FINANCIAL INCLUSION AND FINANCIAL STABILITY IN NIGERIA: A NEW EMPIRICAL EVIDENCE

Onyinye I. Anthony-Orji (Phd)
Department of Economics, University of Nigeria, Nsukka
E-mail: onyinye.anthony-orji@unn.edu.ng

Anthony Orji (Phd)
Department of Economics, University of Nigeria, Nsukka

Jonathan E. Ogbuabor (Phd)
Department of Economics, University of Nigeria, Nsukka

Peter N. Mba (Phd)
Department of Economics,
University of Calabar, Nigeria.

Israel Emenike Onwe,
University of Nigeria, Nsukka

ABSTRACT

The study estimated the impact of financial inclusion on financial stability of Nigeria over the period of 1982-2019. Adopting the Classical Regression Model, the findings reveal that financial inclusion impacts positively on financial stability. Deposits of rural branches of commercial banks reflected a positive relationship with financial stability, while investment also had a significant positive relationship with financial stability. The study recommended that policies should be directed towards creating more investment opportunities and inclusive financial system to improve the current level of financial inclusion, so as to achieve better financial stability in Nigeria.

Keywords: financial inclusion; financial stability; investment, deposits

JEL Classification: G21; G28; O16

1. INTRODUCTION

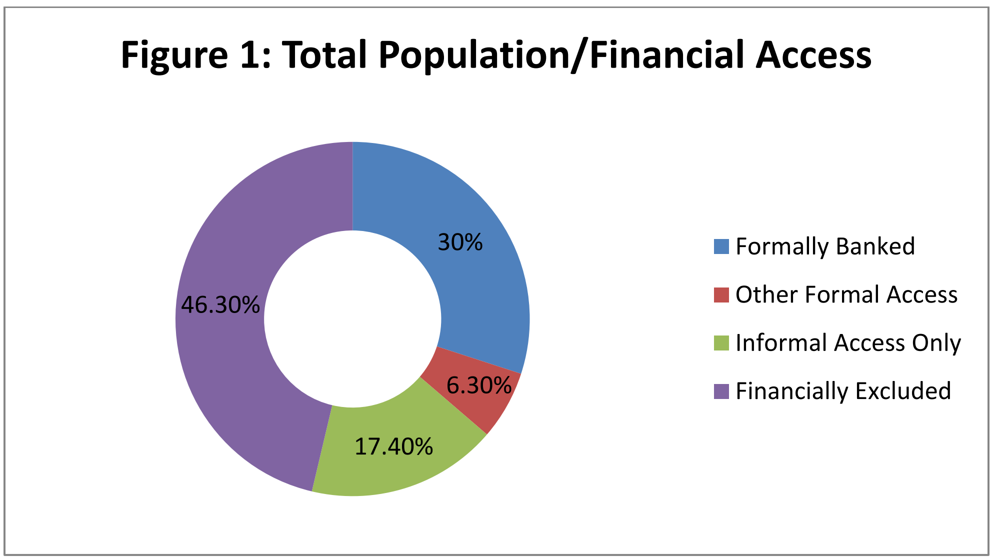
The fundamental argument that supports the link among financial inclusion, financial development, stability and economic growth is that a well-developed financial system performs several critical functions to enhance the efficiency of intermediation by reducing information, transaction, and monitoring costs. A well-developed financial system enhances investment, financial development and stability by identifying and funding good business opportunities, mobilizes savings, enables trading, hedges and diversifies risks, and facilitates the exchange of goods and services. These functions result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in financial development, stability and economic growth. Thus, there is an extensive literature on the link between financial development and economic growth. Well-functioning financial systems serve a vital purpose by offering savings, payment, credit, and risk management services to individuals and firms. The proportion of individuals and firms that use or have access to financial services can be referred to as the financially included (IMF Global Financial Development Report, 2014).

Considerable evidences abound that indicate that the poor benefit enormously from access to basic financial services such as payments, savings, and insurance services. However, while financial inclusion has important benefits, boosting financial inclusion is not trivial. If care is not taken, efforts to promote financial inclusion can lead to defaults and other negative effects. Griffith-Jones and Karwowski (2013) demonstrate that fast credit growth could exacerbate vulnerabilities and enhance the risk of financial crises. More recently, the global financial crisis of 2008-2009 has heightened public awareness on the need for supervision and regulations of individual banks.

A number of adults in developing countries, for example Nigeria, lack access to formal financial services. Although, there are many things that are required to reduce the number across the nation, the principle of financial inclusion has assumed greater level of importance in recent times due to its perceived importance as a driver of financial stability and development, and economic growth. Giving access to the hundreds of millions of men and women (all over the nation) who are presently excluded from financial services would provide the possibilities for the creation of a large depository of savings, investible funds, investment and therefore national wealth generation.

Financial exclusion has manifested prominently in Nigeria with the bulk of the money in the economy staying outside the banking system. The issue of financial exclusion has therefore been a major economic challenge on both the economic growth and the financial system development and stability, which has received the attention of the various governments over the past four decades.

A survey conducted by the Enhancing Financial Innovation and Access (EFInA) in 2010 indicated that only 30.7 million out of the 85 million Nigerians above the age of eighteen have access to formal financial services (services from deposit money banks and other formal institutions), leaving out over 54 million either served by the informal institutions or totally unbanked. The formally serviced(25.4 million) use the products and services of the deposit money banks either as salaried workers or as business men and women, while the remainder (5.3 million) of the formally serviced use the services of other formal institutions like the finance houses, microfinance banks etc. Nigeria has a higher proportion of financially excluded adults at 46.3%, compared with 26.0% in South Africa, 33.0% in Botswana and 32.7% in Kenya (EFInA, 2010).



Source: EFInA (2010), Access to Financial Services in Nigeria 2010

Over the years, the government and the monetary authorities have introduced varying policies aimed at deepening financial inclusion within the economy. The policies ranged from various institutional involvements such as the establishment of community and microfinance banks to specific policies and programs designed to facilitate the inclusion of the financially excluded into formal financial services. The private banks, on the other hand, have also been engaged in innovations and activities aimed at getting more people involved in the financial inclusion process, though their level of involvement have always been moderated to the extent that profitability is enhanced.

One of the first major policies of the government aimed at promoting financial inclusion was the adoption of the rural banking program in the late 1970s. The Scheme was introduced by the Central Bank in 1977 with the goal of achieving one bank branch in each of Nigeria's local government areas. The commercial banks were provided with targets to establish over rural branches under the scheme. Government hoped that the rural banking scheme would help achieve the transformation through: providing a platform for the mobilization of savings in the rural areas through the diffused network of branches in all parts of the society; encouraging banking habits among the largely agrarian rural population; providing credit for the growth of the small scale industries and entrepreneurs (Okorie, 1990).

:

Table 1: Rural Banking Program 1977-1983

	First Phase (1977-1980)	Second Phase (1980-1983)
Number of Banks	20	20
Allocations	200	266
Achieved at end-June 1980	188	-
Achieved at end-December 1980	194	-
Achieved at end-December 1981	199	38
Achieved at end-December 1982	200	121
Achieved at end-December 1983	200	181

Source: CBN Annual Reports Statement of Account 1981-1983

The scheme was implemented in two phases from 1977-1983 (see table 1). Under the first phase of the program (1977-1980), of the 200 (two hundred) target number of rural branches, the banks have opened five (5) at end-December 1977. The number of rural branches opened under phase one (1) increased to 188 at end-June 1980 and stood at 194 by end-December. A total of

N116.4 million was outstanding as deposits at end-June 1980, while total loan and advances of the rural branches amounted to N22.4 million.

The banks were required to open 266 (two hundred and sixty six) rural branches under the second phase between 1980 and 1983. The number of branches opened under phase two which stood at 121 at end-June 1981 increased to 181 at end-December 1983. Overall the number achieved in the second phase represented only 68.0% compared with 94.0% achieved during the first phase. The poor performance in the second phase was attributed to the shortage of infrastructural facilities and the fact that the banks were constrained by inadequate financial and human resources.

Immediate effect of this initiative was the fact that more members of the rural populace had increased access to the use of the banks particularly for savings and money transfer facilities. Another observed effect of all these initial policies on level of financial inclusion was reflected in the decline in the ratio of Cash Outside Bank to the Stock of Narrow Money Supply in the economy from 61.1% in 1969, to 44.3% in 1979 to 40.9% in 1989 (Martin, 2008). These initial gains were, however, diluted by the widespread incidence of bank distress, increased inflation and political uncertainty of the 1990s.

Other initial policies to promote the spread and improve financial sector development included the introduction of guidelines which prescribed minimum levels of lending to small scale enterprises and loans extended in rural areas. Banks which failed to meet up with these limits were not only subjected to fines and penalties but were also made to transfer whatever was the shortfall amount to either the Central Bank of Nigeria or the development finance institutions.

In addition, community banks (CBs) were licensed in the 1990s to promote increased savings culture and grow banking habit. The CBs were conceived as self-sustaining, community-owned financial institutions. Amongst the various incentives provided by the government to encourage establishment of the CBs was the provision of 100% matching grant for a community raising the minimum capital. The banks were encouraged and made to serve mostly local residents with simple and non-sophisticated services. The first set of community banks were established at the end of 1990, and by 1999, the total of reporting community banks stood at 550 with total assets base of N8.9 billion. The total deposit also reached over N5.7 billion with loans and advances of about N2.9 billion (CBN, 2003).

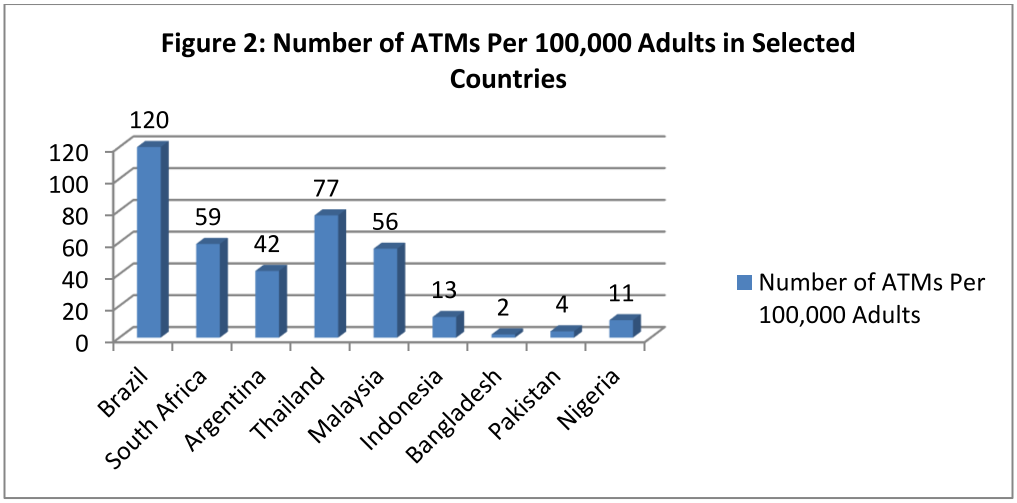
In recent years, the CBN has been at the fore front of encouraging and supporting products that are specifically targeted at the low income and financially excluded, while the government has focused more on both interventionist financing arrangements and building institutions and frameworks that promote financial inclusion.

One of the critical initiatives in this direction was the incorporation of financial inclusion as one of the cardinal objectives of the Nigerian Financial System 2020 (FSS 2020). The FSS 2020 represents a holistic and strategic road map and framework for developing the Nigerian financial sector into a growth catalyst that will enable Nigeria be one of the 20 largest economies by 2020.The government, in 2005 launched the National Microfinance Policy which provided the supervisory and regulatory framework that will not only facilitate the growth of privately-owned microfinance institutions but also permit and facilitate the participation of mostly the third sector institutions, including market associations, cooperatives, non-governmental organizations, self-help groups, in the microfinance model. By the end-December 2011, following the increased confidence and activities of the microfinance banks, the assets and liabilities of the Microfinance Banks (MFBs) had reached N190.7 billion from just N55.1 billion in 2006. The loans and the advances given by MFBs also increased from a mere N16.0 billion in 2006 to over N67.6 billion at end-December 2011. A review of the loan portfolio structure showed that short-term loans, at end-December 2011, accounted for 89.7% of the total.

The Central Bank of Nigeria CBN introduced a new framework for Non-Interest Financial Institutions (NIFIs) in June 2011 and had granted two preliminary licenses as at end-December 2011. The CBN hoped that Islamic bank products would help bring into the banking sector a large number of the country's population that had hitherto steered away from the organized conventional financial services, due to their aversion to interest and interest-based products.

The Central Bank of Nigeria has in recent times stepped-up the campaign for banks to invest heavily in other low-cost branchless channels such as ATMs, point-of sale (POS) etc. The number of ATMs deployed by end of 2011 stood at 9,640, giving an average of 11 ATMs per 100,000 adults, compared with an average of 59 ATMs per 100,000 adults in South Africa, 13

ATMs per 100,000 adults in Indonesia, 42 ATMs per 100,000 adults in Argentina, 120 ATMs per 100,000 adults in Brazil and 56 ATMs per 100,000 adults in Malaysia. Nigeria however ranked higher than such other countries as Bangladesh with just 2 ATMs per 100,000 adults and Pakistan 4 ATMs per 100,000 adults (figure 2). Adopted to accelerate the use of modern electronic payments channels, the cashless policy was implemented to: develop and modernize the payment system; reduce banking cost to drive financial inclusion and improve effectiveness of monetary policy.

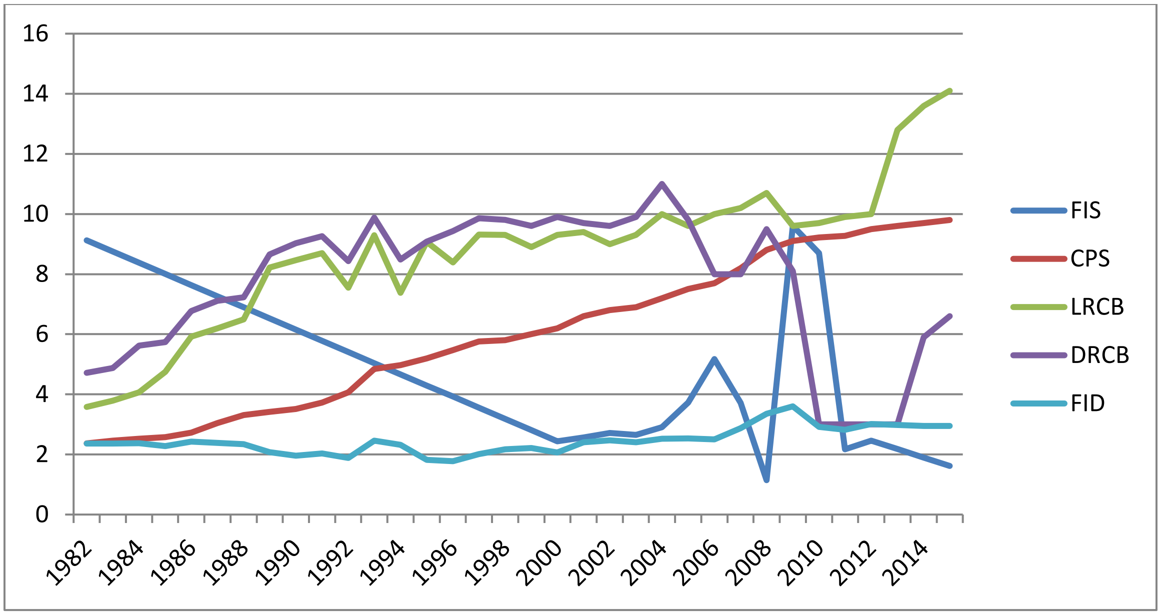


Source: fas.imf.org (2009)

Financial authorities in Nigeria have made some seeming progress in improving the financial service sector in Nigeria over the years, but, despite the efforts made by the government and monetary authorities to improve financial inclusion in Nigeria, the level of financial instability is still a puzzle and the level of financial development in Nigeria is still not satisfactory. Despite the efforts put in place at improving financial development and stability through the culture of financial inclusion, about 46.30% of the Total Population/Financial Access was still financially excluded, with 17.4% having informal access (figure 1), the rural areas were still disproportionately more excluded from financial services, the mass retail market, which have a combined monthly income of N590 billion, compared with N570billion monthly income for all other income groups, yet the former income group is not captured in the financial system.

Less than 20% of the populations in developing nations have access to formal financial services (Rosenberg, 1995; Robinson, 2011). It has also been argued that financial inclusion leads to many opportunities which include the integration of economically and socially excluded people into the formal economy. The figure below reviews the trends and the behavior of financial stability and financial development in Nigeria alongside some financial inclusion indicators;

Figure 3: Showing Trends in Financial Stability and some Financial Inclusion Indicators (1982-2015)



Source: CBN Statistical Bulletin and World Bank Data for Nigeria 2014.

The figure above shows the movement and trends in financial inclusion and financial stability. Where; FIS is Financial Stability, FID is Financial Development, CPS is Credit to Private Sector, LRCB is Loans and Advances of Rural Branches of Commercial Banks, DRCB is Deposits of Rural Branches of Commercial Banks. The CPS, LRCB and DRCB are some of the variables used to proxy financial inclusion.

From the above figure, we can observe that financial stability trended downwards from 1982-2000 and within these periods also, financial inclusion was improving although deposits from Rural branches of commercial banks was not very stable especially between 2004 and 2014. Financial stability is a condition in which the financial system-comprising of financial intermediaries, markets and market infrastructures- is capable of withstanding shocks and the unraveling of financial imbalances, thereby reducing the likelihood of disruptions in the financial intermediation process(ECB 2007). Despite the improvements and expansion in financial inclusion over the years, the Nigerian financial development conditions have improved also but at a slower rate, while financial stability has left many questions unanswered.

The question therefore arises on how there can still be a considerable level financial instability and poor financial development in the presence of large efforts to improve financial inclusion? Financial development requires financial literacy and financial access. Even though finance has been developed to some extent as shown in figure 3, the level of development and stability of finance in Nigeria when compared to the level of inclusion shows that there is a lot to achieve in the area of finance.

Against this background, the broad objective of this study is to investigate the impact of financial inclusion on financial stability in Nigeria. The remaining part of the paper is structured as follows: Section 2 captures review of literature, Section 3 details the methodological approach, section 4 presents the empirical results and discussion, while section 5 concludes the paper with some policy implications.

2. REVIEW OF LITERATURE

The contribution of financial inclusion on the economy has been tested by different researchers and economists using different econometric models and techniques, although the research works in the area of the impact of financial inclusion on financial development and financial stability are very scarce, as most of the works were done on financial inclusion and economic growth. For example, Sahu (2013) studied Commercial Banks, Financial Inclusion and Economic Growth in India. The objectives of the study were to understand the status of India‘s financial inclusion, in order to estimate the financial inclusion index for various states in India and to study the relationship between Financial Inclusion Index (FII) and Socio-economic Variables. It was found that 72.7% of India‘s 89.3 million farmer households were excluded from formal sources of finance. The Credit-Deposit ratios of foreign banks was 85.0%, regional rural banks was 59.9% and Private sector banks was 74.7% which had increased in 2011 from their levels in the previous year (72.9%, 58.3% and 72.7% respectively). No state in India belonged to high FIIgroup. Only two states namely Chandigarh and Delhi belonged to medium FII, while the rest of the states had low FII values.

Hirwa and Amatus (2014) carried out a study on financial inclusion and financial stability in Sub-Saharan Africa (SSA). The study used Generalized Method of Moments for dynamic panel data to explore such a relationship in 35 Sub-Saharan African countries for the period 2004-2011. The variables utilized in the study are bank-z score for financial stability; outstanding deposits with commercial banks for financial inclusion; and GDP per capita, inflation domestic credit provided to private sector by banks, and financial crisis are used as control variables. The empirical findings of the study showed that outstanding deposits with commercial banks negatively affect financial stability, which implies that deposit accounts held with the banks are less diversified in Sub-Saharan Africa. Also the empirical findings from the study show that outstanding loans from commercial banks have a positive relationship with financial stability.

In a different study, Joseph and David (2015) carried out an assessment of financial constraints on operations of county governments in Kenya. A descriptive cross-sectional census design was adopted. The target population comprised of all the 46 accounting/finance staff working with Nakuru county government. A structured questionnaire was first pilot tested to assess its reliability and validity before its administration in the main study. Both descriptive and inferential data analyses were conducted using SPSS. The findings indicated that there exist a positive, strong and statistically significant relationship between financial management skills and County Government operations.

Domestically, Saibu et al (2009) investigates whether changes in the financial structure or the overall financial systems explain economic growth dynamics in Nigeria using vector error correction model. The result of the study showed that changes in financial structure in Nigeria have no significant consequential effects on its real growth rate. The result of the study further revealed that despite the negative effect of financial market on economic growth, financial market has positive effect on stock market development hence suggesting that neither the financial market nor stock market based system is dominant factor on economic growth in Nigeria.Using a framework of a simple Solow growth model, Govind et al (2012) estimates the impact of financial inclusion on economic growth. The results of their study indicate that a 10% increase in financial inclusion has the potential to increase income per worker on average by 1.34%.

An empirical investigation of the financial reporting practices and banks' stability in Nigeria by Adeyemi and Asaolu (2013), examined the financial reporting practices among post consolidation banks in Nigeria and the subsequent stability of the banks.The study relied on secondary data collected through in-depth content analysis of published annual reports and accounts of 13 out of the 21 banks quoted on the Nigerian Stock Exchange between 2005 and 2009. Reporting practices by the banks were predicated on scores obtained from a Composite Disclosure Index (CDI) computed from a checklist from SASs and Prudential Guidelines' requirements. The results indicated a high level of compliance with the mandatory disclosure requirements for banks by scoring high on the CDI (mean in excess of 90%). In addition, the regression results showed that disclosure has a positive and significant influence on banks stability (as defined by ROA and liquidity). The study concluded that though compliance with the existing regulatory requirements was high, this has not removed the banks' exposure to internal weakness and consequent distress.

Segun and Onafowokan (2014) analyzed the level of financial inclusion in Nigeria and the extent to which Nigerians participate in the financial sector. The study explained the dimension of access to formal financial services, and identified the constraints to participation in financial inclusion. Using the method of questionnaire, they sampled Three Hundred and Twenty people from the seventeen states in the six-geo-political zones of Nigeria. The study found that though access to bank accounts is high, a majority of the respondents operate savings accounts. However, bank account ownership penetration ratio of 1.4 accounts to an adult including inactive accounts is very low.

Essentially, many empirical studies have been carried out to determine and evaluate the impact of financial inclusion on economic growth; but most of these studies are geared towards ascertaining the impact of financial inclusion on economic growth of Nigeria, or ascertaining the level of financial inclusion in Nigeria. None of these studies have reviewed the impact of financial inclusion on financial stability in Nigeria using bank Z-scores as measure of stability. To fill the gap therefore, this study is set to study the impact of financial inclusion on financial stability in Nigeria.

3. METHODOLOGY

In this study, we adopt the Ordinary Least Square (OLS) technique. The choice of this method is because it is mathematically much easier and simpler than some other methods and intuitively appealing (Gujarati, 2009). The OLS regression model can be extended to include multiple explanatory variables by simply adding more variables to the equation.

3.1 MODEL SPECIFICATION

The model is specified based on a priori economic theory and available information which are related to the impact of financial inclusion on financial stability.

Modeling the long run relationship between financial inclusion and financial stability and also the impact of financial inclusion on financial stability entails specifying the model below;

$$FIS = \beta_0 + \beta_1 LOGCPS_t + \beta_2 LOGDRCB_t + \beta_3 LOGFDI_t + \beta_4 LOGINV_t + \beta_5 LOGLRCB_t + \beta_1 LOGM2_t$$

Where: β_0, β_1, β_2, β_3, and β_4 are parameters.

LOG is Logarithm

Where:

FIS represents Financial Stability (Bank Z-scores): This is used as a proxy for financial stability. Bank Z-score is a financial statistic that measures the probability of bankruptcy in the banking sector. The Z-score is used to predict the likelihood that a company will go bankrupt. A company's z-score is calculated based on basic indicators found on its financial statements. Lower and negative Z-scores indicate a higher likelihood that a company will go bankrupt, whereas higher and positive scores indicate that a company will survive.CPS represents Credit to Private Sector. This refers to financial resources provided to the private sector, such as through loans, purchase of non-equity securities, trade credits and other accounts receivable, which establish a reclaim for repayment. DRCB means Deposits of Rural Branches of Commercial Banks. This is the total deposits from rural branches of commercial banks. It is a measure of financial inclusion because it these deposits will help us determine the accessibility of the rural dwellers (financially excluded) to finance. This informed its choice as a variable in the regression. It is expected that the variable should have a positive relationship with financial stability.

FDI stands for Foreign Direct Investment. Foreign Direct Investments includes 'mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations and intra company loans'. In a narrow sense, foreign direct investment refers just to building new facilities, a lasting management interest (10% or more of total voting stock) in an enterprise operating in an economy other than that of the investor. Foreign Direct Investment is the sum of equity capital, other long-term capital, and short-term capital as shown in the balance of payments. Foreign Direct Investment involves the use of finance. So the more foreign direct investments are on the increase, the more access to the use finance. So it expected that foreign direct investment would have a positive relationship with financial development.

INV is Domestic Investment. This results generally from acquiring an asset also called investment. If the asset is available at a price worth investing, it is normally expected either to generate income, or to appreciate in value, so that it can be sold at a higher price (or both). Investors generally expect higher returns from riskier investments, such as high-grade government bonds, with higher risk and higher expected commensurate reward, such as emerging markets stock investments. As investments increase, income will also increase and subsequently finance will develop as participation in the financial system is increased. Investment is expected to have a positive relationship with financial stability. LRCB represents Loans and Advances of Rural Branches of Commercial. This is the total amount of loans and advances of rural branches of commercial banks to the inhabitants in the rural areas. These loans and advances determine the level of access to finance by the rural dwellers (i.e. financially excluded). We expect the variable to have a positive relationship with financial development. M2 stands for Broad Money Supply. Money supply is a term used to refer to the amount of money that is currently in the economy. Increase in money supply comes with an increase in productive and economic activities. This will lead to financial access and increase the participation in the financial system. The access to finance combined with the increased participation in the financial sector will help improve the level of development in finance and subsequently stabilize the financial sector. Money supply is expected to have a positive relationship with financial stability.

4.1 REGRESSION RESULTS AND DISCUSSION

TABLE 1: UNIT ROOT TESTS

Variables	ADF Test Statistic	Phillips-Perron Test Statistic	Mackinnon Critical Value At 5%	Order of Integration
LOGCPS	-3.794815	-	-3.587527	I (0)
LOGDRCB	-4.935364	-	-3.557759	I (1)
LOGFDI	-5.360806	-	-3.562882	I (1)
LOGINV	-	-3.756454	-3.552973	I (0)
LOGLRCB	-7.949085	-	-3.557759	I (1)
LOGM2	-	-6.322057	-3.557759	I (1)

Source: Authors' Computation from Eview's Output

From table 1, it is observed that using ADF only LOGCPS is integrated at order zero I (0). This means that LOGCPS is integrated at level form and at lag length six (6). LOGDRCB, LOGFDI and LOGLRCB were integrated at order one I (1). This means that LOGDRCB, LOGFDI and LOGLRCB were integrated at first difference and at lag lengths zero (0), one (1) and zero (0) respectively. Furthermore, from Phillips-Perron LOGINV is integrated at order zero (0). This means that LOGINV is integrated at level form. LOGM2 is integrated at order one I (1). This means that LOGM2 is integrated at first difference and lag length three (3). Because the absolute values are greater than the critical values at 5% level of significance, we therefore conclude that all the variables (LOGCPS, LOGDRCB, LOGFDI, LOGINV, LOGLRCB and LOGM2) are stationary.

TABLE 2: REGRESSION RESULTS

VARIABLE	COEFFICIENT	STANDARD ERROR	T-VALUE	PROBABILITY
CONSTANT	-24.43862	16.24758	-1.504140	0.1442
LOGCPS	2.299893	2.397534	0.959274	0.3459
LOGDRCB	0.021990	0.165939	0.132516	0.8954
LOGFDI	0.553275	0.458673	1.206251	0.2382
LOGINV	2.341146	0.925258	2.530265	0.0164
LOGLRCB	-0.582641	0.263865	-2.208106	0.0359
LOGM2	-3.544331	2.502671	-1.416219	0.1681
R-squared			0.690093	
Adjusted R-squared			0.621225	
Durbin-Watson statistic			1.718834	
F-statistic			10.02048	

Source: Authors' Computation from Eview's Output

From table 2, the coefficient of the constant is (-24.43862). This shows that the dependent variable decreases by 24.43862 units on the average, when all the explanatory variables are held constant. This is however, not significant. The slope coefficient of credit to private sector is (2.299893). This shows a positive relationship between credit to private sector and financial stability of Nigeria. Holding all other explanatory variables constant, on the average, a one percent (1%) increase in credit to private sector will lead to a 2.299893% increase in financial stability of Nigeria. This variable conformed to a prior expectation. The reason is because the consistent increase in credit to private sector in Nigeria has opened up more channels for improved participation in the financial sector through investment and income. This is improved financial access and participation has increased the development of finance and subsequently stabilizes the economy. This can be used to explain the positive relationship between credit to private sector and financial stability. This result is in agreement with the work of Osuji and Chigbu (2012) when they investigated the impact of financial development variables on economic growth of Nigeria.

The coefficient of DRCB is (0.021990) which shows a positive relationship between the deposits of rural branches of commercial banks and financial stability in Nigeria. Holding all other explanatory variables constant, on the average, a one percent (1%) increase in the deposits of rural branches of commercial banks will result to an increase in financial stability by 0.021990%. This conforms to a prior expectation. The evidence from Nigeria show that the deposits of rural branches of commercial banks rose over the years up to as much N64 billion in 2004. This continuous increase in deposits shows the level of access and participation in the financial sector. As the level of financial access and participation in the financial sector increases, there will be development in finance and where this becomes consistent, there will be financial stability. This also explains the reason for the positive relationship between deposits of rural branches of commercial banks with financial stability in Nigeria. This result is not in agreement with the work of Onaolapo (2015), in his study on the effects of financial inclusion on economic growth. This result is also not in conformity with the work of Oyewo (2008) in his study of financial system, financial inclusion and economic development of Nigeria..

The slope coefficient of foreign direct investment is (0.553275). This shows a positive relationship between foreign direct investment and financial stability of Nigeria. Holding all other explanatory variables constant, on the average, a one percent (1%) increase in foreign direct investment will lead to a 0.553275% increase in financial stability. This variable conformed to a prior expectation. This is due to the fact that foreign direct investment (FDI) in Nigeria has risen tremendously in the last two decades as noted by UNCTAD in 2004. This influx of investment from abroad will increase financial sector participation because of the increased income that would result from increased investment by foreigners. The higher the financial access and participation the higher the level of financial development, and subsequently, lead to financial stability in the country. The positive relationship between foreign direct investment and financial stability of Nigeria can be largely attributed to the persistent increase in the amount of FDI inflow into Nigeria although there was a little decline in 2006.

The coefficient of investment is (2.341146). This shows a positive relationship between domestic investment and financial stability of Nigeria. Therefore, holding all the other explanatory variables constant, on the average, a one percent (1%) increase in investment will lead to an increase in financial stability by 2.341146%. This conforms to a prior expectation. This is because as investments keep increasing, it would reflect in the income of the individuals and improve their access to finance. Increased access to finances will also increase participation in the financial system, development of finance and financial stability. This is the reason for the kind positive relationship between investments and financial stability of Nigeria.

The coefficient of loans and advances of rural branches of commercial banks is (-0.582641). This implies a negative relationship between loans and advances of rural branches of commercial banks and financial stability of Nigeria. Therefore, holding all the other explanatory variables constant, on the average, a one percent (1%) increase in loans and advances of rural branches of commercial banks will result to a 0.582641% decrease in financial stability. This did not conform to a prior expectation. The reason in Nigeria is because some of the loans that are being issued are nonperforming. Nonperforming loans are loans that are not really put into active use when issued. The funds might be misappropriated or enter the wrong hands and this would hinder the participation of some of the populace in the financial sector and also deny some others access to finance. The ratio of nonperforming loans to gross loans in Nigeria has been very high since 1998 and rose to as much as 37.25% (World Bank Development Indicator, 2014). This has contributed to the general nonperformance of loans and is also responsible for the negative relationship between loans and advances of rural branches of commercial banks with financial stability. This result is not in agreement with the work of Oyewo (2008), in his study of financial system, financial inclusion and economic development of Nigeria.

The coefficient of money supply is (-3.544331). This implies a negative relationship between money supply and financial stability of Nigeria. Therefore, holding all the other explanatory variables constant, on the average, a one percent (1%) increase in money supply will result to a 0.582641% decrease in financial stability. This did not conform to a prior expectation. However, evidences from Nigeria show that there was a sharp surge in March 2015 by over 21% (CBN, 2014). The growth in M2 is usually associated with increased economic activity and can also be used to stimulate economic growth in event of a slowdown. The surge in Nigerian money supply was mainly as a result of quantitative easing (QE) by the CBN, which may become inflationary in the absence of any productive economic activity underpinning it. A huge rise in M2 may also cause a country's currency to lose value, such as the naira is currently experiencing. Growth in the first quarter of 2015 slowed to about 4% on annual basis compared with 5.9%, a quarter earlier (NBS, 2014). Inflation has also been rising touching a 6 months high of 9.2% in June. This situation of rising M2 amid falling growth is inflationary and a sign of stagflation which explains the negative relationship between money supply and financial stability of Nigeria. However this result is in contrast with the work of Osuji and Chigbu (2012) when they investigated the impact of financial development variables on economic growth of Nigeria.

RESULT FOR THE COINTEGRATION TEST

TABLE 3: RESULT FOR THE COINTEGRATION TEST

Variable Residual term μ_t	ADF Test Statistic	Critical values
	-6.217024	1% -4.273277 5% -3.557759 10% -3.212361

Source: Authors' Computation from Eview's Output

From the above table, we can observe that the error term is stationary at 5% level of significance since /-4.201927/>/-3.557759/.

Conclusion

Since the ADF test statistics is greater than the ADF critical value at 5% level of significance, we reject the null hypothesis and thus conclude that there exist a long run relationship between the dependent and independent variables. This implies that FIS, LOGCPS, LOGDRCB, LOGFDI, LOGINV, LOGLRCB and LOGM2are all co integrated at lag length one (1) and at level form.

4.2 ECONOMIC IMPLICATION OF THE FINDINGS

From the results, the researchers found that a one percent (1%) increase in credit to private sector will lead to a 2.29% increase in financial stability holding other variables constant. This implies that Nigeria should pursue and adopt policies that would increase the flow of credit to the private sector and its usage should also be monitored to make the impact more significant on investment and subsequently improve the level of financial stability in the economy. It is also seen that deposits of rural branches of commercial banks have a positive relationship with financial stability. That is, holding all other explanatory variables constant, a one percent (1%) increase in the deposits of rural branches of commercial banks will result to an increase in financial stability by 0.02%.Therefore, policies should be made to encourage financial access and participation in the financial system through interest rate policies. This would help motivate individuals to get involved in the financial system as they proceed to deposit money banks to save deposits with them.

Foreign direct investment has a positive relationship with financial stability of Nigeria. Holding every other variable, it implies that a one percent (1%) increase in foreign direct investment will lead to a 0.55% increase in financial stability. Therefore government should adopt policies that would make the local economy become attractive for investment and thereby result to influx of foreign income. Investments have a positive relationship also with financial stability. This implies that, a one percent (1%) increase in investment will lead to an increase in financial stability by 2.34%, holding all other variables constant. Since the level of investment is high and is a very significant variable affecting financial stability, government should adopt policies that would stimulate domestic investments.

Moreover, loans and advances of rural branches of commercial banks have a negative relationship with financial stability. It implies that a one percent (1%) increase in loans and advances of rural branches of commercial banks will result to a 0.58% decrease in financial stability of Nigeria, holding all other variables constant. This did not conform to a prior expectation because of nonperformance of loans. Therefore policies should be formulated to improve the efficiency in the financial system. Finally, money supply has negative relationship with financial stability. This implies that a one percent (1%) increase in money supply will result to a 0.58% decrease in financial stability of Nigeria, holding every other thing constant. Therefore, policies should be formulated to ensure that increase in money supply subsequently result to increase in economic activities.

5. POLICY RECOMMENDATIONS AND CONCLUSION

The main aim of the study was to estimate the impact of financial inclusion on financial development and financial stability of Nigeria covering a period of 1982-2019.

A number of policy lessons could be deduced from the results obtained from the study. One of such lessons is that the result from the study shows that money supply has a negative impact on the financial stability of Nigeria. So we can learn from this that increase in money supply may not necessarily stabilize the financial system except the increase in money supply is consistent with policies that would stimulate productive and economic activities. Therefore, government should formulate and enact policies that would not only increase money supply but also foster economic activities. This will be necessary in improving the level of financial stability in the economy because it will help increase financial access and active participation in the financial sector.

Furthermore, loans and advances of rural branches of commercial banks have a negative influence on the financial stability of Nigeria. This implies that the level of financial stability will be reduced if the volume of loans and advances are on the increase. However, from evidences in Nigeria, we could conclude that the reason for this kind of relationship is the high level of non-performance of issued loans. Therefore, when the government is formulating policies that will improve and stabilize the financial sector, they should consider policies that will monitor the performance of issued loans.

Again, the government (through the monetary authorities) should also formulate policies that will stimulate productive and economic activities. This will help avoid the loss in the value of the country's currency. Furthermore, the government of Nigeria through the Financial Policy and Regulatory department in the Central Bank of Nigeria (CBN) should provide the strategic lead on financial inclusion issues. The relevant departments should also be saddled with the responsibility of investing heavily on research programs that would help improve financial education and protection. Finally, the government should create a favorable environment for consumers and operators in the financial system to relate and interact in a mutually beneficial way. This would enable them to operate more profitably through lending and eventually grow leading to expansion of banking services.

5.1 CONCLUSION

This paper investigates the impact of financial inclusion on financial stability of Nigeria. Evidence from the results show that financial stability was not affected negatively by deposits of rural branches of commercial banks, despite the fall in the volume of deposits in the mid 2000s. Also, we can see from the results obtained that investments are a very significant variable that determines the level of financial stability in Nigeria. This shows that investments are more significant in determining the level of financial stability than most other financial inclusion indicators. It is therefore very imperative that policies should be directed towards creating more investment opportunities and inclusive financial system to improve the current level of financial inclusion, so as to achieve better financial stability in Nigeria.

REFERENCES

Adelakun, O. J. (2010), "Financial Sector Development and Economic Growth in Nigeria". Department of Economics, Joseph Ayo Babalola University, Ikeja-Arakeji, Osun State, Nigeria. *International Journal of Economic Development Research and Investment (IJEDRI), 1(1): 25-31.*

Adeyemi A. A. and Asaolu T. (2013), "An Empirical Investigation of the Financial Reporting Practices and Banks' Stability in Nigeria". *Kuwait Chapter of Arabian Journal of Business and Management Review(KCAJBMR), 2(5): 157-166.*

Adrian A. and Boriana Y. (2015), "Financial Inclusion and Development in the CEMAC". *International Monetary Fund (IMF) Working Paper (15): 235.*

Angela S. E., Ini S. U., Audu S., Ngozi V. A. and Baba N. Y. (2014), "Developing Banking System Stability Index for Nigeria*". CBN Journal of Applied Statistics(CBNJAS), 5(1): 49-58.*

Burton G. M. (2003), "The Efficient Market Hypothesis". Princeton University. *CEPS Working Paper (9)1, 2013.*

Chekwube M., Anne M., Chibuike O. and Chukwunonso E. (2014) "Financial Development and Economic Growth in Nigeria: A Reconsideration of Empirical Evidence". *Journal of Economics and Sustainable Development (JESD), 5(8): 199-201.*

Folorunsho O. I. (2012), "Financial Development and Economic Growth: Empirical Evidence from Nigeria". School of Post-Graduate Studies, Department of Economics and Developmental Studies, Covenant University, Ota, Ogun State, Nigeria.

Franklin A. and Anthony M. S. (1998), "The Theory of Financial Intermediation". *Journal of Banking and Finance (JBF), 21(1998):1461-1485.*

Garba S. B.(2014), "Financial Sector Development and Economic Growth in Nigeria: An Empirical Investigation". *International Journal of Finance and Accounting (IJFA), 3(4): 253-265.*

George A., George M. and Justice T. M. (2013), "Financial Development and Economic Growth in Ghana: Does the measure of Financial Development matter?" *Review of Development Finance 3(2013): 192-203.*

Hirwa A. and Nasiri A. (2015), "Financial Inclusion and Financial Stability in the Sub-Saharan Africa (SSA)". *The International Journal of Social Sciences (IJSS), 36(1): 39-43.*

John R. G. and Campbell R. H. (2001), "The theory and practice of corporate finance: Evidence from the field" *Journal of Financial Economics (JFE),61(2001): 000-000.*

Joseph M. W. and David N. (2015) "Assessment of Financial Constraints on Operations of Conty Governments in Kenya: A Case of Nakuru County". *International Journal of Economics, Commerce and Management (IJECM), 3(5):25-27.*

Josiah A. and Elizabeth K. (2012), "Financial Inclusion and Financial Sector Stability With Reference To Kenya: A Review of Literature" *Journal of Applied Finance and Banking (JAFB), 2(6): 95-120.*

Kama U. and Adigun M. (2013), "Financial Inclusion in Nigeria: Issues And Challenges". Research Department, Central Bank of Nigeria. *Occasional paper(45): 5-35*.

Magdalena P. and Elena M. M. (2013), "Measures of Financial Stability in Macedonia". *Journal of Central Banking Theory and Practice (JCBTP): 85-110.*

Mbutor O. M. and Ibrahim A. U. (2013) "The Impact of Financial Inclusion on Monetary Policy in Nigeria". Research Department, Central Bank of Nigeria. *Journal of Economics and International Finance (JEIF), 5(8): 318-326.*

Monetary and Capital Markets Department (2014), "Financial System Stability Assessment in Morocco"*IMF Country Report, (14): 37.*

Monetary and Capital Markets Department (2015), "Financial System Stability Assessment in the Democratic Republic of Congo"*IMF Country Report, (14): 315.*

Onaolapo A. R. (2015) "Effects of Financial Inclusion on the Economic Growth of Growth". Department of Management and Accounting, Faculty of Management Sciences, Ladoke Akintola University of Technology, Ogbomoso, Nigeria. *International Journal of Business and Management Review (IJBMR), 3(8): 11-28.*

Oscar C., Ruramayi T. and Brian M. (2013) "Financial Inclusion and Financial Stability: The Important Role of Financial Regulation in Explaining the Relationship. Empirical Review". *Journal of Research in International Business and Management (JRIBM), 3(4): 139-149.*

Osuji C. C. and Chigbu E. E. (2012), "An Evaluation of Financial Development and economic Growth of Nigeria: A Causality Test". *Kuwait Chapter of Arabian Journal of Management Review(KCAJBMR), 1(10): 27-29.*

Oyewo, B. M. (2008), "Financial system, Financial Inclusion and Economic Development in Nigeria". School of Business, Department of Accounting, Covenant University, Ogun State, Nigeria.

Samuel M. N. and Emeka J. O. (2009), "Financial Deepening and Economic Development of Nigeria: An Empirical Investigation". *African Journal of Accounting, Economics and Banking Research (AJAEFBR), 5(5): 52-55.*

Segun A. and Onafowokan O. (2014), "The Economy of Financial Inclusion in Nigeria: Theory, Practice and Policy". The Chartered Institute of Bankers of Nigeria, Lagos, Nigeria and Department of Financial Studies, Redeemers University, Ogun State, Nigeria.

Ugbaje D. O. and Ugbaje H. E. (2014) "Empirical Study of Financial Sector Development on Economic Growth in Nigeria". *International Journal of Public Administration and Management Research (IJPAMR), 2(3): 122-137.*

Umejiaku R. I. (2011), "Financial Reforms and Financial Development in Nigeria: A Graphical Analysis" Department of Economics, University of Jos. *An International Multi-Disciplinary Journal (IMJE), Ethiopia, 5(3): 247-260.*

Victor E. O. and Samuel J. E. (2014), "An Empirical Assessment of Financial Sector Development and Economic Growth in Nigeria". *International Review of Management and Banking Research (IRMBR), 3(1): 139-144.*