Tobin Project". The research represents an attempt by concerned academics to begin moving beyond old ideas about regulation. Very old ones that informed earlier round of regulatory activity as well as more recent ones that drove a wave of deregulation beginning in the late 1970s. The result reveals that new regulatory initiatives are informed by past experiences.

Methodology and Data Analysis

The paper sought to investigate the role of regulatory credibility in effective bank regulation adopted *ex post facto* research design and granger causality as econometric technique to test the direction of causation between the assets quality, capital adequacy and liquidity of banks in Nigeria from 2005 to 2015. The model was specified as: Assets Quality (AQB) is function of capital adequacy (CAR) and liquidity (LR) of banks in Nigeria.

$$Y = f(\beta_0 + \beta_1 x_1 + \beta_2 x_2 + u_t)$$

Where:

Y = Assets Quality of banks

b_0 = base constant

$b_1 - b_2$ = coefficients

x_1 = capital adequacy ratio of banks

x_2 = liquidity ratio of banks

u_t = error term

The result of the Unit Root Test reveals that the variables attained stationarity at 1%, 5% and 10% critical values for the whole variables. All the variables are integrated at the same order. In other words, they attained stationarity at first difference 1(1). ADF Test Statistic value is less than the critical values and the probability value is also less than one (1) for each of the variables tested, which is a confirmation of their stationarity. Moreover, to confirm the reliability of these results, the Durbin-Watson statistic value at each point is very significant at either 2.00 or approximately 2.00. This also indicates the absence of traits of autocorrelation in the time series data.

Table 3.1: E-VIEWS Results of the granger causality test.

Pairwise Granger Causality Tests

Date: 07/18/16 Time: 16:49

Sample: 2005 2015

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
CAR does not Granger Cause AQB	10	0.88469	0.3782
AQB does not Granger Cause CAR		0.54525	0.4843
LR does not Granger Cause AQB	10	0.15671	0.7040
AQB does not Granger Cause LR		0.46448	0.5174
LR does not Granger Cause CAR	10	3.64446	0.0979
CAR does not Granger Cause LR		27.2191	0.0012

From the table 3.1 above, the granger causality test indicates that Capital Adequacy Ratio of Banks (CAR) does not granger cause Assets Quality of Banks (AQB) with f-statistic = 0.88469 and p-value = 0.3782 > 0.05. This implies that capital base of banks does not guarantee banks stability in the period under review. Also as indicated from the table 3.1 above, Assets Quality of Banks (AQB) does not granger cause Capital Adequacy Ratio of Banks (CAR) with the f-statistic = 0.54525 and p-value = 0.4843 > 0.05. This indicates that the assets quality of banks does not stimulate adequate capital of banks within the period under review. This result implies that there is no direction of causation between assets quality of banks and its capital base in Nigeria.

From the same 3.1 above, the result of the granger causality test indicates that liquidity ratio (LR) does not granger cause Assets Quality of Banks (AQB) with the f-statistic 0.15671 and p-value of 0.7040 > 0.05. This indicates that the liquidity of banks does not demonstrate bank's solvency for the period under investigation. The result also reveals that Assets Quality of Banks (AQB) does not granger cause liquidity ratio (LR) of banks in Nigeria with f-statistic = 0.46448 and p-value of 0.5174 > 0.05. This shows that solvency of banks does not stimulate its liquidity. These results indicate that there is no direction of causation between liquidity and solvency of banks in Nigeria within the period under study.

As depicted from the same table 3.1 above, the result of the granger causality test indicates that liquidity ratio (LR) does not granger cause Capital Adequacy Ratio of Banks (CAR), the f-statistic = 3.64446 and p-value of 0.0979 > 0.05. This proves that liquidity of banks does not indicate Capital Adequacy of banks in Nigeria within the period under examination. The result also shows that Capital Adequacy Ratio (CAR) granger cause liquidity ratio (LR) of banks with the f-statistic = 3.64446 and p-value of 0.0012 < 0.05. This reveals that Capital Adequacy of banks stimulates the

liquidity of banks in Nigeria within the period under review. This result also indicates unidirectional causality between Capital Adequacy and liquidity of Banks in Nigeria.

CONCLUSION

The study as one of the empirical investigations of role of regulatory credibility in effective bank regulation has provided an understanding of the effect of efficient regulatory framework on the banking system regulation and supervision in Nigerian. Findings from the study have shown that there is no directional of causation between capital base and assets quality of banks as well as between liquidity and solvency of banks in Nigeria. This was supported by the banks' panics of 2010/2011 in Nigeria that led to the five hundred billion (₦ 500bBn) bailout fund by the Central Bank of Nigeria (CBN) and the subsequent acquisition of the most distressed banks by the Assets Management Company of Nigeria (AMCON) few years after the banks consolidation exercise of 2005 and incessant merger and acquisition of banks after the 2010 bank recategorization. While the direction of causation between capital base and liquidity of banks in Nigeria is unidirectional within the period under review. This was supported by reduced number of banks distress in Nigeria after the 2005 and 2010 recapitalization exercise.

RECOMMENDATIONS

Based on the findings, the researcher recommends as follows:

That regulatory authority should often review their regulatory and supervisory framework to ensure that its policies are in tandem with international best practices to reduce insider abuse especially in the area of credit risk, market risk and operating risk to mitigate the banking menace of high incidence of nonperforming loans by boosting their assets quality.

That bank minimum capital base should be reviewed often at least twice per decade, this will enhance their capital adequacy ratio and reduce the over dependence of the banking sector on the customer's deposits.

REFERENCES

Allen, F., Goltstein, I., Jagtanic, J. and Lang, W.W. (2014). Enhancing prudential standard in financial regulation. *Working paper* 19106(1574), 14-36. *Research dependent, Federal Reserve Bank of Philadelphia.*

Balleisen, E. and Moss, D. (2009). *Government and Markets: Toward a New Theory of Regulation: The Tobin Project.* Reproduced with the permission of Cambridge University Press.

Calomiris, C.W. (2009). Prudential Banking Regulation: what's broken and how to fix it. Columbia business school.

CBN(2014), *Framework for the Regulation and Supervision of Domestic Systemically Important Banks in Nigeria.* BSD/DIR/CON/LAB/O7/026

Clark, E. and Octave, J. (2014). The role regulatory credibility in effective bank regulation. *Journal of Banking and Finance.* 50(2015), 506 – 513.

Dasgupta, A.(2004). Financial contagion through capital connections: a model of the origin and spread of banking panics. *Journal of the European Economic Association.* 2(6), 1049-1084.

IOSCO(2013). Credible deterrence in the Enforcement of Security Regulation. *International Organization of Security commission.*

Mankiw, G.N.(2009). *Macroeconomics* (7th Ed.). New York, NY: Worth publisher.

Mishkin, F.S. and Eakins, S.G. (2009). *Financial Market and Institutions* (6th Ed.). Boston, BTN: Pearson International.

Myerson, R.B. (2013). Rethinking the principles of bank regulation: A review of admati and hellwig's *bankers' new clothes*

Nwude, C. E. (2004). *Basic Principles of Financial Management: A First Course* (2nd Ed.). Enugu, EN: Chuke Nwabude.

Quintyn, M. and Taylor, M.W.(2002). Regulatory and Supervisory Independence and Financial Stability. *IMF Working paper.* WP/02/46

Rawling, P., Georgosouli, A. and Russo, C. (2014). Regulation of financial services: Aims and Methods. *Centre for commercial law studies.* Queen Mary University, London.

Tadesse , S.(2006). *The Economic Value of Regulated Disclosure: Evidence from the Banking Sector.* Stephen M. Ross School of Busine University of Michigan.

Uremadu, S.O. (2013). *Effect of Financial Intermediation and Regulations of Financial Deepening and Growth: Evidence from Nigeria.* Nigeria, NGR:

Wagner, W.(2010). Diversification at financial institutions and systemic crisis. *Journal of Financial Intermediation*.19(3), 373-386.

Zhou, C.(2010). Why the micro-prudential regulation fails? The impact on systemic risk by imposing a capital requirement. *International Journal of Central Banking* 6(34), 205-250

Wilf, M. (2013). *Credibility and Distributional Effects of International Banking Regulations: Evidence from US Bank Stock Returns*. Princeton University.