Financial Sector Development: Evidence from Institutional Reforms in Nigeria

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Abstracts:
The paper examine the impact of institutional reforms on financial sector development in Nigeria using data that span the periods of 1996 to 2011. Our findings indicates that measures of institutional reform such as regulatory quality (Rqty), government effectiveness (Gef); and political stability and absence of voice (Psav) impact strongly on financial sector development (Dcps) in Nigeria, suggesting the need for institutional reforms that can promote viable regulatory system for the enhancement of contract enforcement; property right protection, corruption control; and to avoid any form of politically motivated violence, unconstitutional overthrownment and terrorism in Nigeria. The results of the causality test also show that financial sector development (Dcps) granger causes economic growth (Rgdp) in Nigeria. However, it is evident that future improvements in institutional quality in Nigeria, through initiation of all-encompassing reforms in the institutions, may promote financial sector development which may in turn promote economic growth.

JEL Classification Number: EO2, E44, P48.
Keywords: Institutional Reforms, Institutional quality, financial sector, Nigeria

Acknowledgement: We thank God almighty for his inspiration and guidance. The findings, interpretations, and conclusions are entirely those of the authors and do not represent the views of the Department of Economics, University of Nigeria Nsukka. However, all the errors and omissions committed are responsibilities of the authors.

1. Introduction
Economic growth, as the central issue in every economy has received tremendous attention in the world. However, the resuscitation of the financial sector as one of mechanism to promote growth is paramount. So far, both developed, developing and underdeveloped countries are in their pursuit to stabilise the institutional environment so as to foster strong business confidence in the sector. Be that as it may, institutional development such as transparent legal system, rule of law for the maintenance and promotion of investor’s protection, and private property right cannot be overemphasized as a catalyst for financial sector development globally.

The developing nature of the Nigerian financial sector has been a thing of worry, due to the feeble institutional framework. The inability of the institutions to perform its functions in protecting the property right of the investor has further deteriorated investor’s confidence in the sector (Manasseh et.al, 2012). The aversions of the pivotal role of developed financial system in resource mobilisation and allocation, as well as the enhancement of equity flow have been punctuated. Amidst, the vulnerability of systemic distress inherent in weak regulatory framework, poor judiciary system, rule of law, corruption and insecurity, which have made it almost difficult for investors to tap from the benefits inherent in the sector (Kama, 2006). Many investors in Nigeria, mostly micro-entrepreneurs have been subjected to unnecessary severe financial constraints, denying them the opportunity to participate fully in the economic life of the country (UN, 2006; Anayiotos and Toroyan, 2009; and Sanusi, 2012). For instance, following 2005 United Nation World Summit, it was recorded that 46.3 per cent of Nigeria’s population is still financially excluded compared to South Africa, Kenya, and Botswana with 26 per cent, 32.7 per cent and 33 per cent, respectively (Sanusi, 2012).

In addition, due to the inept of the institutional framework in the enforcement of law and prosecution of the offenders, corruption becomes intensified in the country. Thus, there were societal institutions decayed to an unprecedented extent, as opportunities to access credit were colonized and hijacked by the few bourgeoisies with little or no collateral. This process was accompanied by the subversion of due process, the manipulation of existing rules and the destruction of the endured democratic values. The legitimacy and stability of the nation became compromised as Nigerian citizens began to devise extralegal and informal ways to survive (NEEDS, 2004). Amidst, the environmental hazardousness increases the anxiety on investors. Consequently, the Nigerian financial sector’s contributions to real GDP growth rate remains unimpressive. After its contribution of about 5.02%, 5.12%, 5.28%, 5.21, 5.07% and 5.35% from 1997 to 2002 respectively, the sector’s contributions have not exceeded 4.1%. For instance, in 2003 and 2004, the sector accounted for about 4.39% and 4.08% of real
GDP growth respectively. However, from 2005 till 2012 the sectors contribution has been on a decrease. It was also recorded that from 2005 to 2009, the sector contributed about 3.84% on average as indicated in figure 1 below.

![Figure 1: Financial Sector Contribution to Real GDP](image)

Considering the insignificant contribution of the sector to economic growth, the federal government of Nigeria has grown much concern over the declined in the recent time. To this, many institutional reforms have been initiated in order to improve transparency and accountability of public institutions, enforce strict regulations and prudential guide for business activities and combat corruption. For example, in 2000, the federal government established the Independent Corrupt Practices and Other Related Crimes Commission (ICPC) to investigate reports of corruption and in appropriate cases prosecute the offenders, while in 2003 the Economic and Financial Crimes Commission (EFCC) was established as a law enforcement agency to investigate financial crimes and money laundering. In addition, in June 2009, the Association of Certified Anti-Money Laundering Specialists (ACAMS) was also established. The commission works with other international bodies such as the United Nations Committee on Anti-Corruption (UNCAC), Transparency International and the African Union (AU) Convention Against Corruption to control and prevent money laundering and terrorist financing. Hence, in 2010, Asset Management Corporation of Nigeria (AMCON) was established, to address the problem of non-performing loans in the Nigerian banking industry along side with Consumer and Financial Protection Division, to provide a platform through which consumers can seek redress (NEED, 2004 and ICPC, 2003). Nevertheless, after the introductions of some measures by the authorities, the sector made a gradual recuperation though not stable (see figure 1 above). For instance, between 2010 and 2011, the sector’s contribution to real GDP growth rate stood at 3.94% and 3.98% respectively, unlike its contributions from 2006 to 2009 (NBS).

In view of the above, the following questions come to mind; (i) is institution a major determinant of financial sector development in Nigeria?, (ii) what particular institutional factors play significant role in promoting financial sector development in Nigeria? Furthermore, in order to address this question, it is therefore imperative to investigate the effect of institutional reforms on the development of financial sector for possible policy suggestion and effective policy formulation. Hence, this study examined the relationship between institutional reforms and financial sector development by assessing; (a) the impact of institutional quality on financial sector development, and (b) to investigate if financial sector development granger cause economic growth in Nigeria. Thus, this paper is divided into six sections. Section two is a review of literature, Section three outlines the methodology; Section four results presentation and discussion, section five is the summary and conclusion while section six discusses the policy implications and suggestion.

2. Review of Literature:
The need for a viable institution as a major determinants of growth in every components of the economy have been an issues of discuss in the global world today. Theoretical and empirical, many studies emphasized the need to pay particular attention to institutional development for it vital role in financial sector development (Anayiotos and Toroyan, 2009). To this reason, North (1990) defined institutions as the rules of the game in any society. Hence, it is humanly devised constraints that shape human interaction; also determine the costs of acting in political and economic contexts. Therefore, institutional development is a precursor to financial development (Miletkov and Babajide, 2008 and Mishkin, 2007). In other to strengthened North (1990) definition, Mihail and Babajide (2008) argued that well developed institution or democratic architecture must be put in place before a country’s financial sector can develop to the point at which it may start to stimulate economy. Though, some scholars question the relevance of institutional development in viable investor’s protection law. They argued that
changes in investor protection laws do not drive the evolution of corporate ownership and financial development citing United Kingdom and Italy as an example (Franks, et al., 2003; Aganin and Volpin, 2003 cited in Thorsten and Levine, 2005). Thus given the misconceptions on the role of institutions on financial sector development, under this section, we discussed in; (2.1) the theoretical underpinning, (2.2) the review of the empirical evidence, and (2.3) the review of previous studies and its limitations in Nigeria.

2.1 Theoretical Literature:
The roles of financial development in economic growth have drawn the attention of many scholars around the globe. Investigations into the major determinants of financial development have gain prominence. Some schools of thought believed that financial development follow economic growth while others refuted the ideology. The demand following school argued that as the economy expands, its demand for certain financial instruments increases which in turn lead to financial development (Gelb, 1989; Gurley and Shaw, 1960). Conversely, law and finance theory in it view, argued profusely that institution is a forerunner to financial development, especially those protecting private property right of investors in explaining international differences in financial development (LLSV, 1997, 1998 and 2000a). In addition, the law and finance theory holds that in countries where legal systems enforce private property rights, support private contracts, and protect the legal right of investors, savers/lenders tends to be more eager to finance firms, which reciprocate the promotion of financial development (Thorsten and Levine, 2005). Specifically, legal theories highlighted two inter-related mechanism through which legal origin influences financial development – (a) political mechanism and (b) protection of private contracts rights (Hayek, 1960). The political mechanism argued that legal traditions differ in terms of the importance they attach to private property rights of the State and (b) the protection of private contracts rights that forms the basis of financial development (LLSV, 1999). However, Merryman (1985) added that; (a) legal traditions differ in their ability to evolve with changing conditions and (b) legal traditions that adapt efficiently to minimize the gap between the contracts needs of the economy and the legal system’s capabilities will foster financial development more effectively than rigid legal systems.

Contrarily, apart from disapproval of demand following school, some other scholars rejected the views of law and finance theory of legal origin as the central determinant of investor’s protection and financial development. But, they accepted the fact that effective investor protection facilitates efficient corporate financing and growth-enhancing financial development (Roe, 1994; Pagano and Volpin, 2001; Rajan and Zingales, 2003). Also, they admitted the importance of legal tradition in shaping the efficiency of the financial market, but were skeptical on which legal systems should work best to promote the efficient evolution of the law (Rubin, 1982). As a result, questions were directed to the importance of investor protection laws, arguing that changes in investor protection laws does not drive the evolution of corporate ownership and financial development in the United Kingdom and Italy (Franks, et al., 2003; Aganin and Volpin, 2003). However, they fail to understand that, based on the heterogeneous nature of economies, the inability of legal system to drive the evolution of corporate ownership and financial development in United Kingdom and Italy does not rule out the tendency of its workability in other economies of the world.

2.2 Empirical Literature:
Many studies on the relevance of institution on financial sector development submit that financial sector development is driven by institutional reforms or improvement in the institutional environment such as private property right protection, stable political environment and quality legal system for law and contracts enforcement. For example, Anayiotos and Toroyan (2009) in a cross country study evaluate the effects of institutional factors such as; reliable information, contract enforcement, political stability and corruption on financial sector development in some selected Sub-Saharan Africa. They employed Data Envelopment Analysis (DEA) to unravel the extent to which these factors affect the development of financial sector of the 37 selected countries and suggest the institutional factors that play significant role in each of these countries. Collectively, their findings suggested that institutional factors promote financial depth and access to financial services more than asset quality and profitability, measured with non performing loan and return on equity respectively. The results further suggest that depth of credit information has the strongest influence on the non performing loan, while political stability affects access to financial services the most. Based on these findings, they concluded that prioritizing institutional reform enhance financial sector development for individual countries and country groups. This implies that countries willing to reduce nonperforming loan with the help of institutional changes should consider setting up credit registries, increase transparency and amount of shared information. Similarly, in many SSA countries, access is determined mostly by political stability and partially by legal rights of borrowers.

In like manner, Tressel and Detragiache (2008) on a topic titled “Do Financial Sector Reforms Lead to Financial Development?” examine whether liberalizes banking system around the world have resulted in deeper credit markets. To measure banking sector reforms they use a new index that tracks policy changes in five
separate areas for 91 countries from 1973 to 2005. The findings of the study suggest that, institutional reforms in countries that place checks and balances on political power promote financial deepening. This interpretation evidence financial sector reforms and political institutions that protect property rights are complementary. On the other hand, other country characteristics do not seem to significantly influence the effect of banking reforms on financial development.

While studies by La Porta, et al (1997) on legal origin and the level of financial development suggests that common law-based systems, originating from English law, are better suited for development of financial markets than civil law systems, adding that common law has been instrumental in protecting private property right than civil law, which aims at addressing corruption in the judiciary and improving the power of the state. Other studies such as Roe and Siegel (2009); and Rajan and Zingales (2003) exploit the inability of La Porta, et.al (1997) in incorporating political stability in their study and stress its importance on financial sector development just like study by Anayiotos and Toroyan (2009) discussed above. However, Roe and Siegel (2009) investigate the relationship between political stability to economic growth and financial development. Their findings suggest that political instability explains the level of financial development more than historical legal origin which was given more prudence by La Porta et.al (1997) studies while, Rajan and Zingales (2003) study on political economy as determinants of financial development argued that simultaneous opening of both trade and capital account lead to financial development. Hence, they maintain opening trade and capital account does not only promote competition but also reduces inefficiencies and encourages competition in the sector.

Notwithstanding, Beck et al. (2002) equally extend their research strength into investigating if cross-country differences in financial development are accounted for by cross-country differences in legal tradition; political structure and initial endowments by employing cross-country regressions, using La Porta et al. (1997) as a yardstick. Though, their findings are consistent with the law and finance view (La Porta et al. 1997). The evidence show that differences in legal origin/heritage assisted in explaining the development of financial markets after controlling for the level of economic development, regional dummy variables, religious composition, ethnic diversity, openness to international trade, fraction of years the country has been independent since 1776, the transplant effect, initial endowment, and the political environment. However, in comparison to other legal families such as countries with a French legal tradition, tend to have weak financial institutions. They have less transparent corporate financial statements, poorer property rights protection, weaker protection of the rights of shareholders and debt holders, and lower levels of stock market and bank development while common law and civil law countries have comparatively strong financial institutions.

In like manner, Lombardo and Pagano (2000) examine the cross-country relationship between the quality of institutions and the rate of return on equity looking at empirical findings of La Porta et al. (1997) and Lombardo and Pagano (1999). To further their investigation, they used almost all the data set and sampled countries in a study by La Porta et al. (1997). Their results show that indicators of the general quality of the legal environment have a consistently positive correlation with the risk-adjusted rate of return, whereas measures of the protection of shareholders rights have either no or negative impact on the return on equity. In addition, for thorough investigation on the role of quality institution on the rate of equity return, the study was extended by looking at the influence of institutional quality on the ratio of market stock index and accounting measures like ratio of dividend yield and earnings. Using the ratio of return on each market stock index as a dependent variables, measures of quality legal environment appear as important explanatory variables while the proxy for protection of shareholder rights do not appear to have additional explanatory power. Thus, the relationship between respect for the law/judicial efficiency and the risk-adjusted rate of return on equity is positive and statistically significant. Therefore, the findings suggest that increases in the respect for the law have a comparable impact on secondary market returns. They concluded that general measures of institutional quality are positive and highly statistically significant supporting the work of LLSV (1997).

Levine (1998) examines the connection between the legal environment and financial development, and then tracing this link through to long run economic growth. First, he finds that the legal and regulatory environment matters for financial development. Countries with legal and regulatory systems that give a high priority to creditors receiving the full present value of their claims on corporations have better functioning financial intermediaries than countries where the legal system provides much weaker support to creditors. Second, the empirical results indicate that contract enforcement is significant to determine financial development. Countries that impose compliance with laws efficiently and enforce contracts including government contract effectively tend to have much better developed financial intermediaries than countries where enforcement is more lenient. Finally, he discovers that information disclosure also plays an important role in determining financial development. For instance, countries where corporations publish relatively comprehensive and accurate financial statements have better developed financial intermediaries than countries where published information on corporations is less reliable.

Beck et al. (2003b) examine whether the measure for the political channel and adaptability channel is good enough to account for international differences in stock market, financial intermediary, and private
property rights development. Two-stage least squares was used in their study, considering legal origin dummy variables as the instrumental variables. The results supported for the adaptability channel but not the political channel. Specifically, the political channel predicts that Supreme Court power will enter positively: less State control of the courts will translate into greater financial development. In contrast, Supreme Court power enters either insignificantly, or negatively. Instead, the data are consistent with the adaptability channel: Case Law is positively associated with stock market development, bank development, and private property rights protection. Research also focuses on judicial formalism, which is related to the adaptability mechanism. Excessive formalism may slow legal processes, increase legal costs, and hinder the ability of courts to arrive at fair judgments due to the rigid adherence to bright-line-rules (Johnson et al., 2000; Djankov et al., 2003a; Glaeser and Shleifer, 2002).

In addition, Gries and Meierrieksy (2010) investigation on institutional quality and financial development in 19 Sub-Saharan Africa countries for the periods of 1984 to 2007 indicated that some variables associated with high institutional quality exert a positive causal influence on financial development. Hence, strong property rights protection and political stability are found to be the most important institutional factors promoting financial development. Thus, suggesting that improvements in institutional quality such as property rights protection and political stability may promote economic development through their positive effect on financial development. Moreso, Levine (1999) study on Napoleon, Bourses, and Growth with particular emphasis on Latin America, stresses for institutional development. She maintained that countries where legal codes stress the rights of shareholders and where the regulatory system rigorously encourages corporate information disclosure tend to have better developed financial system. She added that, the disappointing growth of many Latin American countries is as a result of lack of government support in encouraging the dissemination of comparable high-quality corporate financial statements, which lead to the failure of providing effective legal protection to minority shareholders, stressing the importance of institutional development in financial development.

Acemoglu and Johnson (2005) in quest to examine the importance of property right institutions in a study titled unbundling Institutions, argued vehemently that property right institutions have play a vital role in determining long-run growth, investment and financial development whereas contractual institutions form the basis of financial intermediation and slightly influence growth and financial development. Djankov et al. (2007) in the other hand, explored an investigative study into credit institutions in 129 countries over 25 years and show that contract rights and enforcement institutions play a significant role in the development of financial markets. While Demetriades and Fielding (2009) examines the lack of information on borrowers, corruption and political instability as main challenges for financial development in eight countries of West Africa. McDonald and Schumacher (2007) demonstrated that financial liberalization, stronger legal institutions, legal origin, lower inflation, and increased sharing of information stimulate financial sector development in South-Sahara Africa. In like manner, Chinn and Ito (2006) in inspect the relationship between institution and financial development considering financial openness, corruption, law and order as the main problem. He finds that financial openness stimulates equity market development only if some threshold level of legal development has been attained.

Moreso, Miletkov and Babajide (2008) study on legal institutions, democracy and financial sector development, using a panel of 122 countries over the period 1970 to 2000 suggested that institutional development is a precursor to financial sector development. While there is a correlation between the quality of legal institutions and financial development, their findings show no causal relationship. Thus, it means that changes in the quality of legal institutions do not predict changes in the level of financial development. Other studies on the impact of institutional quality on financial development suggest a positive relation between institutional quality and financial development. These studies suggested that legal system, degree of democracy and political stability, trust and rule of law are positively linked with financial system development and efficient financial structure (see Beck et al, 2003; Calderon et al, 2001; Djankov et al, 2007; Baltagi et al, 2007 and; Girma and Shortland, 2008).

2.3 Review of Related Previous Studies and its limitations in Nigeria:

Recently, there has been consistent effort in the exploration of the importance of institutional development for proper enforcement and investor’s protection on financial sector development. However, apart from the cross country studies by Anayiotos and Toroyan (2009); and Gries and Meierrieksy (2010) in Nigeria, other studies on the influence of institutional reforms or institutional quality were not directly linked with financial sector development. Therefore, the review of literature on this section is mostly on related studies.

Study by Martins and Latifah (2014) on institutional capacity and macroeconomic performance for the period 1961 to 2011, using multivariate vector error correction model, indicated a co-integration relationship between institutional capacity, fiscal-monetary policy mix and macroeconomic performance. The results of the generalized impulse response functions suggest that one standard deviation innovation on institutional capacity reduces macroeconomic performance measured by real gross domestic product in the short, medium and long
term, while results of the variance decomposition indicate that a significant variation in Nigeria’s macroeconomic performance is not attributable to changes in the capacity of institutions. Hence, they recommended that for the improvement in macroeconomic performance, mechanisms which deliberately seek to enhance institutional capacity, with a view to stimulating growth and providing the impetus for the achievement of macroeconomic objectives in the short, medium and long term horizons be instituted and vigorously pursued.

Odubogun (1995) in his own effort extended the role of institutional reforms, by investigating its impact on foreign remittances and exchange rate policy which covered the period 1960 to 1990. He compared the outcome of each policy regime in terms of the trend, degree of exchange rate premium and structure of forex allocation. The findings suggest that despite 1986 reform, the naira exchange rate was not competitively determined and the allocation of forex remains inconsistent with the requirements for the long-term development of the Nigerian economy. The finding equally suggested that post-reform exchange rate policy was adversely affected by government’s expansive fiscal and monetary policy. From the findings, the study concluded that, given government’s macroeconomic policy and the character of the markets, the naira exchange rate has little chance of convergence and as a result, the possibilities for distortions in the allocation of forex remain very high. Hence, inviws of the study or author’s choice of variables, there was no traces of any influence of institutional factor(s) on naira exchange rate and allocation of forex, having known that the aim of institutional reforms is to improve its quality regarding the significant role it play in the economy. However, more attention was given to macroeconomic variables such as external debt outstanding, debt service ratio, external reserves, total export, total import and oil export without the inclusion of any institutional determinant such as corruption, political stability and bureaucracy, rule of law or democratic among others for thorough assessment.

Furthermore, Kehinde and Adejuwon, (2011) also examines the importance of financial institutions to economic development in Nigeria. The paper discusses the financial reforms in Nigeria and how the reforms have impacted positively on the banking industry. Their contributions towards economic development in Nigeria are also highlighted. It suggest that the policy direction should emphasis the overall growth of the financial system with reduced transaction cost, rather than focusing on any of the structures as both impact in a similar way on the overall economy. The paper concludes that economic policy is important to Nigeria’s economic recovery and transition into a competitive market economy.

Considering the body of reviewed literature, only a cross country study conducted by Anayiotos and Toroyan (2009); and Gries and Meierrieksy (2010) earlier mentioned look at the influence of institutional factors on financial sector development in some selected Sub-Sahara Africa. Anayiotos and Toroyan (2009) finding suggested that Nigeria has one of the worst institutional environments in the sample but with high ranking in legal rights, while Gries and Meierrieksy (2010) findings suggest that the institutional factors most strongly associated with financial development in 19 selected Sub-Sahara Africa are the protection of property rights and political stability. By contrast, their results show little evidence that corruption, bureaucratic efficiency, the rule of law or democratic accountability are significantly linked to financial development which indicate that not all institutional factors matter in similar ways to financial development in Nigeria. Other related studies focused more on the impact of financial sector reforms or banking sector reforms on economics growth in Nigeria (e.g. Manasseh et.al., 2012; Sanusi, 2011; Adegbite, 2005 and Anyanwu, 2010). To the best of our knowledge, there is no specific study on the role of institutional reforms on the financial sector development in Nigeria. Hence, this study intends to provide preliminary evidence on the importance of institutional reforms on financial sector development in Nigeria, adopting a modified Charles Amo Yartey’s model and granger causality test.

3. Research Methodology and Data:
The study adopted Charles Amo Yartey’s modified Calderon-Rossell Model. Cadeleron-Rossell (1990) developed a behavioural structural model of stock market development. In this model economic growth and stock market liquidity are considered the main determinants of stock market development. But Yertey (2010) modified the model to incorporate other financial, macroeconomic, and institutional variables that might affect stock market development. In particular, he examines the role of banking sector development, political risk, and private capital flows in explaining stock market development in emerging markets (see equation (1) below).

$$Y_{i,t} = \alpha_i + \delta Y_{i,t-1} + \beta M_{i,t} + \sigma P_{i,t} + \epsilon_{i,t}$$  (1)

Where $Y_{i,t}$ is stock market capitalization relative to GDP, $\alpha_i$ is the unobserved country specific fixed effect, and $\epsilon_{i,t}$ is the usual white noise. $M_{i,t}$ is a matrix of macroeconomic variables while $P_{i,t}$ variables are measures of institutional quality. He also included one lag of the dependent variable as one of the right hand side variables.

(a) The Modified Yertey Amo Charles Model:
Since the study look at the role of institutions on financial sector development, considering the imperative contributions of institutional factors on financial sector development indicated by the works of Gries
and Meierrieksy (2010); and Anayiotos and Toroyan (2009) in Nigeria, we therefore, modify Yertey Amo Charles (2010) model presented in equation 1 above to incorporate financial sector development and institutional indicators as presented in equation (2) below. Hence, in this model institutional indicators are considered the main determinants of financial sector development. We also control for the effect of non-institutional factors that could influence financial sector development.

$$ Fd_{i,t} = \alpha_i + \psi I_{i,t} + \varphi C_{i,t} + \epsilon_{i,t} $$

Where $Fd_{i,t}$ and $I_{i,t}$ are the vectors of financial sector development and institutional quality respectively. Institutional quality in this study comprises measures of economic and political institution. $C_{i,t}$ is the control variables for non institutional factors while $\alpha_i$ is the intercept. $\Psi$ and $\varphi$ are coefficients of institutional quality and the control variables respectively. $\epsilon_{i,t}$ is the white noise.

To investigate if financial sector development granger causes economic growth in Nigeria, we perform the Granger causality Wald tests. The idea of Granger-Causality is that a variable $x$ granger-causes variable $y$ if variable $y$ can better predicted using the histories of both $x$ and $y$ than it can be predicted using history of $y$ alone.

$$ y_t = \beta_0 + \sum_{k=1}^{m} \beta_k y_{t-k} + \sum_{l=1}^{n} \alpha_l x_{t-l} + \mu_t $$

$$ x_t = \gamma_0 + \sum_{k=1}^{m} \delta_k y_{t-k} + \sum_{l=1}^{n} \gamma_l x_{t-l} + \nu_t $$

(b) The Data:
The dependent variable of interest is financial sector development. Empirically, numbers of proxies have been suggested for financial sector development. For example, the ratio of financial institutions’ assets to GDP, ratio of liquid liabilities to GDP, and ratio of deposits to GDP. However, since the Nigerian financial sector comprises a variety of financial institutions, markets and products, these measures only serve as a rough estimate and do not fully capture all aspects of financial development. The World Bank’s Global Financial Development Database (GFDD) developed a comprehensive yet relatively simple conceptual framework to measure financial development worldwide. This framework identifies four sets of proxy variables characterizing a well-functioning financial system: financial depth, access, efficiency, and stability. Considering the fact that Nigerian financial system is bank based, we therefore base our measure of financial sector development on domestic credit to the private sector ($Dcps$) as percentage of GDP which is also one of the World Bank suggested proxies for financial depth which captures; size of banks, other financial institutions, and financial markets in a country.

Yertey (2010) argued that in emerging markets, investors are faced with economic, financial and political risk. This suggests that investors, who are more risk averse, invest more in less risky than high risky market. Hence, high risk serves as a deterrent to the development of any market through its ugly influence on the inflow of foreign investment into the market. Therefore, we assume that market with strong law for contract enforcement; property right protection and control corruption have viable regulatory quality. This is because, the inability of government to make and enforce stringent law that can improve the quality of contract enforcement, property rights, the police, and courts, as well as reduce the level of corruption and promote private sector development is a replication of weak regulatory system and exposes investors to the danger of losing their investible funds and assets. Thus, regulatory quality ($Rqty$) in this study is used as a proxy to measures the influence and law and the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Following WGI, (2012) and Kaufmann et.al (2010), Political stability and absence of violence ($Psav$) measures the intent to destabilize or overthrown government by unconstitutional or violent means, including politically motivated violence and terrorism. Government effectiveness ($Gef$) captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures and the credibility of the government's commitment to policy formulation. In view of the above proxies, economic institution is captured by regulatory quality and government effectiveness while political institution is measured by political stability and absence of voice. The data for institutional indicators were generated from World Government Indicators (WGI) produced by Kaufmann et.al (2010).

Furthermore, we control for the effect of non institutional indicators such as macroeconomic stability and Private capital flow. Macroeconomic stability is expected to attract more investors into the market and promote financial sector development because of the inherent corporate profitability which may be affected by changes in monetary and fiscal policy. To determine the impacts of macroeconomic stability on financial sector development, two measures were used - inflation ($Inf$) and real interest rate ($Rintr$). High inflation and high real
interest rate discourages lending by financial intermediaries and make allocation of resources less effective, along with distortions in financial sector performance. Moreso, it has been argued that in recent time, foreign investors have emerged as major participants in emerging financial market and the increases participation in the market leads to more capital flows (Yertey, 2008). Hence, in this study, private capital flows is measured with foreign direct investment. The data for the measures of non institutional indicator is generated from Central Bank of Nigeria statistical Bulletin and Nigeria Bureau office of statistics (NBS).

4. Results Presentation and Discussion:
This section presents the results of the impacts of institutional indicators on financial sector development. It also presents the causality test of financial sector development on economic growth. Financial sector development is measured by domestic credit to private sector (Dep) as a percentage of GDP. The institutional indicators are divided into economic institution and political institution. Economic institution is measured by regulatory quality (Rqty) and government effectiveness (Gef) while political institution is measured by political stability and absence of voice (Psav). However, economic growth is measures by real gross domestic product (Rgdp). Though, we did not enter real GDP into the model for regression because the study is not interested in its influence on financial sector development but only interested in investigating if financial sector development ganger causes real GDP. Hence, to achieve this, financial sector development measured by Dep is regress on real GDP. The causal effect is presented on table 4 below. We also control for the influence of non institutional determinants of financial sector development such as macroeconomic stability measured by inflation (Inf) and real interest rate (Rintr); and private capital flight proxied by foreign direct investment (Fdi).

Before the stationarity test presented on table 1 below, we performed other test such as the multicollinearity, autocorrelation and heteroscedasticity. Using the variance inflation factor (VIF) and tolerance (1/VIF), the variables were found to be free from multicollinearity problem. VIF values are below 10 while tolerance values (1/VIF) were all found to be above 0.1 which implies that the variables are not linearly predicted from other variables in the regression model. The result on Durbin-Watson test statistic (DW = 1.966796) at 0.05 level of significance fell in the indecision zone. Therefore, we cannot draw conclusion on the existence of autocorrelation. The plot on figure 2 below show some observations that look to have high leverage indicating some points in the upper right quadrant that could be influential. This suggests the possibility of the existence of heteroscedasticity problem. To take care of the situation, we regress with robust standard errors. The robust standard errors also account for issues on normality.

**Figure 2:**

4.1 Stationarity test:
Table 1 below presents the reports statistics of the stationarity (unit root) test on the variables. This is achieved by employing the Augmented Dickey-Fuller (ADF) test statistics.

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>ADF Statistics</th>
<th>Critical Value (5%)</th>
<th>Trend</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCPS</td>
<td>-4.023</td>
<td>3.600</td>
<td>Yes</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>PSAV</td>
<td>-9.233</td>
<td>3.600</td>
<td>Yes</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>RQTY</td>
<td>-7.103</td>
<td>3.600</td>
<td>Yes</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>Gef</td>
<td>-6.984</td>
<td>3.600</td>
<td>Yes</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>INF</td>
<td>-5.328</td>
<td>3.000</td>
<td>No</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>RINTR</td>
<td>-4.107</td>
<td>3.000</td>
<td>No</td>
<td>1 - 1(0)</td>
</tr>
<tr>
<td>LOGFDI</td>
<td>-4.602</td>
<td>3.600</td>
<td>Yes</td>
<td>1 - 1(0)</td>
</tr>
</tbody>
</table>

The report statistic indicated that all the variables are stationary at the same order of integration. Therefore, there
is the tendency to suspect that the series may have linear combination of them between the original series, though at a lower order of integration, suggesting an equilibrium relationship. To ascertain if actually there exist a cointegration problem, ADF test was conducted on the residuals at level form (see table 2 below).

Table 2: Result of ADF Test:

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>1% Critical Value</th>
<th>5% Critical Value</th>
<th>10% Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z (t)</td>
<td>-2.208</td>
<td>-3.750</td>
<td>-3.000</td>
</tr>
</tbody>
</table>

MacKinnon approximate p-value for $Z (t) = 0.2033$

The Augmented Dickey-Fuller ($ADF = -2.219$) is less than $z (t) = -3.000$ at 5% critical value, suggesting no long run relationship between the variables.

4.2 Estimated Results:
The estimated results on table 3 below indicates that about 80% of variance in domestic credit to private sector (Dcps) can be predicted from the variation in the explanatory variables. However, all three measures of institutional quality such as regulatory quality ($Rqty$), government effectiveness ($Gef$); and political stability and absence of violence ($Psav$) are all statistically significant. Regulatory quality ($Rqty$) which measures the quality of law and the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development was found to be positive and have significant influence on domestic credits to private sector (Dcps) as a proxy for financial sector development. Hence, the results show that a unit increase in regulatory quality ($Rqty$) causes 69.28597 point increases in domestic credit to the private sector. However, this shows the relevance of strong regulatory system in financial development in Nigeria. Therefore, for the development of the Nigeria financial sector, there must be a viable regulatory system cetrisparibus. According to Pistor (2013), financial markets are legally constructed and as such occupy an essentially hybrid place between state and market, public and private. At the same time, financial markets exhibit dynamics that frequently put them in direct tension with commitments enshrined in law or contracts. In other words, the enforcement of laws made to protect the contracts and property right of investors improves the level of confidence in the market. Hence, an effective regulatory quality creates conducive business environment, protecting the market from unnecessary constraints, reduced transaction cost and information asymmetries. In turn, the development of the financial sector, as an offspring of viable and independent regulatory quality could transform to increase in the provision of more financial resources for the promotion of private sector development and consequently economic growth in general.

Government effectiveness ($Gef$), as a measure of quality of public services, civil service, credibility of the government's commitment and the degree of its independence from political pressures impacted positively on domestic credit to the private sector (Dctp). From the results on table 3 below, a unit increase in government effectiveness brings about 73.65 point increases in the domestic credit to the private sector (Dctp). An effective government is an important measure of institution because it cut across all sectors of the economy and not just financial sector. It has been empirically proven that countries with efficient and more effective governments tend to achieve meritocratic civil service that result to lower levels of corruption, higher levels of economic growth by obtaining better financial system and attracting more investment, encouraging higher levels of human capital accumulation, putting foreign aid resources to better use, accelerating technological innovation, and increasing the productivity of government spending (Burnside and David, 2000a; Burnside and David, 2000b; Fatas et.al, 2005, Sarte, 2001 and Brunetti et.al, 1998). Therefore, based on our findings, for a remarkable development in the Nigeria financial sector and the economy in general, there must be a corresponding improvement in government effectiveness such as public and civil services and the credibility of discharging its responsibilities without any form of political interference.

In addition, the findings on political stability and absence of violence ($Psav$) which measures the intent to destabilize or overthrow government by unconstitutional or violent means, including politically motivated violence and terrorism is found to be statistically significant. It has a negative relationship with domestic credit to the private sector (Dctp). Hence, the result shows that a unit increase in political stability and absence of violence will lead to -50.05122 fall in domestic credit to the private sector. This implies that, any attempt to instigate political unrest such as terrorist attack and unconstitutional overthrowment would cause a serious fall in the domestic credit to the private sector in Nigeria. However, it has been inferred that violent caused by terrorist attack or unconstitutional overthrowment seriously undermining consumer and investor confidence. And deterioration of confidence associated with an attack can reduce the incentive to spend as opposed to save, a process that can spread through the economy and the rest of the world through normal business cycle and trade channels. Likewise, falling investor confidence may trigger a generalized drop in asset prices and a flight to quality that increases the borrowing costs for riskier borrowers (IMF, 2001b). Therefore, considering the ugly consequences of violent, the authorities should do everything within their power to ensure peaceful and harmonized business environment for the advancement of the sector’s development, as well as its contribution to
private sector development and economic growth. This will go a long way to increase the level of investment in Nigeria, creating more job opportunities with its consequence on poverty reduction.

Table 3: Estimation of the impact of institutional indicators on financial Sector development in Nigeria – 1996 to 2011:

| DCPS   | Coefficient. | Robust Error. | Standard. | t - Statistic | P>|t| | Lag |
|--------|---------------|----------------|-----------|---------------|----------------|------|
| PSAV   | -50.05122     | 12.51455       | -4.00     | 0.003         | 0              |
| RQTY   | 69.28597      | 25.1889        | 2.75      | 0.022         | 0              |
| GEF    | 73.65142      | 18.53013       | 3.97      | 0.003         | 0              |
| INF    | -0.1337611    | 0.3063578      | -0.44     | 0.673         | 0              |
| RINTR  | 0.6632379     | 0.1200791      | 5.52      | 0.000         | 0              |
| LOGFDI | -4.899307     | 1.460519       | -3.35     | 0.008         | 0              |
| CONS   | 64.27658      | 16.06801       | 4.00      | 0.003         | 0              |

Note: t - statistic is significant at 5%. The R² = 0.7979; Prob > F = 0.0003.

In addition, considering the measures of non institutional indicators, as important determinant of macroeconomic stability, inflation (Inf) has a negative relationship with domestic credit to private sector (Dcps) though not statistically significant. This suggests that a unit increase in inflation decreases domestic credit to private sector by 0.1337611 points. Higher rates of inflation create greater credit rationing and distort the flows of information, thereby exacerbating credit market frictions. Furthermore, high inflation can repress financial intermediation by eroding the usefulness of money assets and by leading to policy decisions that may distort the financial structure. Thus, an increase in inflation may interfere with the ability of financial sectors to allocate resources, thereby reducing capital accumulation and economic growth (Dong-Hyean et.al, Nil). Furthermore, irrespective of the relevant role of institution in determining the development of a financial sector in Nigeria, moderate inflation rate is also necessary because even in the presence of viable institutional framework, the market still need stable macroeconomic environment to thrive.

In the same vein, the findings on the relationship between real interest rate (Rintr) and domestic credit to private sector (Dcps) is highly statistically significant. From the evidence, real interest rates impact positively on domestic credit to private sector, suggesting that a unit increase in Rintr would increase Dcps by 0.6632379 points. Though, we expected nonlinear relationship between the variables because, normally high real interest rate discourages lending by financial intermediaries and make allocation of resources less effective, along with distortions in financial sector performance. Beside, this findings may either stimulates or dampen the development of the financial sector depending on the interest of the authorities. According to McKinnon (1973) and Shaw (1973) an increase in real interest rates have a positive effect on the volume and quality of investment in financially repressed economies. They further postulate that, an increase in real interest rates stimulates both total and financial savings which in turn spur investment. Hence, higher interest rate could rule out investment projects with low productivity. However, at higher interest rates, economic agents may prefer to hold deposits that yield a higher return than investment in physical capital (Omar, 2003). In the contrary, a decrease in the real interest rate lowers the opportunity cost of capital and, therefore, raises the desired capital stock and investment spending. In most cases, due to benefits of low interest rate in stimulating economic activities through the inducement of business spending on capital goods, most emerging economies like Nigeria tends to favour low real interest rate than higher rate. This is because; it improves bank balance sheets and the capacity of the banks to lend so as to promote the development of the private sector (FRB, 2011).

The investigation into the relationship between private capital flight measured by foreign direct investment; and domestic credit to the private sector (Dcps) appears to be negative but statistically significant. This evidence shows that a unit increase in private capital flight reduces domestic credit to private sector (Dcps) by -4.899307. Therefore, the nonlinearity symbolizes the tendency of a fall in the volume of financial intermediation as private capital flight increases, and could constitutes a major risk of curtailing the performance of the banking system which dominated the market and financial sector development in Nigeria. The implication of this result is that private capital flight constitutes an important financial development challenge in Nigeria.

From the estimated results, as the core variables of the study, it is obvious that regulatory quality (Rqty), government effectiveness (Gef) and; political stability and absence of voice (Psav) impact on financial sector development appear very large. Firstly, the result suggests that strong regulatory quality (Rqty) for contract enforcement; property right protection and control corruption promote financial sector development in Nigeria. Secondly, government effectiveness (Gef) in promoting quality civil service with high degree of independence from political pressures in law enforcement and policy formulation also play a significant role in promoting financial sector development in Nigeria. This means that, politically motivated violence, unconstitutional overthrowment and terrorism could deter financial sector development in Nigeria by weakening consumer and investor confidence. And the decline in the investors’ confidence could reduce the
incentive to spend as opposed to save. Also, falling investor confidence may generate a drop in asset prices and increases in the costs of borrowing (IMF, 2001b). Thus, the findings of the study supported law and finance theory which assert that institution is a forerunner to financial development, especially those protecting private property right of investors. It also supported the findings of Acemoglu et al. (2005); Greens and Meierrieksy (2010); Miletkov and Babajide (2008) Anayiotos and Toroyan (2009); Manasseh et.al (2012) and La Porta et.al (1997, 1998).

4.3 Granger causality Wald tests:
The Wald causality test is performed to investigate if domestic credit to private sector (Dcps) granger causes economic growth (Rgdp) in Nigeria.

<table>
<thead>
<tr>
<th>Equation</th>
<th>Excluded</th>
<th>chi2</th>
<th>df</th>
<th>Prob &gt; chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dcps</td>
<td>logr</td>
<td>7.8325</td>
<td>2</td>
<td>0.020</td>
</tr>
<tr>
<td>Dcps</td>
<td>ALL</td>
<td>7.8325</td>
<td>2</td>
<td>0.020</td>
</tr>
<tr>
<td>logr</td>
<td>Dcps</td>
<td>0.74299</td>
<td>2</td>
<td>0.690</td>
</tr>
<tr>
<td>logr</td>
<td>ALL</td>
<td>0.74299</td>
<td>2</td>
<td>0.690</td>
</tr>
</tbody>
</table>

The null hypothesis that financial sector development does not Granger-cause economic growth in Nigeria is rejected since the Prob>chi2 measure of financial sector development (Dcps) is less than 0.05. This suggests that financial sector development can be used to predict economic growth in Nigeria. This finding does not support the postulates of demand following school of thought which argued that - as the economy expands, its demand for certain financial instruments increases which in turn lead to financial development (Gelb, 1989; Gurley and Shaw, 1960) but follow the postulates of theory of law and finance supported that see institution as a forerunner to financial development (Anayiotos and Toroyan, 2009; North, 1990; Miletkov and Babajide, 2008 and Mishkin, 2007; Mihail and Babajide, 2008).

5. Summary and Conclusion:
The paper assesses the impacts of institutional reforms on financial sector development in Nigeria using time series data that covered the periods of 1996 to 2011. The empirical results based on modified method of Yertey Amo Charles (2008) significantly influence financial sector development in Nigeria. Institutional quality such as regulatory quality (Rgdy), government effectiveness (Gef); and political stability and absence of voice (Psav) impacted strongly on financial sector development (Dcps). This investigation concur with the postulates of law and finance theory and empirical findings of Tressel and Detriagiache (2008); Acemoglu and Johnson (2005); Greens and Meierrieksy (2010); Miletkov and Babajide (2008) Anayiotos and Toroyan (2009) among others. For instance, findings of Tressel and Detriagiache (2008) on a study titled “Do Financial Sector Reforms Lead to Financial Development?” suggest that institutional reforms in countries that place checks and balances on political power promote financial deepening. Anayiotos and Toroyan (2009) in a cross country study evaluated the effects of institutional factors such as; reliable information, contract enforcement, political stability and corruption on financial sector development in some selected Sub-Saharan Africa. They concluded that prioritizing institutional reform enhance financial sector development for individual countries and country groups. Also, Greens and Meierrieksy (2010) investigation on institutional quality and financial development in 19 Sub-Saharan Africa countries for the periods of 1984 to 2007 indicated that improvements in institutional quality such as property rights protection and political stability may promote economic development through their positive effect on financial development. In addition, we also identified a causal link running from financial sector development (Dcps) to economic growth (Rgdp) in Nigeria.

The results equally reveal that the institution in its sense does contribute to financial sector development except only when institutional development has been attained. This implies that the development of financial sector has no relationship with feeble regulatory quality that happens to be a condition prevalent among developing countries. Therefore, improvement in the quality of regulatory institutions in Nigeria is crucial for further advancement of the financial markets. Hence, for a viable financial system, the authorities should impose well-regulated policies to strengthened and protect the property right of the market actors and as well as reduce high level of corruption in the system. In view of these findings, we therefore stress the need for institutional reforms that can promote viable regulatory system for the enhancement of contract enforcement; property right protection, corruption control; and to avoid any form of politically motivated violence, unconstitutional overthrowment and terrorism in Nigeria in order to record a burgeoning development in Nigerian financial sector.

Nonlinearity of macroeconomic stability’s indicator like inflation suggest the important of stable macroeconomic environment because, it is obvious that high rates of inflation could make a fuss of credit rationing thereby exacerbating credit market frictions. It can also repress financial intermediation by eroding the
usefulness of money assets, leading to policy decisions that may distort the financial structure, interfering with the ability of financial sectors to allocate resources and reduce capital accumulation and economic growth (Dong-Hyeon et al., Nil). Furthermore, the linear relationship that existed between real interest rate ($R_{int}$) and domestic credit to private sector ($DCPS$) is beyond our expectation. Though, it may have been supported by the postulates of McKinnon (1973) and Shaw (1973) which opines that an increase in real interest rates has a positive effect on the volume and quality of investment in financially repressed economies which sometimes may be experienced in the developed economies. But following the aprori, it should be noted that high real interest rate ought to have discourage lending by financial intermediaries and make allocation of resources less effective, along with its distortions in financial sector performance while our result show the opposite. Therefore, considering the result, developing nature of Nigerian economy and the financial system in particular, we conclude by urging the authorities to opt for policies that can encourage low interest and inflation rates to attract more investors, spur investment and promote economic growth. Finally, the evidence of nonlinearity in the relationship between private capital flight and domestic credit to private sector ($DCPS$) signifies a fall in the volume of financial intermediation as private capital flight increases, and could create the risk of limiting the function of the banking system that dominated the financial system in Nigeria, thereby posing a strong challenge to the development the financial sector.

6. Policy Implications and Suggestions:
The findings of this paper have important policy implications in Nigeria. Firstly, institutional quality plays a significant role in financial sector development. Secondly, a well developed financial sector is important for economic growth. Therefore, for lenders or savers to be more eager to finance firms which reciprocate financial sector development, strong legal systems for the enforcement of private property rights of individuals, contracts, and protection of legal right of investors should be given prudence. Also, viable institutional reforms should be initiated in order to improve transparency and accountability of public institutions, civil service, enforces strict regulations and prudential guide for business activities. This will go a long way in reducing the height of corruption and instill more confidence in the sector and the economy in general. More so, macroeconomic stability – low interest and inflation rates, should be ensured to attract more investors into the market thereby promoting the private sector development. Hence, for the development of the Nigerian financial sector and its contribution to economic growth, we consider the possible policy suggestion from the findings of this study plausible.

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