THE EFFECT OF MACROECONOMIC VARIABLES ON FINANCIAL SECTOR DEVELOPMENT IN NIGERIA

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Abstract

This paper examines the macroeconomic variables that affect financial sector development (FSD) in Nigeria. The aim of the paper is to analyse whether inflation, money supply, financial openness, trade openness and government expenditure significantly affects FSD in Nigeria. The period covered by the study is 1984-2017. The data was analysed using Auto Regressive Distributive Lag (ARDL) model. Ratios of private sector credit (PSC) to GDP was used as proxy of FSD. The results revealed that money supply, interest rate, financial openness and inflation significantly explain FSD in Nigeria. The study recommends a closer monitoring, formulation of adequate policies and creating sustainable institutions to take advantage of the benefits of these significant determinants by the relevant authorities especially trade and financial openness.

Keywords: Financial Sector Development, Financial Openness, Trade Openness, Inflation, ARDL

1. Introduction

The role of any efficient financial system is to channel funds from surplus to deficit units to finance the best firms and investment projects. However, in practice this is not always the case because mostly large firms tend to get funds while small and medium sized enterprises (SMEs) are left to rely on informal sources of finance. The predominant view on financial sector development (FSD) is that it increases the accessibility to financial instruments and institutions which decreases transaction cost thereby channeling funds to efficient economic agents who can use it to invest in both human and physical capital thereby stimulating economic growth. (Schumpeter,1961; Mckinon,1973; Shaw,1973).

To stimulate FSD government sets the necessary conditions and policy measures that are essential by adopting key macroeconomic policies which are conducive for FSD and these includes financial openness, inflation rates, government expenditure and monetary policy efficiency measures.

The macroeconomic policy goal is to provide a stable economic environment that is conducive to foster the creation of jobs, wealth and improved living standards. The primary goal of monetary policy in Nigeria is the maintenance of domestic price and exchange rate stability as a critical condition for the achievement of sustainable economic growth and external viability.

Policies like financial openness allows more efficient allocation of resources by various economic agents while trade openness decreases the ability of interest groups to influence those in power to churn out policies that will favor their cause but is detrimental to FSD. These policies reduce inefficiency, improve transparency and foster a competitive environment. Interest rate raises money supply when interest rates are reduced, this in turn will subsequently affect consumption and investment.

These policies such as: Trade Openness, Inflation, Interest rate, Exchange rate, Broad Money Supply and Financial Openness have been documented to promote FSD (Baltagi, 2007; Shaheen , 2011; Rachdi and Mensi, 2012; Takyi and Obeng, 2013) hence it is imperative to understudy which of these variables are actually responsible for FSD in

Nigeria. However, most existing literature on determinants of FSD focused mainly on cross country analysis for example Dehesa (2007) provided a cross-country empirical analysis of the determinants of financial deepening using a panel of 120 countries.

The objective of this paper is to investigate the effect of macroeconomic variables on FSD and whether these macroeconomic determinants identified by the standard literature are valid in a developing country like Nigeria.

2. Review of related Literature

FSD simply put is the financial system that eases market imperfections. An economy experiences FSD when financial instruments, markets, and intermediaries mitigate the effects of imperfect information, limited enforcement, and transactions costs (Čihák, Demirgüç-Kunt, Feyen, & Levine, 2013). However, defining FSD in terms of the degree to which the financial system eases market imperfections is too narrow and does not provide much information on the actual functions provided by the financial system to the overall economy.

A robust definition of FSD ought to incorporate the four measures of an efficient financial system (1) size of financial institutions and markets (financial depth), (2) degree to which individuals and firms can and do use financial services (access), (3) efficiency of financial intermediaries and markets in intermediating resources and facilitating financial transactions (efficiency), and (4) stability of financial institutions and markets (stability).

2.1 Macroeconomic Variables and Financial Sector Development

Boyd and Smith (2001) concentrated on the links between sustained inflation and financial sector performance in their study. Data set for a maximum of 97 countries and covers the period 1960-1995 is used. They argued that increases in the rate of inflation hinder the ability of the financial sector to allocate resources effectively. In the study, the evidence indicates that there is a significant, and economically important but negative relationship between inflation, banking sector development and equity market activity. Moreover, it is stated that the negative relationship is nonlinear and as inflation rises, the marginal impact of inflation on bank lending activity diminishes rapidly. In addition to this, Boyd and Smith point out that there are thresholds, that is, for economies in which inflation exceeds 15 percent, there is a significant drop in financial sector performance.

Chinn and Ito (2005) examined what matters for FSD with particular focus on capital controls, institutions and interaction. This study used panel data for the period of 1980-2000 for 108 countries. Capital openness as a measure of financial openness was measured using the Chinn-Ito index and it is based on binary dummy variable. They test the impact of financial openness of FSD; the result showed that high level of financial openness contributed to the development of equity markets only if a threshold level of general legal system and institutions is attained. They also opined that governance quality, law and order as well as low levels of corruption increase the positive effects of financial openness on FSD. The study just like Boyd and Smith 2001 also focused only on a macroeconomic variable's impact on FSD

Employing more explanatory variables than previous studies, Naceur, Ghazouani, and Omran (2007) investigated the determinants of FSD in the Middle-East and Northern Africa (MENA) region, for the period of 1960-2006. They group the variables used in the study into three: the first group consisted of macroeconomic variables, the second was openness of the economy and the third group was for institutional factors. Macroeconomic variables included GDP per capita, inflation, the ratio of government consumption to GDP, savings and investment. Openness variables included were defined as commercial and capital account liberalisation measures. They included the ratio of exports plus imports to GDP as trade openness, and the ratio of capital inflows to GDP. FSD was quantified using both liquid liabilities as a ratio to GDP and the ratio of bank credit to private sector to GDP. The results show that banks and non-bank institutions are affected. Macroeconomic factors such as investment rates, inflation, savings, trade openness and financial liberalisation arwere found to be key determinants of FSD, especially to the banking sector.

Dehesa (2007) provided a cross-country empirical analysis of the determinants of financial deepening using panel data set for 120 countries between 1997 and 2004. The analysis suggested that in a high inflation environment, controlling inflation and reducing macroeconomic volatility should be given a priority. Padachi, Seetanah and Rojid (2008) suggested that inflation is negatively related to banking sector development in the long-run, which is in line with the threshold effect findings of Boyd and Smith (2001). Sogut (2008) suggests that for low income countries FSD is positively related to public sector credits and inflation while in high income countries the relationship between FSD and inflation was adverse. In middle income countries the impact of real GDP and public sector credit was positive.

Benyah (2010) investigated what determines FSD in African countries, making use of cross sectional data and panel data techniques, for the period of 1975-2006. FSD is quantified by a banking sector indicator, liquid liabilities (M3), while the explanatory variables were trade openness, financial openness and GDP growth rate. Trade openness is measured as sum of exports and imports as ratio of GDP and financial openness is measured as sum of foreign assets and liabilities as a ratio of GDP. The cross sectional regression results showed that there is a positive relationship between trade openness and FSD. GDP growth rate and financial openness are not statistically significant in explaining FSD. The panel regression results also showed that trade openness is important in explaining FSD, and financial openness negatively influences FSD however, GDP growth rate is insignificant. A significant draw back in the study is the use of a single proxy as a measure of FSD.

Raza, Shahzadi, and Akram (2014) investigated the determinants of FSD for 27 developed and 30 developing countries using Credit to private sector as the only proxy for FSD for the period 1990-2012. Employing panel Fixed Effect Model they analysed how different variables affect FSD. They found that in all countries analysed population growth, share of agriculture sector in GDP, Real GDP growth, trade openness as percent of GDP, net foreign direct investment as percent of GDP, government spending as percent of GDP, Dem index of democracy, and index of rule of law are determinants of FSD. Using ratio of private credit to GDP only captures the size of a bank's loan book relative to the economic output, but it says nothing about FSD beyond banks ignoring other sectors.

2.2 Theoretical basis

This study hinges on financial liberation theory to explain the effect of macroeconomic variables on FSD. According to financial liberalization theory, deregulating the domestic financial market and allowing the market to define the interest rate and controlling the capital i.e., credit, will help in macroeconomic stability and economic growth of countries. This theory is well explained by McKinnon (1973) and Shaw (1973), who explain that financial liberalization can promote economic growth by increasing investments and productivity. They both argued that FSD can be hindered by government restrictions on the operation of financial systems, such as interest rate ceilings, directed credit programs, reserve and liquidity requirements and these may contrarily affect the quality and quantity of investment. They are of the view that higher real interest rates would stimulate savings and the increased saving rate would finance a higher level of investment. Overall, financial liberalization is expected to contribute to the efficiency with which markets can transform savings into investments and growth. Hence, according to this view, we should expect, investment and saving rates, as well as financial development. Financial liberalization could be beneficial if it results in greater savings, reduction in cost of capital and adoption of improved governance practices (Mandel, 2009).

3. Methodology

Data form the Central Bank of Nigeria Statistical Bulletin and the Chi and Ito Kaopen Index was used in the analysis. This study used Bounds testing approach to Co-integration employed within the framework of Autoregressive Distributed Lag model (ARDL) developed by Pesaran and Shin, (1999) as it can be applied without considering the same order of integration of all variables i.e. either they are integrated of order I(0), I(1) or of mixed order. The bounds test approach proposed and enhanced by Pesaran, Shin, and Smith, (2001) shall be based on unrestricted

ECM. Compared to other cointegration procedures such as Engle and Granger (1987) and Johansen and Juselius (1990), the bounds test approach appears to have gained popularity in recent times and ARDL have superiority on other co-integration techniques for a number of reasons.

Following the standard literature of Takyi and Obeng (2013), Ayadi (2013) and Bitterncourt (2008), the economic model for financial development is specified as error correction model (ECM) within the ARDL framework. The specified ARDL-ECM model shall be used to test the hypothesis raised in form of short-run dynamics as follows:

$$\Delta FSD = \alpha_0 + \sum_{i-1}^{a} \alpha_1 \Delta FSD_{t-i} + \sum_{i-1}^{b} \alpha_2 \Delta M2_{t-i} + \sum_{i-1}^{c} \alpha_3 \Delta EXR_{t-i} + \sum_{i-1}^{d} \alpha_4 \Delta INT_{t-i} + \sum_{i-1}^{e} \alpha_5 \Delta TO_{t-i} +$$

$$\sum_{i-1}^{f} \alpha_6 \Delta FO_{t-i} + \sum_{i-1}^{g} \alpha_7 \Delta TGE_{t-i} + \sum_{i-1}^{g} \alpha_8 \Delta INF_{t-i} + \delta ECT_{-1} + \varepsilon_t$$

Where:

ECT_{-1}= ECT is the error correction term and *the coefficient* represents the speed of adjustment back to long-run equilibrium after a shock or disturbance.

FSD_{t-i} = lag of financial sector development in time *t* proxied by PSC/GDP and TMC/GDP

FO_{t-i} = Financial openness

$M2_{t-i}$ = Broad money supply

TGE_{t-i} = Total Government expenditures

EXR_{t-i} = Exchange rate

INF_{t-i} = Inflation rate

TO_{t-i} = Trade openness.

INT_{t-i} = interest rate. This is measured using the prime rate.

4. Results and Discussion

Unit Root Test

The Augmented Dickey-Fuller (ADF) was used to test and verify the unit root property of the series and stationarity of the model.

The ADF tests here consist of estimating the following regression:

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \Delta Y_{t-1} + \varepsilon_t$$

Where:

$\Delta Y_t = Y_t - Y_{t-1}$

$\Delta =$ First difference operator

$\Delta Y_{t-1} = Y_{t-1} - Y_{t-2}$

$\delta = \rho - 1$

$\varepsilon_t =$ White noise error term

$\rho =$ Rho $-1 \leq \rho \leq 1$

The t value of the coefficient of Y_{t-1} (that is δ) in the equation 5 follows the $r(tau)$ statistic. The acceptance of the null hypothesis that shows the presence of unit root or non-stationarity follows that if $r(tau)$ calculated statistic is less than the critical r values of tabulated, then we conclude that the times series variable involved is not stationary.

Table 1: Summary of Unit Root Test Results

Variables	ADF Test Statistic	Order of Integration
EXR	-4.955478(-4.339330)*	*I(1)*
FO	-3.691479(-3.595026)**	*I(1)*
INF	-4.366029(-3.612199)**	*I(1)*
INT	-5.3022504(-4.323979)*	*I(0)*
M2	-3.243191(-3.229230)***	*I(1)*
TGE	-6.855423(-4.339330)*	*I(1)*
PSC_GDP	-3.333637(-3.229230)***	*I(0)*
TMC_GDP	-5.684145(-4.339330)*	*I(1)*
TO	-5.189436(-4.323979)*	*I(0)*

Source: Authors Computation, (Eview-9.0): Note: MacKinnon critical values for the rejection of hypothesis of unit root are in parenthesis in Columns 1 and 2 and the tests include intercept with trend; ** significant at 1%; ** significant at 5%;*** significant at 10; Mackinnon critical*

Results seen in the table shows that EXR, FO, INF, M2, TGE TMC_GDP stationary at first difference while INT, PSC_GDP, TO were found stationary at levels at order *I(0).*

Hypotheses *H_0: Macroeconomic variables (proxied by interest rate, exchange rate, inflation, monetary policy, trade openness) have no significant impact on financial sector development in Nigeria.*

A. Estimated Long Run Model

Here, macroeconomic determinant of financial development model is estimated using ARDL model and the result is presented in the table 2:

Table 2: Estimated Long Run Coefficients Using the ARDL Approach

Estimated Long Run Coefficients Using the ARDL Approach ARDL (3,2,2,2,2,2,2,0) Selected based on Akaike info criterion (AIC)

Dependent variable is FSD

Regressor	Coefficient	Std. Error	t-Statistic	Prob.*
FSD(-1)	0.219979	0.068756	3.199431	0.0494*
FSD(-2)	-0.578799	0.079216	-7.306551	0.0053*
FSD(-3)	0.346405	0.101905	3.399304	0.0425*
M2	2.73E-06	7.40E-07	3.686293	0.0346*
M2(-1)	8.66E-06	1.41E-06	6.124697	0.0088*
M2(-2)	-7.76E-06	9.78E-07	-7.931137	0.0042*
EXR	-0.011410	0.029381	-0.388360	0.7237
EXR(-1)	-0.050890	0.030914	-1.646166	0.1983
EXR(-2)	0.029778	0.019458	1.530413	0.2234
INT	-0.210716	0.083787	-2.514906	0.0866**
INT(-1)	0.336977	0.101086	3.333568	0.0446*
INT(-2)	0.150791	0.090629	1.663836	0.1947
TO	0.687401	3.865324	0.177838	0.8702
TO(-1)	5.913255	4.638787	1.274742	0.2922
TO(-2)	2.900625	3.709707	0.781901	0.4913
FO	6.931464	1.629160	4.254625	0.0238*
FO(-1)	-0.376724	1.579676	-0.238482	0.8269
FO(-2)	4.633091	1.464905	3.162725	0.0508**
TGE	0.001903	0.001515	1.256011	0.2980
TGE(-1)	-0.003288	0.003138	-1.047688	0.3717
TGE(-2)	-0.012347	0.002879	-4.288939	0.0233*
INF	-0.105799	0.022572	-4.687160	0.0184*
Constant	15.16224	3.896401	3.891344	0.0301*
R Squared	0.998073	Adjusted R-Squared	0.983940	
S.E. of Regression	0.932420	F-statistic (Prob.)	70.62244 (0.002372)	

Diagnostic Tests

Test Statistics	LM Version
A. Serial Correlation	X^2_{auto} = 12.45111 (0.1965)
B. Functional Form (Ramsey Reset)	X^2_{RESET} = 0.693830 (0.5595)
C. Normality	X^2_{Norm} = 19.13960 (0.0000)
D. Heteroscedasticity	X^2_{Het} = 0.817403 (0.6752)

Source: Author's computation Obtained from E-views 9

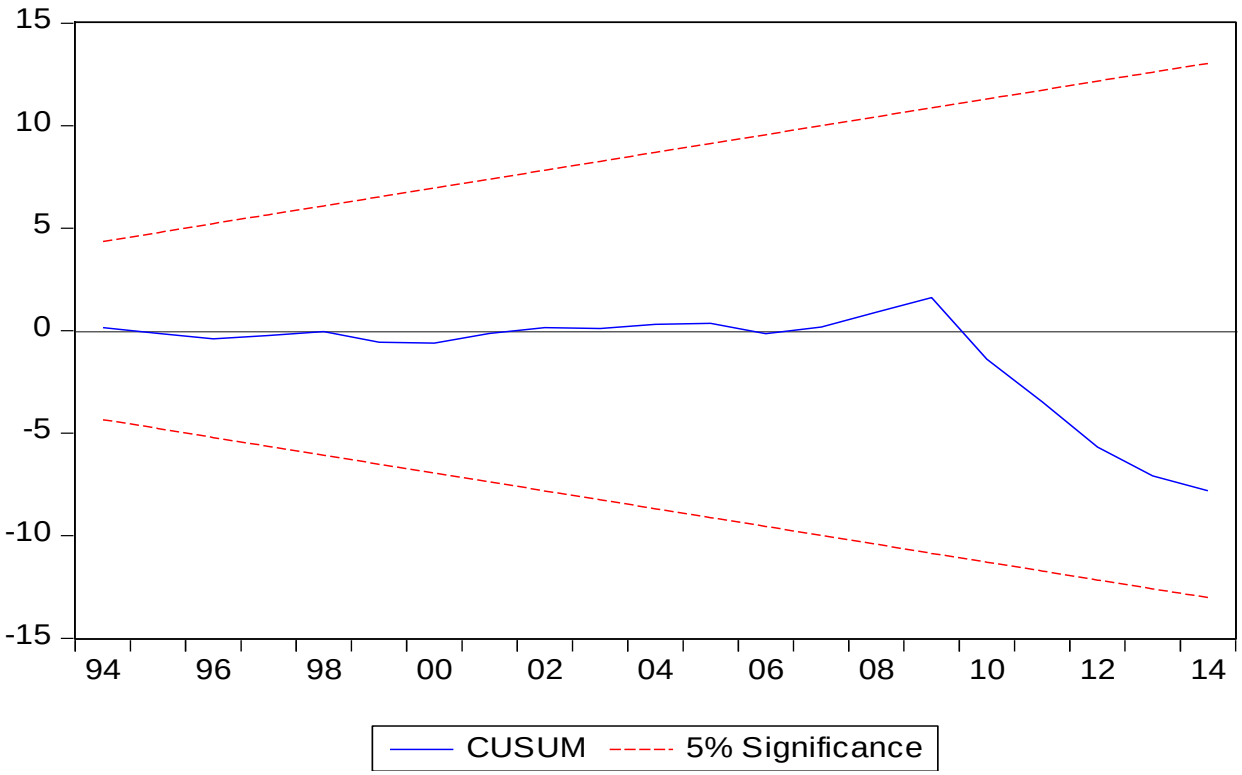
Note: ** and * indicate significance at 1% and 5% level of significances. Figures in parenthesis are probability values. A is Breusch-Godfrey Serial Correlation LM Test, B is Ramsey's RESET test, C is Normality Test, D is Heteroscedasticity test.

The result presented above shows the estimated long run model of the effect of macroeconomic variables on FSD in Nigeria. All the explanatory variables in their first lags are in line with the apriori expectation as money supply, trade openness, financial openness and total government expenditure depicts positive relationship with the FSD, while exchange rate, interest rate, and inflation shows negative relationship with FSD. However, the result revealed the first three lags of FSD, money supply and its first and second lag, interest rate and its first lag, financial openness and its second lag as well as inflation significantly explain FSD in Nigeria at 5% level of significance. While, exchange rate, trade openness and total government expenditure are not significant. It then means that, a unit increase or decrease in each of these variables according to their relationship with the FSD will lead to their respective coefficients values' increase or decrease in the FSD in Nigeria.

In the same vein, the coefficient of determination (R^2) shows that 99% of the variations in the financial sector development is explained by the explanatory variables even after taking into consideration the degree of freedom, the adjusted coefficient of determination (adjusted R^2) still shows that, 98% variation in the FSD is explained by the explanatory variables. The F-statistic 70.62244(0.002372) confirmed the fitness of the coefficient of determination and shows an overall significant level of the explanatory variables jointly in explaining FSD.

Also, the outcome of this result can be tested using some diagnostic tests such Breusch-Godfrey Serial Correlation LM Test, Ramsey's RESET test, Normality Test and Heteroscedasticity test. The result of these tests as presented in table 2 show that, the model passes all the diagnostic tests except that of the normality test. The diagnostic tests applied to the model point out that there is no evidence of serial correlation and heteroscedasticity. Besides, the RESET test implies the correctly specified ARDL model. Only the skewness and kurtosis of residuals based on normality test shows that the residuals are not normally distributed.

The stability of the regression coefficients is tested using the cumulative sum (CUSUM) and the cumulative sum of square (CUSUMSQ) of the recursive residual test for structural stability. Plots of the CUSUM and CUSUMSQ shows that the regression equation seems stable given that neither the CUSUM nor the CUSUMSQ test statistics go beyond the bounds of the 5% level of significance.



Source: Author's Plot

Figure 1: Stability (CUSUM) Tests

B. ARDL Bounds Test Approach to Co-integration

The bound test approach to co-integration seeks to confirm if there is long run relationship among the variables in the model. This is done by testing if their coefficients are equal to zero in our estimated model or not. The F-Statistic value from the bound test and the critical value bounds as revealed by the result given by E-views 9 is presented in table 3:

Table 3: ARDL Bounds Test Result

Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	51.51804	7
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.03	3.13
5%	2.32	3.5
2.5%	2.6	3.84
1%	2.96	4.26

Source: Author's computation Obtained from E-views 9

ARDL bounds F test results are reported in Table 3 above shows that the result confirms the presence of a long run relationship with FSD as the dependent variable of the model for the period under consideration in Nigeria. This is because the calculated F statistic is 51.51804 is greater than upper critical values at 1%, 5% and 10% significance level, and thus, inferring that there exists a co-integrating relationship among the time series in the level form, without considering whether they are I(0) or I(1). In other words, the Null hypothesis of no cointegration can be rejected at the 1%, 5% and 10% significance levels because F test statistic is greater than the critical upper bounds value I(1).

C. Short Run Dynamics and Error Correction Representation of ARDL Cointegrating

After confirming the existence of a long-run relationship among the variables, it is pertinent to estimate both the error correction mechanism form of the model together with its long run form. Error correction model was first used by Sargan (1964) and after this popularized by Engle and Granger (1987).

Also, the diagnostic tests were examined from the unrestricted error correction (bounds test) model. These include Lagrange multiplier test of residual serial correlation, Ramsey's RESET test using the square of the fitted values for correct functional form (no mis-specification), Jarque-Bera normality test based on the skewness and kurtosis measures of the residuals and Breusch-Godfrey heteroscedasticity test based on the regression of squared residuals on the original regressors of the model.

The results presented in table 4 suggest that the sign of the coefficient associated with each variable do not differ in the long and in the short-run, when the same is statistically significant. It shows that the second lags of FSD, money supply and its first lag, interest rate, financial openness and its first lag as well as inflation significantly explain FSD in Nigeria at both 5% and 10% level of significance. While, exchange rate, trade openness and total government expenditure are not significant determinants of FSD in Nigeria. It then means that, a unit increase or decrease in

each of these variables according to their relationship with the financial sector development will lead to their respective coefficients values' increase or decrease in the financial sector development in Nigeria.

Table 4 Estimated Short Run Dynamics and Error Correction

Estimated Short Run Dynamics Error Correction Representation of ARDL (3,2,2,2,2,2,2,0) Selected based on Akaike info criterion (AIC)

Dependent variable is FSD

Regressor	Coefficient	Std. Error	t-Statistic	Prob.*
D(FSD(-1))	0.232394	0.113311	2.050947	0.1326
D(FSD(-2))	-0.346405	0.101905	-3.399304	0.0425*
D(M2)	0.000003	0.000001	3.686293	0.0346*
D(M2(-1))	0.000008	0.000001	7.931137	0.0042*
D(EXR)	-0.011410	0.029381	-0.388360	0.7237
D(EXR(-1))	-0.029778	0.019458	-1.530413	0.2234
D(INT)	-0.210716	0.083787	-2.514906	0.0866**
D(INT(-1))	-0.150791	0.090629	-1.663836	0.1947
D(TO)	0.687401	3.865324	0.177838	0.8702
D(TO(-1))	-2.900625	3.709707	-0.781901	0.4913
D(FO)	6.931464	1.629160	4.254625	0.0238*
D(FO(-1))	-4.633091	1.464905	-3.162725	0.0508**
D(TGE)	0.001903	0.001515	1.256011	0.2980
D(TGE(-1))	0.012347	0.002879	4.288939	0.0233*
D(INF)	-0.105799	0.022572	-4.687160	0.0184*
CointEq(-1)	-0.012415	0.122271	-8.280058	0.0037*

Diagnostic Tests

Test Statistics	LM Version
A. Serial Correlation (0.1965)	X^2_{auto} = 12.45111
B. Functional Form (Ramsey Reset) (0.5595)	X^2_{RESET} = 0.693830
C. Normality (0.0000)	X^2_{Norm} = 19.13960
D. Heteroscedasticity (0.6752)	X^2_{Het} = 0.817403

Source: Author's computation Obtained from E-views 9

Note: ** and * indicate significance at 1% and 5% level of significances. Figures in parenthesis are probability values. A is Breusch-Godfrey Serial Correlation LM Test, B is Ramsey's RESET test, C is Normality Test, D is Heteroscedasticity test.

The outcome of this result was confirmed using diagnostic tests such as Breusch-Godfrey Serial Correlation LM Test, Ramsey's RESET test, Normality Test and Heteroscedasticity test. The result of these tests as presented in table 4 shows that, the model passes all the diagnostic tests except the normality test. The diagnostic tests applied to the model point out that there is no evidence of serial correlation and heteroscedasticity. Besides, the RESET test

implies the correctly specified ARDL model. Only the skewness and kurtosis of residuals based on normality test shows that the residuals are not normally distributed.

Considering specifically the short run dynamics, it is shown that FSD is positively influenced by the previous year development and the estimated coefficient of the error correction term is highly significant, thus confirming the previous results that there is a long-run relationship between the variables. Furthermore, the magnitude of the estimated coefficient of the error correction term suggests a relatively high speed of adjustment to any disequilibrium in the short run. In other words, the estimated ECM_{t-1} is equal to 0.01which states that the departure from the equilibrium is adjusted by 1% per year.

D. Estimated Long Run Coefficients

Hence, the cointegrating equation and long run coefficients are specified below

Cointeg = FSD + (0.0000*M2 – 0.0321*EXR – 0.2737*INT + 9.3848*TO + 11.0506*FO + 0.0136*TGE – 0.1045*INF + 14.9763.

Table 5: Long run coefficients

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
M2	0.000004	0.000002	2.380319	0.0276
EXR	-0.032123	0.031275	-1.027123	0.3799
INT	-0.273655	0.192956	-1.418220	0.2512
TO	9.384772	9.208876	2.019101	0.0232
FO	11.050640	3.403630	3.246722	0.0476
TGE	0.013563	0.005981	2.267555	0.1082
INF	-0.104502	0.026081	-4.006835	0.0279
C	14.976310	4.022037	3.723563	0.0337

Source: Author's computation Obtained from E-views 9

From the result presented in table 5, all the estimated long-run coefficients are significant at 5% except for exchange rate, interest rate and total government expenditure.

Summary and Conclusion

FSD is important as it makes available funds for the development of the country by efficient allocation of financial resources. This study examines the effect of macroeconomic variables on FSD in Nigeria. The result suggests FSD depends on money supply, interest rate, financial openness and inflation in Nigeria while, exchange rate, trade openness and total government expenditure are not significant. The results from the ARDL model shows that the following independent variables: money supply, interest rate, financial openness and inflation have statistically significant effect on PSC as percentage of GDP. .

On the basis of the findings, the study recommends that the current policy encouraging trade and financial openness in Nigeria should be enhanced to increase capital and trade inflow and the monetary authorities should keep a close eye on money supply, interest and inflation rate as the financial sector respond to changes in these variables the most.

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